École des Hautes Études en Sciences Sociales

École doctorale de l'EHESS

Centre de Recherches sur les Arts et le Langage

Doctorat

Discipline : Philosophie

OMBRE TARRAGNAT

Autism and Animality

An Antispeciesist-Posthumanist Philosophy of Neurodiversity

Thèse dirigée par : Marta Segarra Montaner et Hanna Meißner

Date de soutenance : le 5 juin 2026

Jury

1. Cecilia Åsberg, Linköping University (rapporteure)
2. Thierry Hoquet, Université Paris Nanterre (examinateur)
3. Michael Lundblad, University of Oslo (rapporteur)
4. Hanna Meißner, Technische Universität Berlin (co-directrice)
5. Marta Segarra Montaner, CNRS, École des Hautes Études en Sciences Sociales (directrice)

ACKNOWLEDGEMENTS

Posthumanist feminism teaches us that beings and knowledge are produced relationally rather than individually. Autistic a/sociality, meanwhile, raises the question of neurotypical norms of sociality and the risk of seeing one's individuality dissolved in the logic of the group. However, although I do prefer to read and write alone despite repeated invitations from colleagues and friends to join them at the library (I appreciate the gesture, but please don't invite me anymore!), the intellectual, affective and scientific work underlying this thesis was deeply relational. It was so in a neurodivergent way, in the way that asynchronous exchanges of texts and emails create more intimate and neural connections than most *viva voce* interactions. It was so through participation in collective spaces that nourish me as much as they exhaust, alienate, and isolate me. It was so in the construction of dyadic interpersonal bonds that allow me to better negotiate the space between myself and others. I would like to take a moment to name and acknowledge these typical and less typical connections and the people involved.

Je tiens tout d'abord à exprimer ma sincère gratitude à ma directrice de thèse, Marta Segarra, pour avoir soutenu et cru en mon travail pendant six ans, d'abord dans le cadre d'un master en études de genre, puis lors de mon doctorat. L'espace collectif chaleureux que tu as créé pour tes doctorant·es, ta grande disponibilité, tes mots de réassurance et tes retours encourageants m'ont porté·e lors des moments de doute et d'insécurité. J'ai aussi beaucoup appris de ton attention aux détails et de ta fine connaissance des pensées féministes. Je te suis enfin reconnaissant·e de m'avoir permis d'explorer librement des questions et des méthodologies qui s'écartaient parfois des traditions académiques et de m'avoir accompagné·e dans des démarches administratives nombreuses et complexes, qui demeurent parfois obscures pour moi. I am thankful to my co-supervisor, Hanna Meißner, for generously agreeing to host me at the Zentrum für Interdisziplinäre Frauen- und Geschlechterforschung in Berlin, where I received helpful feedback on my work and had the opportunity to learn about interesting new perspectives and methods. I deeply appreciate your insightful comments on my thesis manuscript and the moral support you gave me in the final stages of writing.

Merci au Laboratoire d'Études de Genre et de Sexualité et à l'école doctorale Pratiques et théories du sens de l'Université Paris 8 Vincennes Saint-Denis d'avoir financé mes activités de recherche au fil des ans, ainsi qu'au Centre de Recherches sur les Arts et le Langage et à l'école doctorale de l'École des Hautes Études en Sciences Sociales d'avoir financé les dépenses liées à mon jury de thèse. I am also grateful for the funding I received from Erasmus+, the Institut du Genre, and the Wellcome Trust during my doctoral training, which offered me some financial security despite the lack of a paid doctoral position. Thank you to Bettan and Alma at Linköping University, and to Gudrun and Yvonne at the Technische Universität Berlin for your hospitality.

This thesis was also supported by several scholars who have kindly offered me guidance, support, and encouragement. *Tusen tack* to Cissi Åsberg for your continued enthusiasm and support for my work, for your warm welcome at Tema Genus in 2025 and for trusting me to explore new contact zones within The Posthumanities Hub. I keep fond memories of the moments we shared in Sweden, whether at the gym, during our shady hours, or on our trip to

Omberg. Thank you to Mike Lundblad for your immediate openness to meeting in Oslo, exchanging ideas, and exploring potential collaborations – I look forward to learning more from and with you in the EcoNeuro group and beyond. Thank you to Abs S. Ashley, my ND Hums mentor, for your readiness to share work in progress, for exploring more-than* potentials with me, and for helping me navigate the normative logics of academia. Merci à Christine Daigle pour ton enthousiasme vis-à-vis de mon travail et ta disponibilité pour échanger. Thank you to Evelien Geerts for being so ready to connect and eager to support my work. I have not found the time to visit you in Cork… yet! Thank you to Dawn Prince-Hughes for the beautiful energy, warmth, and generosity you've shown me from the beginning. I am excited for our collaboration with the autism and animality series at CASY.

Much of this thesis's content was developed through participation in seminars, symposia, conferences, and a summer school, as well as through publications in academic journals and collective volumes. Thank you to those who supported my work by offering editorial labour in different publication venues: Abs S. Ashley, Nicolas Aude, Carlo Brentari, Kate Fortner, Camille Froidevaux-Metterie, Nathalie Gontier, Nathalie Grandjean, Martin Huth, Mélanie Lallet, Andrés Padilla, Danielle Perrot-Corpet, Ela Przybyło, Pauliina Rautio, Carlo Salzani, Sabine Schwarz, Tuure Tammi, Morten Tønnessen, Berenice Vargas García, Nick Walker, and all copyeditors and typesetters who prepared my texts for publication. Thank you to my Spanish translators: Laura Mejía, Maria Paula del Portillo Cure, and Marcela del Portillo Cure.

My gratitude also goes to the many anonymous peer reviewers who took the time to read and comment on my work, for helping me structure my ideas and pushing me to do better. Thank you also to those who keep the spirit of critical friendship and companionship alive by curating wonderful spacetimes for developing, sharing, and revising ideas, and for meeting inspiring people. I feel privileged and honoured for getting to participate in your events: Emma Bigé, Robert Craig, Louise Creechan, Maria Dębińska, Sam Ducourant, Ruby Faure, Ruadhán J. Flynn, Rachel Lapicque, Annegret Marten, Phœbé Mendes, Benedetta Piazzesi, Julia Sánchez-Dorado, Hillevi Lenz Taguchi, Nolwenn Veillard, Eloïse Vo, Rebecca Wismeg-Kammerlander, Ben Woodard, Sarah Zanaz, and too many more to name in full. A warm thank you is also due to all the conference friends I made, whom I might not always have gotten the chance to meet again, but whom I'm always happy to hear and learn from: Chunye, Dagmara, Diana, Hester, Hortense, Imane, Jess, Judith, Julita, Mirjami, Prerna, Radu, Tarsh, Victoria, and many more. Thank you for making me feel like I belong and for shaping my intellectual, professional, and personal journey.

This thesis's preparation has also been supported (and at times slowed down) by several side quests, which have taught me a lot. A special thank you goes to my co-authors, co-editors, co-organisers, and co-performers for embarking on exciting and ambitious projects with me, sometimes over multiple years: Aurore Franco-Ricord, ma marraine et complice dans l'université, de continuer à nourrir le lien malgré nos trajectoires divergentes ; B., for the friendship and for sharing your creative vision; Riina Hannula, for your kindness and generosity in co-authoring; Karine Katia Bénac, Heta Rundgren, Irène Gimenez et Marion Jasseron, pour les beaux moments partagés dans le travail performatif et l'écriture.

Thank you to those who contributed to the publications I (co-)edited and the events I (co-)organised, for trusting me with your work – I learned a lot from you – and trying to do academia more gently together: Jo Abillama, Tom-Rolef Ben-Shahar, Philip Bowditch, Camille C., Sophie Ciurlik Rittenbaum, Tasha Downs, Helen Edgar, Lucas Aloyse Fritz, Amy Gaeta, David Gray-Hammond, Cara-Julie Kather, iuri martin-cabétich, Lloyd Meadhbh Houston,

Savannah J. Kilner, Emma Machado de Souza, Cyiel Morgado, Myrlin S. Cloud, Clara Nicolas, Lucile Richard, Monika Rogowska-Stangret, and many more.

Merci à mes collègues et ami·es au LEGS, où j'ai passé les premières années de mon doctorat : Flavia Bujor, Lucia Direnberger, Tatia Dvali, Marie-Dominique Garnier, Bénédicte Gattère, Mélanie Gourarier, Nassira Hedjerassi, Flora Malverde, Hélène Nicolas, Maïa Petoton, Claudia Simma, Marion Tillous, Valentina de Gregorio et les autres. Ce furent certainement des années difficiles pour le laboratoire, mais je n'oublierai pas la manière d'être ensemble propre aux études de genre. Merci à mes étudiant·es à l'Université Paris 8 pour les beaux moments de partage et d'apprentissage en commun. Merci au groupe très international de doctorant·es de Marta Segarra pour nos rencontres toujours bienveillantes et soutenantes : Alejandra, Cleome, Gemma, Júlia, Julieta, Laura, Lysistrata, Maria et María, Oriol et Stéphanie. Vielen Dank auch an die Doktoranden von Hanna Meißner für den freundlichen Empfang in Berlin: Celine, Eric, Hanyu, Josephine, Nina, Veronika.

Thank you to those in Paris, Linköping, or elsewhere, who became much more than colleagues, but genuine friends. Thank you to my dear chimeras, Maria Hylberg and Else Werring, for the long and passionate conversations over Zoom or emails, for your generosity in sharing and receiving, which sustained my thinking, and for showing me around Stockholm and Oslo. I hope you'll come to Paris sometime! Thank you to Issy Clarke for being so authentic and kind, always – I'm sure I owe you an email. Thank you to Laura Larrodera Arcega for being so eager to connect and for pushing me to make the most out of my time in Sweden; I miss our field trips around town and to the cemetery. Muchas gracias a Laura Restrepo-Giraldo por tu amistad tan atenta y por el valioso apoyo que me has brindado tanto en mi investigación como en las dificultades del día a día. Estoy muy agradecide por este encuentro fortuito en Viena. Thank you to Tuja Torvaldsson for sharing your tremendous kindness, wisdom, and the joys of neuro/queerness. I truly enjoyed our neighbourly visits and walks, and our lovely trip to Gothenburg. I appreciate you taking the time to read my general introduction and giving me feedback. Thank you to Christl, Dominika, Jenny, Sarah, Signe, Toby, and all others for making my stay in Linköping much more fun and entertaining than I had been promised.

Je n'oublie pas mes ami·es et mes proches, dont le soutien et les encouragements ont rythmé ce travail. Merci à Aurore, Cécilia, Enola, Flore, Júlia, Lisa, Lou, Magali, Max et Miel d'être venu·es assister à mes cours et mes interventions publiques et/ou de m'avoir donné de l'encouragement au cours de mon doctorat. Je remercie également mes parents pour le soutien financier qu'iels m'ont apporté pendant mes études, sans lequel il n'aurait pas été possible de terminer ma thèse en quatre ans. Merci à ma mère, Corinne, pour m'avoir encouragé·e à pratiquer la recherche de manière plus durable, malgré ma tendance au perfectionnisme et à l'épuisement. Merci à mon père, Franck, pour l'intérêt et la fierté qu'il a manifestés pour mon travail. Enfin, cette thèse n'aurait pas été ce qu'elle est sans le soutien indéfectible de mon compagnon, Eliott : merci de croire en moi depuis le premier jour et de continuer à m'encourager à suivre mes aspirations même lorsqu'elles me conduisent loin de toi.

ABSTRACT AND KEYWORDS

Autism and Animality: An Antispeciesist-Posthumanist Philosophy of Neurodiversity

Abstract

This thesis examines the intersection of autism and animality from a philosophical perspective. It introduces an antispeciesist-posthumanist approach to neurodiversity, which demonstrates the co-construction of speciesism and neuronormativity, the dialectic of humanisation and animalisation in humanism, the role of (autistic) animality as constitutive other of (typical) humanity, and the relevance of a subversive reclamation of autistic animality to the horizon of total liberation.

The first part investigates the joint construction of traditional conceptions of humanity and animality with various figures of autistic disability (such as disharmony, disorder, and disease) in Western modernity-coloniality. To this end, the first three chapters draw on the theoretical frameworks of critical posthumanism and the dishuman approach to study the theories of Jakob von Uexküll, Kurt Goldstein, and Arnold Gehlen. They introduce a methodology of parasitic readings which seeks to interrogate the role that disability plays in the genealogies of post/humanist philosophies. Part I reveals how autistic disability is invested both through repressed or fetishised figures of animality and as a tool for maintaining the conservative and in/humanist social order, thereby crystallising some of the major tensions of a 'dishuman modernity'.

The second part focuses on the role played by animality and nonhuman animals in neurodiversity studies and the neurodiversity movement, once again both constitutive and marginalised. It draws on the confrontation of sometimes opposing theoretical frameworks, namely critical animal studies, philosophical ethology, and intersectional feminist posthumanism, which are brought into dialogue using the methodology of 'troubling'. Through an examination of neurodiversity studies' engagement with the life sciences, the last three chapters emphasise the effects of humanism in the history of autism and in the neurodiversity movement: neurodiversity as biodiversity without nonhuman animals, neurological discourse as an apparatus of bestialisation of neurodivergence, and behaviourist models as technologies of speciation. Based on these observations, Part II proposes a more-than-human and more-than-neurological turn in neurodiversity studies, materialised by the perspective of ethodiversity. With what we will call ethodivergence, the aim is to reclaim the position of autistic animality, to promote autistic communities' allyship with nonhuman animals, and to foster coalitional praxis between antispeciesist and neurodivergent movements.

Keywords *Autism – Animality – Neurodiversity – Antispeciesism – Posthumanism – Dishuman Modernity – More-Than-Human and More-Than-Neurological Turn – Ethodiversity*

RÉSUMÉ ET MOTS CLÉS

L'autisme et l'animalité. Une philosophie antispéciste-posthumaniste de la neurodiversité

Résumé

Cette thèse examine l'intersection entre l'autisme et l'animalité dans une perspective philosophique. Elle propose une approche antispéciste-posthumaniste de la neurodiversité, démontrant la co-construction du spécisme et de la neuronormativité, la dialectique de l'humanisation et de l'animalisation dans l'humanisme, le rôle de l'animalité (autiste) comme altérité constitutive de l'humanité (typique), et la pertinence d'une revendication subversive de l'animalité autiste suivant un horizon de libération totale.

La première partie investigue la construction croisée des conceptions traditionnelles de l'humanité et de l'animalité avec diverses figures du handicap autistique (telles que la disharmonie, le désordre et le dysfonctionnement) dans la modernité-colonialité occidentale. À cette fin, les trois premiers chapitres s'appuient sur les cadres théoriques du posthumanisme critique et de l'approche dishumaine pour étudier les théories de Jakob von Uexküll, Kurt Goldstein et Arnold Gehlen. Ils proposent une méthodologie des lectures parasitaires, qui vise à interroger le rôle du handicap dans les généalogies des philosophies post/humanistes. La partie I révèle comment le handicap autistique est investi à la fois à travers des figures réprimées ou fétichisées de l'animalité et comme instrument de maintien de l'ordre social conservateur et in/humaniste, cristallisant ainsi certaines des tensions majeures d'une « modernité dishumaine ».

La seconde partie s'intéresse au rôle joué par l'animalité et par les animaux·ales non humain·es dans les études et le mouvement de la neurodiversité, là encore à la fois constitutif et marginalisé. Elle s'appuie sur la confrontation de cadres théoriques parfois opposés, à savoir les études animales critiques, l'éthologie philosophique et le posthumanisme féministe intersectionnel, mis en dialogue selon la méthodologie du « semer le trouble ». À travers un examen du rapport des études de la neurodiversité aux sciences de la vie, les trois derniers chapitres mettent en évidence les effets de l'humanisme dans l'histoire de l'autisme et dans le mouvement de la neurodiversité : la neurodiversité comme biodiversité sans animaux·ales non humain·es, le discours neurologique comme dispositif de bestialisation de la neurodivergence, et les modèles béhavioristes comme technologies de spéciation. Face à ces constats, la partie II propose un tournant plus-qu'humain et plus-que-neurologique dans les études de la neurodiversité, incarné par la perspective de l'éthodiversité. Avec ce qu'on appellera l'éthodivergence, il s'agit notamment de réinvestir la position de l'animalité autiste, de favoriser l'alliance des communautés autistes avec les animaux·ales non humain·es et de façonner des pratiques de coalitions entre mouvements antispécistes et neurodivergents.

Mots clés *Autisme – Animalité – Neurodiversité – Antispécisme – Posthumanisme – Modernité dishumaine – Tournant plus-qu'humain et plus-que-neurologique – Éthodiversité*

TABLE OF CONTENTS

Acknowledgements **3**

Abstract and Keywords **6**

Résumé et mots clés **7**

Note on Language **13**

General Introduction **14**

Autism: Between Critical Disability Studies, Critical Neurodiversity Studies, and Critical Autism Studies 16
Animality: Between Critical Animal Studies, Animality Studies, and Posthumanism 26
Core Arguments 31
Reflections on Philosophical Discipline and Methods 33

Part I – Dishuman Modernity: Parasitic Readings of Autism into Post/Humanist Philosophies **42**

Introduction: Autism as a Figure of Dishuman Modernity 42
Post/Humanist Philosophies 44
Dis/Ability and Dishuman Modernity 48
Parasitic Readings 52

Chapter 1 – From the Tick to the Autistic: Jakob von Uexküll's Umwelt Theory **56**

Introduction 56
I — Umwelt Theory and Its Reception 58
1. Introducing Jakob von Uexküll's Umwelt Theory 58
2. Parasitic Readings of Uexküll in Twentieth-Century French and German Philosophies 68
3. Genealogies of Umwelt Theory as Proto-Posthumanism and Conservative Political Biology 71
II — Parasitic Readings of Umwelt Theory, from the Tick to the Autistic 80
1. Parasitic Readings: A Posthumanist Methodology through Michel Serres 80
2. Reclaiming Autis/tick Parasitism 87
3. A Foray into the Bubbles of Autistics: The Phenomenology of Being-in-the-World from Umwelt Theory to the Intense World Theory 91
a) Autistic Bubbles as the Paradigm of Animal Disconnection in Umwelt Theory 96
b) Autistic Bubbles as a Pathological Reaction in the Intense World Theory 101
Conclusion 107

Chapter 2 – From the Sick to the Autistic: Kurt Goldstein's Theory of the Organism **109**

Introduction 109
I — The Theory of the Organism and Its Reception 110
1. Introducing Kurt Goldstein's Theory of the Organism 111
2. Parasitic Readings of Goldstein in Twentieth-Century French Philosophy 118
3. Genealogies of the Theory of the Organism as (Neo-), Non-, and Post-Humanism 121

II — Parasitic Readings of the Theory of the Organism from the Sick to the Autistic 129
1. Genealogies of Disability, Neurodiversity, and Pathology Lite in the Theory of the Organism 130
a) Goldstein and Disability 130
b) Goldstein and Neurodiversity 133
2. Parasitic and Dis/Orderly Readings of Autism in Goldstein 141
a) Autism and the Abstract Attitude 142
b) Autistic Dis/Order and Parasitic Symbiosis 147
Conclusion 151

Chapter 3 – From the Weak to the Autistic: Arnold Gehlen's Theory of the *Mängelwesen* 152

Introduction 152
I — The Theory of the *Mängelwesen* and Its Reception 152
1. Introducing Arnold Gehlen's Theory of the *Mängelwesen* 153
a) An Anthropological Theory 154
b) A Theory of Action 158
c) A Theory of Institutions 160
2. Parasitic Readings of Gehlen in Twentieth-Century French and German Philosophies 162
3. Genealogies of the Theory of the *Mängelwesen* as Neo-, Post-, Trans-, and Anti-Humanism 166
II — Parasitic Readings of the Theory of the *Mängelwesen* from the Weak to the Autistic 176
1. Dishumanity and Disanimality in the Theory of the *Mängelwesen* and the Handicap Principle 177
a) The *Mängelwesen* as a Dishuman Subject 177
b) The Handicap Principle as a Form of Disanimality 182
2. The Autistic *Mängelwesen*: Relief as a Dis/orderly Response to Sensory Overstimulation 186
Conclusion: Dis/orientating Autism 190

Part II – Towards a More-Than-Human and More-Than-Neurological Turn in Neurodiversity Studies 192

Introduction: Animality as a Constitutive Other of Neurodiversity 192
Genealogies of Animality in Neurodiversity Studies 192
The Co-Construction of Speciesism and Neuronormativity 194

Chapter 4 – Towards a More-Than-Human Turn in Neurodiversity Studies 205

Introduction 205
I — More-Than-Human Troubles in Neurodiversity Studies 205
1. From Biodiversity to Neurodiversity: Ecology, Anthropocentrism, and the Exclusion of Nonhuman Animals 207
a) Neurodiversity as Biodiversity without Nonhuman Animals 207
b) Neurodiversity as a Tool for Biodiversity Conservation 212
2. Autistic Humans and Nonhuman Animals: Neurodivergent Speciesism and Neurodivergent Veganism 217
a) Autistic Women and Nonhuman Animals: Temple Grandin's and Dawn Prince-Hughes's Memoirs 223
b) From Natural Affinity with Animals to an Ethics of Non-Innocence 234
c) Neurodivergent Veganism and the Trouble with Humanism 237
3. Disanimality and A(û)nimality: Mapping the Intersection of Disability, Neurodiversity, and Critical Animal Studies 243

a) Disanimality, or the Animal Trouble in Disability Studies 243
b) A(û)nimality, an Autistic Approach to Animality in (Post)Colonial Contexts 248
II — Troubling the More-Than-Human Turn: Neurodiversity as a Site of Antispeciesist-Posthumanist Critique 258
1. We Have Never Been Human: Technologies of Speciation, Apparatuses of Bestialisation 259
a) Dehumanisation and Animalisation 259
b) Beasts, *Bêtise*, and Bestialisation 266
2. Neurodiversity as Species Trouble: A Critical Genealogy of Neurotypicality 278
a) Neurodiversity as Species Trouble: A Critical Genealogy of Neurotypicality 280
b) Neurodiversity as Antispeciesist-Posthumanist Critique 284
3. Neurodiversity Is Not (Only) a Humanism: Reflections on Political Strategy 287
a) Neurodivergent Humanism in Neoliberal Times 288
b) Troubling Humanism in Times of Neofascist Resurgence 290
Conclusion 294

Chapter 5 – Towards a More-Than-Neurological Turn in Neurodiversity Studies 296

Introduction 296
I — The Trouble with the 'Neuro' in Neurodiversity 296
1. From Neurology to Neurodiversity: Neuroreductionism as an Apparatus of Bestialisation 297
a) Neurology as a Foundation of Neurodiversity 298
b) Neuroreductionism as Bestialisation 300
2. Situated Knowledges and the Science Question in Autism: More-Than-Human Metaphors of Autistic Neurology in the Theory of Monotropism 303
a) The Theory of Monotropism as Situated Knowledge of Autism 308
b) The Non-Innocence of More-Than-Human Metaphors for Autistic Neurocognition 310
c) The Bestialisation of Monotropic Neurology: The Legacy of Mechanistic Biology 319
d) Conclusion: Towards Epistemic Response-Ability in Autistic Situated Knowledges 324
3. The Neurodivergent Politics of Neurology and the Temptation of Innocence 325
a) The Neurological Turn and the Neurocultures of Neurodiversity 325
b) The Politics of Neuro-identitarianism and Neuroessentialism 327
II — Troubling the Neuro- in Neurodiversity Studies: Neuroqueer Theory, Neurofeminism, Posthumanism 329
1. Neuroqueer Theory and the Subversion of Neurocentrism 330
a) Neuroqueering As Queering the 'Neuro-' 331
b) Anthropocentrism and the Trouble with Neurology 333
c) Towards a More-Than-Neurological Turn in Neuroqueer Theory: Post-Humanistic Psychology 335
2. Learning from Feminism: Reconsidering the Neurobiology of Autism 337
a) Neurofeminism and the Limits to Anti-Essentialism 337
b) Towards Neurodivergent Theories of Autistic Neurology 339
3. Posthumanist and New Materialist Approaches to Neurology 346
a) Neuroplasticity from Neoliberal Individualism to More-Than-Human Co-Regulation 346
b) Neuro-Holographic Thinking and Holotropism: New Materialist Approaches to Neurodivergence? 349
Conclusion: The End(s) of Neurocentrism 357

Chapter 6 – Ethologies of Autism: An Antispeciesist-Posthumanist Framework for Neurodiversity 359

Introduction 359
I — Autism and Animality in the Behavioural Sciences 359
1. The Co-Construction of Autism and Animality in Behaviourism: Animal Models as Apparatuses of Bestialisation 361
a) Applied Behaviour Analysis and Bestialisation 363
b) The Co-Construction of Autism and Animality in Autism Science: Introducing Animal Models 367
c) The Onto-Epistemology of Animal Models: Pathologisation, Reductionism, Analogism 371
d) A Non-Subjective Autism: Behaviourism and the Bestialisation of Model Animals 378
2. From Animal to Human Ethology: The Ethological Theory of Autism as a Technology of Speciation 382
a) Introducing Nikolaas and Elisabeth Tinbergen's Ethological Theory of Autism 385
b) A Parasitic Reading of the Ethological Theory of Autism 389
3. Animal Neurodivergence in the Neurodiversity Movement and Animal Psychiatry 393
a) Are All Cats Autistic? 394
b) Autism-Like and HsHa in Animal Psychiatry 396
II — Reclaiming Behaviour, Queering Ethology: Towards Ethodiversity 400
1. Ethodiversity: A More-Than-Human and More-Than-Neurological Framework for Neurodiversity 401
a) Introduction: From Scientific Ethology to Philosophical Ethology 401
b) Ethodiversity, Ethodivergence, and the Politics of Ethos 405
c) Ethonormativity and the Ambivalence of Ethodivergence 412
d) The Ecology and Biopolitics of Ethological Diversity 419
2. Queer Ethologies and Queersomatic Practices: Queering Species and Somaticity 421
a) Introducing Queer Ethologies and Queersomatic Practices 422
b) Autistic Stimming as a Queersomatic Practice 428
3. A(û)nimal Conspiracies: From Transspecies (Neuro)kinship to Ethodivergent Solidarity 434
a) Doing Philosophy with Model Animals: A Note on Positioning and Method 434
b) Autimouse_Meets_Autistic_Human@Autism_Science 435
c) From Transspecies (Neuro)kinship to Ethodivergent Solidarity 439
4. Becoming Autistic, Becoming Animal, Unbecoming Human: A(û)nimal Epiphany and Therianthropy 444
a) A(û)nimal Epiphany: Towards A(û)nimal Conspiracies 446
b) A(û)nimal Therianthropy: Towards Coalitional Resistance to Ethonormativity 454
Conclusion 465

General Conclusion 466

Summary of the Arguments 466
Limits and Horizons 470

Bibliography 473

Appendix 1: Glossary 522

Appendix 2: Résumé substantiel en français **529**

Introduction générale **534**

L'autisme : entre études critiques du handicap, études critiques de la neurodiversité et études critiques de l'autisme 536
L'animalité : entre études animales critiques, études de l'animalité et posthumanisme 547
Arguments principaux 552
Réflexions sur la discipline philosophique et la méthode 555

Partie I – Modernité dishumaine : lectures parasitaires de l'autisme à travers les philosophies post/humanistes **565**

Introduction: L'autisme comme figure de la modernité dishumaine 565
Philosophies post/humanistes 567
La dis/capacité et la modernité dishumaine 572
Lectures parasitaires 576

Partie II – Vers un tournant plus-qu'humain et plus-que-neurologique dans les études de la neurodiversité **581**

Introduction : L'animalité comme autre constitutif de la neurodiversité 581
Généalogies de l'animalité dans les études de la neurodiversité 581
La co-construction du spécisme et de la neuronormativité 584
Semer le trouble dans le tournant plus-qu'humain : vers une critique antispéciste-posthumaniste 586

Conclusion générale **595**

Synthèse des arguments 595
Limites et horizons 599

Appendix 3: Tweets **602**

NOTE ON LANGUAGE

Linguistic conventions suggest that individual nonhuman animals should always be referred to with the pronoun ‘it’ unless they are explicitly personified and gendered (for example, pets), in which case, gendered pronouns (such as ‘he’ and ‘she’) can be used. This thesis resists the reduction of nonhuman animals to undifferentiated masses and the denial of their personhood. It uses they/them pronouns for both singular and plural, and gendered pronouns when the sex/gender of the animal is known and/or relevant to the argument. In the parts translated into French, inclusive spelling is used throughout for both human and nonhuman animals, such as in ‘humain·es autistes’ (autistic humans) and ‘animaux·ales non humain·es’ (nonhuman animals), or through the nonbinary pronouns ‘iels/elleux’.

I have also elected to speak of autistic/neurodivergent people and autistic/neurodivergent communities in the third person plural ‘they’ even though I am part of this community. While using ‘we’ might have allowed me to decentre the neurotypical perspective and forced the allistic/neurotypical reader to adopt the standpoint of the neurodivergent, this raised potential concerns. One issue might have been the homogenisation of a collective ‘we’ and the subsequent universalisation of my perspective as representative of autistic and neurodivergent communities. Another issue concerned the potential ambiguity of some sentences, where it might no longer have been clear who was referred to: ‘we’ autistic people, ‘we’ the community of readers, or perhaps the potentially problematic ‘we’ human beings. This being said, using ‘they’ might produce a sense of epistemic objectification, as if autistic people were being studied from the outside. I want to insist that this thesis is written *about* autistic people, but also *with* autistic people (so to speak), and *from within* autistic experience.

GENERAL INTRODUCTION

One night, a young autistic boy discovers that his neighbour's dog has been brutally murdered, impaled with a garden fork. As he embraces the animal's lifeless body, he is spotted by the neighbour, who alerts the authorities. The child, who will bear the animal's mourning alone over the following weeks, is wrongly accused of a crime he did not commit. What follows is a methodical investigation to identify the perpetrator of the murder, which the young Christopher chronicles in an atypical book. Such is the synopsis of a literary work that marked my youth as an undiagnosed autistic child and an antispeciesist in the making.[1] Admittedly, it would be excessive to suggest that this book led me to the discovery of my autism or to my political commitment in favour of nonhuman animals. To be frank, I had at the time entirely overlooked Christopher's autism – which is not explicitly stated in the novel – and, even if my memory of this eludes me today, my phobia of dogs had likely left me indifferent to Wellington's fate. And yet, many years later, what a surprise it was when, as I embarked on a philosophical research into autism and animality, I came across a novel that brought together two of the central concerns of my adult life and academic work.

More curiously still, the novel appears to exhibit features that resonate with the arguments developed in this thesis. According to disability studies scholars David T. Mitchell and Sharon L. Snyder, for instance, 'Christopher's cross-species identifications serve as the source of *species trouble*'[2]: the child's atypical attraction to this dead animal is indeed assimilated to the 'nonnormative behaviors'[3] he displays as a result of his autism. As the only human to care about the animal's death, the young boy would therefore embody a distinctly autistic attitude of 'nonspeciesism',[4] a way of relating to nonhuman animals that breaks with human(ist) norms. It is as if, somehow, the young autistic child were more animal than his fellow humans. But what exactly is to be understood by this? Through what logic does an autistic subject's affinity for animals come to call their own humanity into question? Which human(ist) ideals are at work in this intersection – at once imposed and potentially reclaimable – between autism and animality?

[1] Mark Haddon, *The Curious Incident of the Dog in the Night-Time*, London: Vintage Books, 2004.
[2] David T. Mitchell and Sharon L. Snyder, 'Precarity and Cross-Species Identification: Autism, the Critique of Normative Cognition, and Nonspeciesism', in *Disability Studies and the Environmental Humanities: Toward an Eco-Crip Theory*, ed. Sarah Jaquette Ray and Jay Sibara, Lincoln and London: University of Nebraska Press, 2017, p. 556.
[3] *Ibid*.
[4] *Ibid*., p. 564.

Before turning to the theses advanced in this philosophical study into autism and animality, it is necessary to return to the key terms that make up its title.

What's in a title? As a research project on 'autism and animality', this is not a thesis about 'the autistic' and 'the animal', understood as the two individuals who appear in Mark Haddon's novel. Nor are these hypothetical 'autistic' and 'animal' two subject positions, or two identities. Rather, this is a study about two nouns, two substantives, whose nature remains to be elucidated. One is an -ism, but it is not an ideology; rather, it refers to a condition or quality of given beings: the autistic. The other could have been an -ism – i.e. animalism, a political ideology and movement in favour of animals – but is instead an -ity, once more a quality or condition: that of the animal. We are, then, faced with two conditions, so to speak, which are brought together in ways yet to be determined.

Just as the autistic and the animal in Haddon's novel, these two conditions are brought together in this title: autism *and* animality. What does the conjunction entail here? What is so problematic about this encounter that one should dedicate an entire philosophical study to clarifying it? Are autism and animality marked by a relationship of proximity, analogy, or identity, or is this pairing rather characterised by distance, tension, or mutual exclusion? If we are to follow Mitchell and Snyder's commentary on Haddon's novel, it appears that 'autism and animality' might perhaps be rephrased as 'autism *as* animality'. Christopher's concern for the death of Wellington and his readiness to partake in (hum)animality – as opposed to typical humanity – corroborate this proposal.

Why should one, in order to account for the relationship between the autistic and the animal, turn to the underlying state, quality, or condition? Perhaps this is because the very nature of the relationship, and what one might say about it, depends on the way one perceives and describes the nature of its stakeholders. The social constructions represented by autism and animality, then, are at stake in the encounter between the autistic (young boy) and the (dead) animal (body), and perhaps they are reconfigured by this encounter. That Christopher embodies a form of 'species trouble' as Mitchell and Snyder argue, suggests that, in the Western context which he navigates, his autism challenges the traditional human/animal binary.

And yet it is advisable not to jump to conclusions, for the animalisation of one autistic young boy – and a fictional one at that – is not equivalent to the animalisation of all autistic people, let alone of autism itself. In this regard, the animality found in the encounter between Christopher and Wellington is only one form of animality among many others, and Christopher's autism is certainly also only one form of autism among many others, especially considering that it is, in the novel, not presented as autism at all. Why should we speak of singular autism and animality, then, and not plural 'autisms' and 'animalities'? To clarify the

meanings that should be attached to these concepts and to their encounter, one must now introduce the various fields of scholarship that will guide this study.

Autism: Between Critical Disability Studies, Critical Neurodiversity Studies, and Critical Autism Studies

So, what is autism? This is a famously difficult question, and one that this thesis has no intention to examine in depth. However, for the sake of introduction, it is useful to provide some elements of historicisation, epistemologisation, and politicisation. Easier than defining autism is describing (and critiquing) the historical and scientific construction of autism.

The term 'autism' was coined in 1911 by Eugen Bleuler, a Swiss psychiatrist who took up and transformed Freudian 'auto-eroticism',[5] from which he removed the reference to eros. For Bleuler, autism was not a psychiatric syndrome in its own right, but a symptom of schizophrenia, characterised mainly by withdrawal. In 1943 and 1944, respectively, Ukrainian-American psychiatrist Leo Kanner[6] and Austrian psychiatrist Hans Asperger[7] published their famous clinical observations of autistic children, making the category 'autism' available for further elaborations. In the 1980s, British psychiatrists Lorna Wing and Judith Gould coined the notion of a 'triad of impairments', which encompassed deficits in social communication and imagination, impaired social interaction, and restricted and repetitive behaviours. These traits are grouped in two main 'symptom' categories in the current version of the Diagnostic and Statistical Manual (DSM) published by the American Psychiatric Association, the DSM 5.

Autism has gone through various turns in psychiatric and psychological thinking, from the early behaviourist and psychoanalytical regimes to the current neurocognitive, biomedical, and cognitive-behavioural frameworks. Since the end of the twentieth century, the clinical conception of autism has been grounded upon three core theories: deficit in the theory of mind, executive dysfunction, and weak central coherence. These theories all assume that autism is a psychiatric disorder marked by fundamental deficits. As Chapter 5 will also demonstrate, the neurological turn in the psychological sciences has constituted a radical shift, often in association with a biologisation of autism. In recent years, autism has thus been increasingly studied in biomedical settings, particularly in the neurobiological and genetic sciences. In these

[5] Eugen Bleuler, *Dementia Praecox or the Group of Schizophrenias*, New York: International Universities Press, 1950.
[6] Leo Kanner, 'Autistic Disturbances of Affective Contact', *Nervous Child*, vol. 2 (1943), pp. 217–50.
[7] Hans Asperger, 'Die autistischen Psychopathen im Kindesalter', *Archiv für Psychiatrie und Nervenkrankheiten*, vol. 117 (1944), pp. 76–136.

contexts, autism scientists have been trying to identify potential 'risk factors' and determine the biogenetic transmission of autism. These latter practices are examined in more detail in Chapter 6.

While naming the main scientific conceptions of autism is a necessary step for this study, it is just as important to note that autistic communities largely take offence at the scientific and psychiatric constructions of autism. Should the reader's understanding of autism rely, even marginally, on these scientific theories, they would be best advised to forget everything they might believe to know, for these are little more than ideological pillars of systemic and institutionalised violence against autistic people.

According to M. Remi Yergeau, for example, theories about the theory of mind are hurtful on multiple levels: by arguing that humans possess a theory of mind and that autistic people do not, these theories strip autistic people of their humanity.[8] They not only rely on a harmful representation of autism as a deficit in empathy and rhetoricity, but they also miss the deeply embodied nature of autism and the often intense connections that autistic people entertain with their environments. As critical autism studies scholar Damian Milton has beautifully shown, there is instead a 'double empathy problem' at play, whereby autistic and allistic – i.e. non-autistic – people fail to understand each other due to diverging modes of communication and empathy.[9]

Such arguments for unlearning and relearning what autism is could be proposed for each of the diagnostic criteria for autism.[10] This is not what this thesis is about, but I certainly do hope that the concepts and frameworks elaborated and discussed in these pages may help readers readjust their perception of autism. In this regard, starting with the autobiographical and scientific writings of autistic people is absolutely critical.[11] In recent years, scientific theories and models of autism – such as the Intense World Theory (Chapter 1) and the theory of monotropism (Chapter 5) – have been developed by autistic scientists and have successfully translated community expertise grounded in the lived experiences of autism into (partially) authorised conceptions and epistemologies. These new epistemologies have also been central

---

[8] M. Remi Yergeau, 'Clinically Significant Disturbance: On Theorists Who Theorize Theory of Mind', *Disability Studies Quarterly*, vol. 33, no. 4 (2013).

[9] Damian Milton, 'On the Ontological Status of Autism: The "Double Empathy Problem"', *Disability & Society*, vol. 27, no. 6 (2012), pp. 883–7.

[10] On the many myths that make up the hegemonic representation of autism, see Stimpunks, 'Navigating Autism Acceptance Month and Autism Myths', *Stimpunks*, n.d., accessed 29 January 2026. https://stimpunks.org/fieldguide/dei/navigating-autism-acceptance-month-and-autism-myths/.

[11] For introductions to autism by autistic people, see Nick Walker, 'What Is Autism?', *Neuroqueer*, n.d., accessed 29 January 2026. https://neuroqueer.com/what-is-autism/; or, for the book version, Nick Walker, 'What Is Autism?' In *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, Fort Worth: Autonomous Press, 2021, pp. 85–7; Autistic Collaboration, 'A Communal Definition of Autistic Ways of Being', *Autcollab*, 28 December 2021, accessed 29 January 2026. https://autcollab.org/projects/a-communal-definition-of-autism/; Stimpunks, 'Autism', *Stimpunks*, n.d., accessed 29 January 2026. https://stimpunks.org/glossary/autism/.

to the development of autistic self-advocacy and the neurodiversity movement, which I return to below.

The proliferation of scientific and theoretical perspectives on autism has been on the rise. However, these new (and sometimes partly problematic) findings and insights have not led to the unification of the category. The concept of autism remains profoundly undeterdetermined, to the point that some might argue for abandoning it altogether. Given the lack of scientific validity of psychiatric and biological constructions, and the many shifts the category has undergone over its eighty years of history, one would be justified in wondering whether the concept truly refers to a singular and unified reality in the real world. However, neurodivergent philosopher Robert Chapman has argued that 'autism may remain a meaningful and helpful classification' when understood 'as a social category'.[12] Other scholars, following these observations, have begun referring to autism in the plural form, speaking, for instance, of 'multiple autisms'[13] or 'the many autisms'.[14] These proposals echo the popular phrase in autistic communities, according to which 'if you've met one autistic person, you've met one autistic person', and certainly not autism itself.

Seeking to emphasise autistic voices in this thesis, I shall avoid drawing on medical sources wherever possible, unless it is for the sake of critique. These conceptions are already well-known and do not deserve further attention, let alone being positioned at the same level as the expert insights of autistic communities. However, the epistemological perspective developed in this thesis, which is indebted to the feminist epistemology of situated knowledges, calls for emphasising the multiplicity, non-homogeneity, and non-purity of subaltern knowledges. For example, it invites sustained attention to the intersectionality of autistic experiences that may also be experiences of racialisation, colonisation, feminisation, (de)sexualisation, precarisation, infantilisation, etc.

In this regard, the social, scientific, cultural, and political representations of autism have historically been marked by multiple layers of exclusion: they have centred, primarily, on white autistic boys from the Global North. The androcentrism of these representations is perhaps best evidenced by the mainstream strand of autism research, which routinely erases the pioneering work of Grunya Sukhareva, a Soviet child psychiatrist who was the first to describe and pathologise autism. In Moscow, Sukhareva conducted clinical observations on eleven young children whom she described in scientific articles in 1925-1926, some twenty years before

[12] Robert Chapman, 'The Reality of Autism: On the Metaphysics of Disorder and Diversity', *Philosophical Psychology*, vol. 33, no. 6 (2020), abstract.
[13] Jennifer S. Singh, *Multiple Autisms: Spectrums of Advocacy and Genomic Science*, Minneapolis and London: University of Minnesota Press, 2015.
[14] Anna Stenning, *Narrating the Many Autisms: Identity, Agency, Mattering*, New York and Abingdon: Routledge, 2024.

Asperger's and Kanner's publications.[15] Significantly, Sukhareva's work included both girls and boys, whereas Asperger's and Kanner's, which alone have gone down in history, focused almost exclusively on boys. The androcentrism and heteronormativity of autism research have also been evident in Simon Baron-Cohen's theory of autism as the result of an 'extreme male brain'[16] and the simultaneous development of behavioural therapies to 'cure' autistic and queer children (see Chapter 6). Some of the famous figures of the neurodiversity movement, such as Judy Singer, have also publicised their transphobic and essentialist views of autism and gender (see Chapter 5). To these problematic legacies, a wide range of autobiographical writings and academic scholarship has offered compelling counterarguments. Some have pointed out the deep imbrication of autism and transness,[17] emphasised the distance toward gender felt by many autistic people and the uniquely autistic forms of gender dis/identification,[18] or explored the idea of a 'female autistic phenotype'.[19] Overall, the intersection of autism, on the one hand, and gender and sexuality, on the other, is being increasingly researched in academic spaces.[20]

Studies on the intersections of autism with culture, race, and ethnicity are also overdue in academic spaces. While scholarship is increasingly addressing these matters, mainstream autism research and neurodiversity studies have yet to engage fully with these topics.[21]

---

[15] Grunya Sukhareva, 'Die schizoiden Psychopathien im Kindesalter', *Monatsschrift für Psychiatrie und Neurologie*, vol. 60, no. 3–4 (1926), pp. 235–47.

[16] Simon Baron-Cohen, 'The Extreme Male Brain Theory of Autism', *Trends in Cognitive Sciences*, vol. 6, no. 6 (2002), pp. 248–54.

[17] See Noah Adams and Bridget Liang, *Trans and Autistic: Stories from Life at the Intersection*, London and Philadelphia: Jessica Kingsley Publishers, 2020; Max Sparrow, *Spectrums: Autistic Transgender People in Their Own Words*, London and Philadelphia: Jessica Kingsley Publishers, 2020; Yenn Purkis and Wenn Lawson, *The Autistic Trans Guide to Life*, London and Philadelphia: Jessica Kingsley Publishers, 2021; Jake Pyne, 'Autistic Disruptions, Trans Temporalities: A Narrative 'Trap Door' in Time', *The South Atlantic Quarterly*, vol. 120, no. 2 (2021), pp. 343–61.

[18] See Jordynn Jack, 'Gender Copia: Feminist Rhetorical Perspectives on an Autistic Concept of Sex/ Gender', *Women's Studies in Communication* vol. 35, no. 1 (2012), pp. 1–17; Joyce Davidson and Sophie Tamas, 'Autism and the Ghost of Gender', *Emotion, Space and Society*, vol. 19 (2016), pp. 59–65; Marianthi Kourti and Andrea MacLeod, '"I Don't Feel Like a Gender, I Feel Like Myself": Autistic Individuals Raised as Girls Exploring Gender Identity', *Autism in Adulthood*, vol. 1, no. 1 (2018), pp. 1–8; David Jackson-Perry, 'The Autistic Art of Failure? Unknowing Imperfect Systems of Sexuality and Gender', *Scandinavian Journal of Disability Research*, vol. 22, no. 1 (2020), pp. 221–9.

[19] See Sarah Bargiela, Robyn Steward, and William Mandy, 'The Experiences of Late-Diagnosed Women With Autism Spectrum Conditions: An Investigation of the Female Autism Phenotype', *Journal of Autism and Developmental Disorders*, vol. 46, no. 10 (2016), pp. 3281–94; Lucie Kanfszer, Fran Davies, and Suzanne Collins, '"I Was Just so Different": The Experiences of Women Diagnosed With an Autism Spectrum Disorder in Adulthood in Relation to Gender and Social Relationships', *Autism*, vol 21, no. 6 (2017), pp. 661–9.

[20] See Hanna Bertilsdotter Rosqvist, Anna Day, and Meaghan Krazinski, *Exploring Autistic Sexualities, Relationality, and Genders: Living Under a Double Rainbow*, London and New York: Routledge, 2025; Ruby Hake and Emily Hughes, 'Autism and Gender' in *Contemporary Philosophy of Autism*, ed. Jami L. Anderson and Simon Cushing, pp. 79–92, New York and London: Routledge, 2026.

[21] See, for example, Amber Davis, Marjorie Solomon, and Harolyn Belcher, 'Examination of Race and Autism Intersectionality Among African American/Black Young Adults', *Autism in Adulthood*, vol. 4, no. 4 (2022), pp. 306–14; Amber M. Davis et al., 'Exploring Racial Discrimination, Disability Discrimination, and Perception of the Future Among Black-Identifying Emerging Adults with and without Autism in the United States: A Mixed-Methods Descriptive Study', *Journal of Child & Adolescent Trauma*, vol. 17 (2024), pp. 1019–34; Amber M. Davis et al., 'Resilience and Strengths in the Black Autism Community in the United States: A Scoping Review', *Autism Research*, vol. 17, no. 11 (2024), pp. 2198–222; Imane Kostet, 'The (In)visibilisation of "Ethnicity", "Race" and "Culture" as Constructs of Difference in Global North Autism Disparities

Autobiographical sources by racialised autistic people are also increasingly available, but remain largely marginalised.[22] In this regard, the co-construction of racism, coloniality, and neuronormativity (i.e. the social regulation of neurocognitive functioning, see more below) remains to be thoroughly examined. The same can be said of class matters and (anti)capitalism, which remain marginally discussed in academic research on autism,[23] contrary to activist autistic spaces, where they are slightly more common.[24] Forms of ageism are also found in the adultist focus on autistic childhood in traditional autism research, which presupposes that autistic children do not grow up to become autistic adults. Other forms of intersecting social positions, such as ability and species, are explored in depth in this thesis. To this end, I engage with scholarship adopting autistic, disabled, and neurodivergent perspectives, which I will now briefly introduce.

Autism advocacy movements roughly began in the 1990s. One of the spaces where this happened is Autism Network International, 'an autistic-run self-help and advocacy organization for autistic people'[25] led by Jim Sinclair, Kathy Grant, and Donna Williams. These early developments in autism advocacy were often rooted in perspectives and practices developed within disabled communities and the disability rights movement in the United States of America, often as early as the 1960s. In this regard, autism has also been conceptualised in theoretical and sociological terms as a disability.

Within the academic field of disability studies, one broadly distinguishes between the medical and social models of disability. According to the medical model, disability can be characterised by a set of individual deficits within the disabled bodymind. This individualist lens implies that the origin and cause of the disability is to be found in the individual's biology or psychology. Because of this organic aetiology, the disabled individual is deemed responsible for getting their pathology treated or cured via medical interventions. On the contrary, in the social model, disability is characterised by a process of *disablement*, located at the interface

---

Research', *Autism*, vol. 0, no. 0 (2025); Erin Manning, *For a Pragmatics of the Useless*, Durham and London: Duke University Press, 2020.

[22] See Lydia X. Z. Brown, E. Ashkenazy, and Morénike Giwa Onaiwu, *All the Weight of Our Dreams: On Living Racialized Autism*, Lincoln: DragonBee Press, 2017; Kala Allen Omeiza, *Autistic and Black: Our Experiences of Growth, Progress and Empowerment*, London and Philadelphia: Jessica Kingsley Publishers, 2024; Anand Prahlad, *The Secret Life of a Black Aspie: A Memoir*, Fairbanks: University of Alaska Press, 2017.

[23] The primary example is Robert Chapman's *Empire of Normality: Neurodiversity and Capitalism*, London and Las Vegas: Pluto Press, 2023.

[24] See, for example, Nathaniel Flakin, 'Autism and Anticapitalism', *Left Voice*, 3 April 2019, accessed 1 February 2026. https://www.leftvoice.org/autism-and-anticapitalism/; Jaime Hoerricks, 'There's Got to Be a Better Way: An Autistic Critique of Capitalism', *The AutSide*, 19 April 2024, accessed 1 February 2026. https://autside.substack.com/p/theres-got-to-be-a-better-way-an.

[25] See Autism Network International, homepage, n.d., accessed 26 January 2026. https://www.autismnetworkinternational.org.

between the disabled bodymind and its social and material milieu.[26] With this social lens, the origin and cause of the disability is understood to stem from the mismatch between the organism's abilities and impairments (its biological and psychological features) and the expectations or demands of society. It is argued that society is ableist when it presumes ability as a universal norm and fails to provide the necessary accommodations that would make full participation of individuals with impairments (for example, d/Deaf[27] and blind people, people with reduced mobility, chronic pain, etc.) possible in all spheres of society. By failing to accommodate all sorts of bodyminds, it is thus society that creates disability. Because of this social genesis of disability, society is also deemed responsible for providing the material and social conditions for the full inclusion of disabled people.

However, the social model of disability has also raised unique challenges. Its historical emphasis on the social over the biological is often seen as a limitation. Indeed, the social model tends to reproduce the potential shortcomings of post-structuralist and social constructivist accounts of embodiment, which have been accused of overemphasising the discursive and social construction of biology or psychology, thereby sometimes backgrounding the agency of matter and the lived experience of the subject. With the new materialist turn in posthumanist philosophy in the early twenty-first century, social constructivist perspectives have been complemented by new ways of engaging with the life sciences. This has given rise to new approaches which, building on the social model of disability, bring renewed attention to materiality and lived experience. Examples include the social relational model developed by Carol Thomas and the biocultural model advanced by Lennard Davis.[28]

Autistic self-advocacy is also historically tied to the neurodiversity movement, which developed in online spaces in the mid-1990s, particularly on the Independent Living (InLv) listservs, which stem from the eponymous disability movement. These communities developed the concept of neurodiversity collectively[29] to refer to 'the diversity of human minds, the infinite variation in neurocognitive functioning within our species', as Nick Walker defines it.[30] This concept was founded upon two rhetorical and theoretical foundations, which are explored

[26] See Mike Oliver, 'The Politics of Disablement', *Disability, Handicap & Society*, vol. 5, no. 3 (1990), pp. 187–200; Tom Shakespeare, 'The Social Model of Disability', in *Disability Studies Reader*, ed. Lennard J. Davis, pp. 209–18, New York: Routledge, 2006.

[27] Following disabled activism, particularly in the United States of America, deafness is now often considered as a culture in its own right. In this way, it is common to write 'd/Deaf', where the small "d" refers to the audiological condition and the capital "D" refers to the culture.

[28] See Carol Thomas, 'Rescuing a Social Relational Understanding of Disability', *Scandinavian Journal of Disability Research*, vol. 6, no. 1 (2004), pp. 22–36; Lennard J. Davis, *The End of Normal: Identity in a Biocultural Era*, Ann Arbor, The University of Michigan Press, 2013.

[29] On the collective origin of 'neurodiversity', see Monique Botha et al., 'The Neurodiversity Concept Was Developed Collectively: An Overdue Correction on the Origins of Neurodiversity Theory', *Autism*, vol. 28, no. 6 (2024), pp. 1591–4.

[30] Nick Walker, *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, Fort Worth: Autonomous Press, 2021, p. 34.

respectively in Chapters 4 and 5: echoing the biodiversity concept,[31] the movement pleads for the preservation of neurological diversity in the human species; in echo with 'the major civil rights and pride movements of the twentieth century'[32] relative to (among others) cultural and sexual diversity, it often celebrates neurological diversity as a social phenomenon. This has resulted, for thinkers like Ralph Savarese and Nick Walker, in a political philosophy of neurocosmopolitanism.[33]

According to neurodiversity proponents, autism should no longer be understood as a pathological condition or mental disorder, but as a natural neurocognitive variant among many others within the human species. While being a statistical minority and a politically minoritised form of life, autism should thus escape the coordinates of medicalisation and, particularly, pathologisation. In the year 2000, the autistic advocate Kassiane Asasumasu coined the terms 'neurodivergence' and 'neurodivergent', the latter referring to 'anyone whose neuro-cognitive function diverges from dominant cultural norms'.[34] The concept encompasses various innate functioning modes, such as autism, the misnamed Attention Deficit Hyperactivity Disorder (ADHD), epilepsy, learning disabilities (dyslexia, dyspraxia, dysorthography, dysgraphia, and dyscalculia), Tourette syndrome, and Down syndrome, but also acquired modifications in neurocognitive functioning related to trauma, long-term meditation practices, or repeated consumption of hallucinogens.[35] The inclusion of other conditions that are conventionally defined as 'psychiatric disorders', such as anxiety, depression, personality disorders (bipolar, borderline, antisocial, etc.), obsessive-compulsive disorder (OCD), remains debated within the neurodiversity movement and neurodiversity studies. While for some, this inclusion should be self-evident and automatic, for others, these psychological conditions may rather belong with Mad activism[36] and the regime of 'mental disorders'.[37]

---

[31] Harvey Blume, 'Neurodiversity: On the Neurological Underpinnings of Geekdom', *The Atlantic*, 30 September 1998, accessed 12 April 2025. https://www.theatlantic.com/magazine/archive/1998/09/neurodiversity/305909/; Judy Singer, 'Judy Singer's Official Definition of Neurodiversity', n.d., accessed 24 March 2024. https://neurodiversity2.blogspot.com/p/what.html.

[32] Chapman, *Empire of Normality*, p. 130.

[33] On this notion, see Ralph Savarese, 'From Neurodiversity to Neurocosmopolitanism: Beyond Mere Acceptance and Inclusion', in *Ethics and Neurodiversity*, ed. C. D. Herrera and Alexandra Perry, pp. 191–205, Newcastle upon Tyne: Cambridge Scholars Press, 2013; Nick Walker, 'Reflections on Neurocosmopolitanism', in *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, Fort Worth: Autonomous Press, 2021, pp. 72–9.

[34] Kassiane Asasumasu [Neurodivergent K of Radical Neurodivergence Speaking], 'PSA from the Actual Coiner of "Neurodivergent"', Lost in my Mind TARDIS, Tumblr, 2015, accessed 24 March 2024. https://sherlocksflataffect.tumblr.com/post/121295972384/psa-from-the-actual-coiner-of-neurodivergent.

[35] The last two examples are borrowed from Walker, *Neuroqueer Heresies*, pp. 69–71.

[36] My use of 'mad' follows from the political reclaiming of the term by psychiatry survivors in the early 2000s, which has given rise to the field of 'Mad studies', the movement for 'Mad pride', etc. Like 'queer', 'Mad' is the product of a reversal of stigma and is therefore capitalised.

[37] On these discussions, see Robert Chapman, 'Neurodiversity, Disability, Wellbeing', in *Neurodiversity Studies: A New Critical Paradigm*, ed. Hanna Bertilsdotter Rosqvist, Nick Chown, and Anna Stenning, pp. 57–72, London and New York: Routledge, 2020; Robert Chapman, 'Defining Neurodiversity for Research and Practice', in

In the 2010s, the field of neurodiversity studies emerged in the academy, primarily in relation to psychology. First led by autistic scholars, neurodiversity studies quickly became autonomous from disability studies. As Nick Walker has proposed in *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, neurodiversity is not reducible to disability since some forms of neurodivergence are not inherently impairing and are not met with social processes of disablement. However, this remains true for most, and what some have started referring to as 'neurodivergent disability'[38] encompasses most known forms of neurodivergence.

According to Walker, neurodiversity studies and the neurodiversity movement rely on a paradigm shift from the pathology paradigm – recently renamed 'neuronormative paradigm'[39] – and the neurodiversity paradigm. The neurodiversity paradigm, according to Walker, encompasses three main principles: (1) the idea that '[n]eurodiversity […] is a natural, healthy, and valuable form of human diversity', (2) the idea that 'there is no "normal" or "right" style of human mind', and (3) the idea that 'the social dynamics that manifest in regard to neurodiversity are similar to the social dynamics that manifest in regard to other forms of human diversity (e.g., diversity of race, culture, gender, or sexual orientation'.[40] Conversely, the pathology paradigm refers to (1) the idea that 'there is one "right," "normal," or "healthy" way for human brains and human minds to be configured and to function', and (2) the idea that 'if your neurological configuration and functioning […] diverge substantially from the dominant standard of "normal," then there is Something Wrong With You.'[41]

In recent years, the growing institutionalisation of neurodiversity studies in the academy has led to the development of new approaches within the field itself, focusing on 'the arts, humanities, and critical social theory'.[42] The field of study is thus unfolding in a variety of disciplinary contexts, such as the philosophy of psychiatry, moral and political philosophy, sociology, and history. The thematic 'studies' are not left out, with neurodiversity studies perspectives being developed within the medical humanities, gender studies and feminist theory, Black and decolonial studies, literary studies, cultural studies, (neuro)queer studies, (neuro)trans studies, as well as more-than-human, posthumanist, and (critical) animal studies.

Neurodiversity Studies: A New Critical Paradigm, ed. Hanna Bertilsdotter Rosqvist, Nick Chown, and Anna Stenning, pp. 218–20, London and New York: Routledge, 2020.

[38] See, for example, Robert Chapman in Awais Aftab, 'Neurodiversity and the Social Ecology of Disability', *Psychiatric Times*, vol. 39, no. 5 (2022). https://www.psychiatrictimes.com/view/neurodiversity-and-the-social-ecology-of-disability.

[39] Helen Edgar, 'The Neuronormative Paradigm', *Autistic Realms*, published 11 November 2025, accessed 15 November 2025. https://autisticrealms.com/the-neuronormative-paradigm-naming-the-systems-that-harm/.

[40] Walker, *Neuroqueer Heresies*, p. 19.

[41] *Ibid*., p. 18. Capital letters by Walker.

[42] ND Hums, 'Call for Abstracts: Critical Neurodiversity Studies, 24–26 June 2025, Durham, UK', *The Neurodivergent Humanities Network*, n.d., accessed 26 January 2026. https://ndhumanities.com/2024/12/17/call-for-abstracts-critical-neurodiversity-studies-24-26-june-2025-durham-uk/.

Subfields of neurodiversity studies are also emerging around critical autism studies and critical ADHD studies.

In June 2025, a conference on critical neurodiversity studies was held at Durham University in the United Kingdom. This event aimed to establish a 'critical turn' in the field of study. Perhaps for the first time, the idea that a 'first wave of neurodiversity studies' has passed appeared in the call for papers.[43] Some clear limitations of earlier work in the field were highlighted, such as the near-monopoly of work on autism (compared to research on other forms of neurodivergence), the whiteness and ethnocentrism of mainstream neurodiversity perspectives, and the development of a 'neurodiversity lite' paradigm, namely, a lighter, depoliticised, and individualised version of the movement (more in Chapter 2; see also glossary).[44] Although the call for contributions did not explicitly mention a second wave and merely called for a 'critical turn', it is increasingly clear that such a shift is ongoing. With the proliferation of subfields and turns, neurodiversity studies no longer contents itself with responding to attacks from psychiatry or developing a unified neurodiversity paradigm but deploys a diversity of approaches and frameworks that respond to different geographical, disciplinary, theoretical and political contexts.

Beyond disability studies and neurodiversity studies, autism has often been addressed from the perspective of critical autism studies, a scholarly field that is related to both disability and neurodiversity studies. Nonetheless, some autistic scholars have argued that, in order to properly address and resist the dominant representations of autism in scientific, cultural, and political spheres, an autism-specific field of research is needed.[45] Such representations are indeed historically and politically loaded, complex, and ever-changing: even though autism research should open itself to coalitional thinking and practice with other neurodivergent and Mad communities,[46] the project of a reversal of power relations concerning autistiphobic violence and oppression may warrant autistic-led and autism-specific investigations.[47] Critical autism studies has thus been developing in close conversation with both disability and neurodiversity studies, but also sometimes in contrast or opposition to them.[48]

---

[43] *Ibid*.
[44] On neurodiversity lite, see Shain M. Neumeier, '"To Siri with Love" and the Problem with Neurodiversity Lite', *Rewire News Group*, 9 February 2018, accessed 26 January 2026. https://rewirenewsgroup.com/2018/02/09/siri-love-problem-neurodiversity-lite/.
[45] See, for example, Sonya Freeman Loftis, 'Critical Autism Studies: The State of the Field', *Ought: The Journal of Autistic Culture*, vol. 5, no. 1 (2023), pp. 10–17.
[46] See Nathan V. Mallipeddi and Rachel A. VanDaalen, 'Intersectionality Within Critical Autism Studies: A Narrative Review', *Autism in Adulthood*, vol. 4, no. 4 (2022), pp. 281–9.
[47] See, for example, Richard Woods et al., 'Redefining Critical Autism Studies: A More Inclusive Interpretation', *Disability & Society*, vol. 33, no. 6 (2018), pp. 974–9.
[48] For examples of key work in critical autism studies, see Joyce Davidson and Michael Orsini, *Worlds of Autism: Across the Spectrum of Neurological Difference*, Minneapolis and London: University of Minnesota Press, 2013; Damian Milton and Sara Ryan, *The Routledge International Handbook of Critical Autism Studies*, New York and London: Routledge, 2024.

Throughout this thesis, I mobilise (critical) disability, autism, and neurodiversity studies lenses and frameworks alternatively. The theoretical frameworks and methodologies deployed in Parts I and II correspond, respectively, to dis/ability studies and critical neurodiversity studies approaches (with elements of critical autism studies), whose specific natures and contributions are outlined in their respective introductions. The choice to mobilise both disability studies and neurodiversity studies, though mostly separately, stems from a desire to emphasise distinct theoretical and political gestures and horizons. These two frameworks also correspond to two different moments in the thesis's argument: the former examines the cultural, scientific, and political construction of various figures of disability in Western modernity (e.g. disorder, disharmony, disease, etc.); the latter explores the histories, evolutions, and potential horizons of neurodiversity theorizing and activism. As will become clear below, these two moments engage with discussions of autism and animality in different ways.

Although this study mobilises both perspectives, I wish to position its main contributions at the level of neurodiversity. This is due to the specific nature and history of autism, which has historically come to embody and represent the neurodiversity movement. This is also because much work remains to be done to understand the unique contributions of neurodiversity studies to thinking about (autism and) animality. Moreover, the perspectives discussed in Part II, which centre on autism, are also relevant to other forms of neurodivergence and are sometimes approached through the broader lens of neurodiversity itself.

In this regard, my decision to centre on autism specifically, rather than other forms of neurodivergence, stems from my own belonging to this community, but I do hope that the proposals developed in this thesis can serve the larger purpose of neurodivergent and disabled theorising and political organising. However, it is important to mention that autistic positions present significant singularities, as evidenced by the development of critical autism studies. This observation also applies to discussions of animality since autistic individuals and autistic culture present unique forms of affinity and relationality with nonhuman animals that have not been as prominent in other forms of disability and neurodivergence. Therefore, it should not be assumed that autism could implicitly speak for, or represent, the entire diversity of neurodivergent communities and perspectives. Despite its claim to generality, my contribution thus remains deeply situated and bounded by its emphasis on autism.

ANIMALITY: BETWEEN CRITICAL ANIMAL STUDIES, ANIMALITY STUDIES, AND POSTHUMANISM

Animality is the second key term in this thesis. Why 'animality' and not 'animals'? Why not 'animalism'? As we have seen already, animality broadly refers to the condition of being an animal, a condition that blends biological constitution with social representations and political regulation. The observation that humans are animals but often refuse to think of themselves as such says a lot about the socio-political construction of animality in the West. Animality should not, in this regard, be approached in the same way that one speaks of 'humanity' to refer to the entire population that constitutes humankind. It does not refer to the entire population of human and nonhuman animals (or at least not directly), but to the condition of being (and being perceived as) an animal in a given context.

Of course, animality has been perceived and treated differently in different historical and geographical contexts. The socio-historical context that occupies me in this thesis is, broadly speaking, Western modernity-coloniality. We will see that animality has been instrumental to the establishment and maintenance of humanism, particularly through its repression. In this regard, it is useful to introduce the various theoretical frameworks that fuel this thesis's understanding of animality. The scholarly discussions surrounding 'the question of the animal', as Jacques Derrida calls it, have been taking place within an increasingly diverse range of research settings and from a wide array of theoretico-political perspectives. These diverse approaches are commonly gathered under the overarching umbrella term 'animal studies'. However, as Michael Lundblad has aptly remarked, the notion of animal studies 'has come to include such a wide range of work that can often be at odds with (if not explicitly opposed to) each other'; he proposes 'dropping the use of "animal studies."'[49] It would therefore be too simplistic and imprecise to note that this thesis contributes to animal studies, as this would say very little about its content and the theoretical and political orientations it proposes. What alternative framings might be appropriate to describe my endeavour?

To answer this, it is helpful to turn to a typology that Lundblad has introduced to account for the various perspectives which engage with the animal question. In a table that distinguishes three separate perspectives, Lundblad classifies, from left to right, human-animal studies, animality studies, and posthumanism.[50] The first perspective, human-animal studies, takes as its primary focus the '[i]nteractions, co-constructions, and material relationships between

[49] Michael Lundblad, 'Introduction: The End of the Animal – Literary and Cultural Animalities' in *Animalities: Literary and Cultural Studies Beyond the Human*, ed. Michael Lundblad, Edinburgh: Edinburgh University Press, 2017, p. 1.
[50] *Ibid*., p. 3.

human and nonhuman animals or constructions of animals as animals'.[51] It encompasses a variety of subfields, among which are humanimal studies and critical animal studies. In the collective imaginary, the latter refers to a more intersectional and politicised form of animal studies, where the 'critical' part signals a political orientation described in vegan and abolitionist terms, and/or a theoretical orientation described through critical theory. Lundblad's own articulation of animality studies, then, focuses primarily on the '[c]onstructions of humans as animals or discourses of animality in relation to human cultural politics'.[52] The field of posthumanism, finally, foregrounds discussions of '[t]he knowing "human" subject of humanism, including the human/animal binary in philosophical terms'.[53] As Lundblad rightly notes, however, posthumanist research is not always focused on matters of animality; in some cases, ecological and technological matters take centre stage and may background animality.

Throughout this thesis, I occupy these three positions alternatively, sometimes simultaneously. A critical animal studies perspective is evident in the theoretical and political grammar of antispeciesism. This study engages with the co-construction of speciesism and ableism/neuronormativity, two axes of power which are described as entangled forms of oppression. It also addresses the relationship between autistic humans and nonhuman animals and establishes a typology of autistic positions on matters of veganism and antispeciesism. In this way, a resolute abolitionist horizon is sustained throughout the chapters.

At the other end of the spectrum, posthumanism serves as the starting and end point of this doctoral project (more on this in the general conclusion). It constitutes the backdrop for the theoretical framework and methodology developed in Part I, in the form of an engagement with critical posthumanism. It also serves a central role in Part II, where the dehumanisation of autistic humans is addressed through a deconstruction of the anthropocentric and neuronormative figure of the typical human. In addition, some of the philosophical ethologies that inspire this thesis are associated with posthumanism, even when focusing explicitly on animality. The centrality of posthumanism to my approach also lies in the argument that humanism forms the ground for both intrahuman oppression and anti-animal speciesism and that, for this reason, critical animal studies and antispeciesism must open themselves up to posthumanist perspectives, and vice versa.

In between critical animal studies and posthumanism, animality studies occupies the nodal point of my argument. This perspective is developed through a critique of species, understood not so much as an identity position to be assumed, but first and foremost as a rhetorical and material apparatus of biopower to be interrogated. The critique of species

[51] *Ibid*.
[52] *Ibid*.
[53] *Ibid*.

specificity and species typicality elaborated in Chapter 4 might not, in this regard, be directly assimilated to an antispeciesist perspective, but only indirectly so: it is not so much the concept of species that is traditionally contested in antispeciesist philosophy, but rather its weaponisation as a moral justification of unjust and violent treatment. My reading of species critique as a form of antispeciesism is therefore mediated by an animality studies framework. It is through this logic that I am led, in parts of this thesis, to reframe the concept of speciesism, which traditionally refers to the discriminatory treatment of nonhuman animals, as 'anti-animal speciesism'. Such a gesture allows me to signal the dual participation of a 'discourse of species' – a concept introduced by Cary Wolfe, which I examine in Chapter 4 – to intrahuman *and* nonhuman forms of oppression alike. This may, however, come at the cost of a simplification, for 'anti-animal' may inadvertently suggest a dualistic opposition between the human and the animal.

In addition, animality studies is also connected to posthumanism in this study through philosophical ethology, a perspective that proposes to examine the nature and ontology of animality. Traditionally, it is first and foremost the animality of nonhuman animals that is emphasised by philosophical ethologists, even though such a framework is inevitably bound to reflect on the animality of human animals. Nonetheless, my own understanding of philosophical ethology may at times depart from a strictly posthumanist framework, particularly through the ontological implications suggested by its epistemological framework, such as the unshakeable distinction between animal, vegetal, and nonliving realms that follows from its commitment to (animal) phenomenology.

How should we understand the relationship between the three analytical apparatuses at work in this thesis in relation to animality? Far from a relationship of juxtaposition, critical animal studies, animality studies, and posthumanism operate hand in hand, even though they may at times be tempted to part ways. There are indeed deep sources of tension between these frameworks. This is evidenced by Lundblad's description of these fields, particularly his distinction between critical animal studies and animality studies. In an earlier piece, Lundblad introduces the notion of 'animality studies' 'as a way to describe work that expresses no explicit interest in advocacy for various nonhuman animals, even though it shares an interest in how we think about "real" animals. Animality studies can prioritize questions of human politics, for example, in relation to how we have thought about human and nonhuman animality at various historical and cultural moments'.[54] Animality studies, in this regard, emphasises the social construction and weaponisation of human animality in the form of dehumanisation, and particularly animalisation. This clearly separates animality studies from critical animal studies,

[54] Michael Lundblad 'From Animal to Animality Studies', *PMLA/Publications of the Modern Language Association of America*, vol. 124, no. 2 (2009), p. 497.

the latter being explicitly focused on the politics of anti-animal speciesism. The consequences are clear according to Lundblad: 'Animality studies might thus be seen as speciesist, but [critical] animal studies, conversely, runs the risk of ahistorical, universalist prescriptions about how to treat or interact with non-human animals.'[55]

It seems to me that the potential speciesism Lundblad describes is not unique to animality studies but further extends to posthumanism, which has similarly failed to provide profound and satisfying answers to the question of animal oppression. In this regard, it is notably the prospect of a Derridean-inspired deconstructionist posthumanism that is simultaneously the object of my interest and my criticism here, and which similarly inspires Lundblad's reflection on animality. Lundblad's critique of ahistoricity and universalism in critical animal studies stems from the latter's tendency to seek universal moral guidelines on how to navigate human-animal relationships, and to support the perspective of universal rights for nonhuman animals. In so doing, it tends to engage in what we might call a humanist political grammar. Inspired by posthumanism – again, particularly a Derridean form of posthumanism – Lundblad's animality studies remains wary of political enterprises that tend to reinforce potentially problematic ideas rooted in the humanist tradition.

These tensions between critical animal studies, on the one hand, and animality studies and posthumanism, on the other, are central to my examination of autism and animality because they relate to the encounter between an (up to now) intrahuman political struggle for and by autistic humans and a political struggle for nonhuman animals that has tended to put 'animals first'. In a context where animality studies remains a marginal field, this opposition has been so far particularly pronounced between critical animal studies and posthumanism, but it is helpful to map how this tension is reconfigured in animality studies.

Lundblad's development of animality studies is critical of species categories. It argues that species should probably not become 'the next identity category – added to race, class, gender, sexuality, disability, and so on – and linked to "speciesism" as its primary object of study'.[56] His concern with such a framework is that species may become 'simply analogous to other human identity categories or, to the contrary, more fundamental than all of them'.[57] While my endeavour in this thesis meets Lundblad's in the critique of a concept of species that 'reeks of race and sex', as Donna Haraway proposes,[58] it may at times depart from such a framing of animality studies by embracing, perhaps more affirmatively, an analytical concept of

[55] *Ibid*., p. 500.
[56] Lundblad, 'The End of the Animal', p. 9.
[57] *Ibid*., p. 10.
[58] Donna Haraway, 'Species Matters, Humane Advocacy: In the Promising Grip of Earthly Oxymorons', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Marianne DeKoven and Michael Lundblad, p. 20.

speciesism positioned alongside – and articulated with – those of racism, sexism, ableism, and neuronormativity.

However, this does not mean that I engage in an identitarian framing of antispeciesism as the political movement of and for individuals belonging to well-defined species. On the contrary, the queerfeminist and intersectional orientations sustained in this study suggest a concept of species as a social construction that functions *together with* race, gender, class, etc., rather than *similar to* them. As I will demonstrate throughout the chapters, discourses that present various axes of power as simply analogical to each other tend to miss their deeper co-construction. In this regard, we may follow Lundblad and others in recoiling at the idea that speciesism functions 'just like' racism, sexism, or ableism, for speciesism's potential to oppress animals (whether human or nonhuman) is often determined by the direct participation of racism, sexism, and ableism, and *vice versa*.

The horizon sustained by this study thus takes the form of a connection between critical animal studies and posthumanism through animality studies; namely, an attempt at weaving antispeciesism and the deconstruction of humanism together through animality: what would an antispeciesist posthumanism look like in conjunction with a less universalist critical animal studies? The rethinking and reclaiming of animality (through autism) in this thesis allow us to envision a more nuanced antispeciesism and a more political posthumanism.

In this regard, the visual presentation Lundblad chooses for his typology is far from anecdotal. On the contrary, it reflects Lundblad's proposal of 'situating [animality studies] between human-animal studies and posthumanism'[59] in theoretical and political terms. In this way, my emphasis on animality in this thesis's title, far from signalling a primary or unique commitment to animality studies, corresponds to a cross-disciplinary strategy – an attempt at bridging critical animal studies and posthumanism through animality studies. Such a strategy is also reflected in the potentially heavy phrase 'antispeciesist-posthumanist', which is positioned at the core of my title, and which reappears centrally in Chapter 4. This proposal, albeit not the most accessible or intuitive, remains nonetheless productive for me: by bringing together two frameworks or paradigms that have often been pitted against each other, I seek to explore how this opposition could deconstruct itself if we gave it a chance.

In other words, when speaking of an antispeciesist-posthumanist philosophy in this thesis's title, my aim with the hyphenation is not so much to suggest that such a junction is self-evident, but rather to explore this connection, with its tensions, challenges, and emancipatory potentials. Furthermore, when deciding which pole to position first, antispeciesism or posthumanism, the visual presentation of Lundblad's typology is only one potential factor. It is

[59] Lundblad, 'The End of the Animal', p. 9.

not only that antispeciesism – particularly through a critical animal studies approach – is positioned left of posthumanism in Lundblad's table, but this formulation also signals a primacy of the political over the philosophical: I would rather risk universal prescriptions than commit speciesist assumptions.

Core Arguments

The examination of autism and animality in this thesis results in a few core arguments. First, the intersection between autism and animality is a key site of the political co-construction of neuronormativity and speciesism. This co-construction is the product of humanism, an ideological structure located at the foundation of various systems of power in Western modernity-coloniality. This means that the neuronormative discourses and politics through which autistic people are dehumanised and animalised are entangled with the speciesist discourses and politics through which nonhuman animals are opposed to the figure of the typical human.

This argument is introduced in different ways throughout the thesis. In Part I, I introduce the concept of dishuman modernity to analyse how modern and post/humanist understandings of humanity and animality have been directly entangled with representations of (autistic) disability, often through their repression.[60] In Part II, through the examination of apparatuses of bestialisation and technologies of speciation, and through the concept of ethonormativity, I will demonstrate that ableism and neuronormativity, on the one hand, and speciesism, on the other, rely on entangled logics and ideals.

However, I will follow Cary Wolfe in noting that many social justice movements have failed to address the role that humanism (and its derivations, anthropocentrism and speciesism) has played in establishing and maintaining various systems of oppression: 'debates in the humanities and social sciences between well-intentioned critics of racism, (hetero)sexism, classism, and all other isms that are the stock-in-trade of cultural studies almost always remain locked within an unexamined framework of *speciesism*.'[61] This observation correlates with a second key argument developed throughout this thesis: namely, that humanism was always (and continues to be) correlated with inhumanism and/or dehumanisation.

This can be seen in processes of partial humanisation, which rely on the dehumanisation and animalisation of marginalised communities. Each time a minoritised (e.g. feminised,

[60] The notion of post/humanism is discussed in the introduction to Part I and in the glossary.
[61] Cary Wolfe, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory*, Chicago: University of Chicago Press, 2003, p. 1.

racialised, disabled, or otherwise marginalised) human group successfully humanises itself, this tends to be conditioned on the dehumanisation or animalisation of other groups and on the (possibly more fundamental) repression of nonhuman animals. This is evidenced by assimilationist politics, such as homonationalism, femonationalism, vegan nationalism, or anti-queer and anti-trans stances in contemporary lesbian, gay, and bi movements. When it comes to autism, 'Aspie supremacy' and 'neurodiversity lite' constitute examples of assimilationist politics whereby privileged autistic people might attempt to stand out from the crowd of more marginalised autistic, neurodivergent, and Mad populations. They are explored in Chapters 1 and 2 respectively.

These phenomena of humanisation through dehumanisation are increasingly common in times of neoliberal governmentality, where identity politics and 'progressive' movements are captured and assimilated into the hegemonic social order. However, the humanisation of whiteness, masculinity, or the bourgeois ethos in early modernity already relied on the abjection of Blackness, Indigeneity, femininity, sexuality, childhood, or animality. For example, the development of humanitarian and reformist movements for animal welfare – such as the 'humane movement' in the United States of America or the 'zoophilic' movements in France (see Chapter 4) – has humanised the white bourgeois animal enthusiasts while (or rather, through) dehumanising racialised and/or impoverished human groups. This has also made nonhuman animals rhetorically and materially exploitable under techno-industrial capitalism, particularly through the idea that the complexities of humane exploitation or humane slaughter are opposed to the alleged barbarity of traditional (e.g. non-Western or peasant) forms of animal exploitation and slaughter.

Humanisation, more than a fundamentally desirable political end or a step towards total liberation, is part of a process of appropriation and exclusion of difference.[62] It is through this logic that animality becomes what I call a 'constitutive other', namely an abjected form of difference that is nonetheless necessary for hegemonic practices of humanisation to unfurl. In other words, both the concept of animality and flesh-and-blood animals have served a decisive role in the establishment and maintenance of a range of human concepts (such as humanity, autism, neurodiversity, etc.) and social positions of power (namely, bourgeoisie, whiteness, masculinity, able-bodiedness, sanity, etc.) while being systematically excluded from them. This is particularly evident in Part I, where I expose the 'dishuman' and 'disanimal' construction of modern concepts of autism, disability, humanity, and animality. In this regard, the dialectic of

[62] See Paola Cavalieri, 'Consequences of Humanism, or, Advocating What?', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Marianne DeKoven and Michael Lundblad, pp. 49–73, New York: Columbia University Press, 2012.

humanisation through animalisation constitutes an instrument in a humanist teleology of progress that is all but innocent.

In Part II, I demonstrate that this is true of neurodiversity studies (and the neurodiversity movement), which have, for the most part, deliberately chosen to exclude nonhuman animals. I will insist, however, that the concept of neurodiversity might be a site of antispeciesist-posthumanist critique, even though this critical charge has not been explicitly claimed before. To do so, it will be necessary to draw on intersectional feminist theories, which have paid distinct attention to the co-construction of various systems of power and the intersectional distribution of harm and privilege. In this regard, transfeminist, queer, antiracist, decolonial, crip, neurodivergent, antispeciesist perspectives are brought together productively throughout the thesis.

From these first two arguments – (1) the co-construction of speciesism and neuronormativity and (2) the dialectic of humanisation and dehumanisation – follows a third argument: humanism might not be the desirable political horizon it is often portrayed to be, but part of the problem. It may, at best, constitute a useful political strategy in the short run, but this often relies on excluding further marginalised communities from obtaining rights or recognition. This observation sets the ground for more intersectional and coalitional politics, where the liberation of each marginalised group is tied to that of all others. Throughout the thesis, I thus explore ways in which the discourse and politics of autism and neurodiversity may risk reproducing harmful forms of humanist and speciesist logics, but also ways in which they might be reconfigured to better support an agenda of total liberation.

Reflections on Philosophical Discipline and Methods

This doctoral thesis proposes to introduce an antispeciesist-posthumanist philosophy of neurodiversity. How should 'philosophy' be understood in this proposal? While this might be somewhat of a platitude, perhaps it is useful to return to the etymology of 'philosophy', which in Ancient Greek referred to the 'love of wisdom'. And who better to represent wisdom than the human, *Homo sapiens*, literally the 'wise man'? If it is true that wisdom is a typically human, or rather humanist, feature, then the proposal of a posthumanist philosophy may appear paradoxical in more than one way.

In Jacques Derrida's Seminar, *The Beast and the Sovereign*, which I examine in Chapter 4, the French philosopher offers reflexive commentaries on philosophical practice. He notes that, by their desire to judge or conclude, for example on matters of human and animal nature,

humans perform a typically humanist gesture that makes them more stupid [*bête*] than the animals [*les bêtes*] themselves. Derrida includes philosophers alongside other human subjects, such as the tyrant, in his critique. Philosophy, then, might constitute a prime example of humanist practice.

However, Derrida's thinking exemplifies the potentials of a posthumanist philosophy, if not also the perspective of posthumanism *as* philosophy, namely, a practice in which philosophy is instrumental to the overthrowing of humanism. Derrida has indeed inspired many posthumanist philosophers, such as Donna Haraway and, more explicitly, Cary Wolfe.[63] Their thinking can be characterised, in part, by a refusal of ontological-epistemological binaries and of universal arbitrations in matters of ethics and politics. These philosophers have developed posthumanist philosophies that may at times conflict with the humanist grammar of everyday life, including in political movements such as animal rights activism or disability advocacy.

One way of working through this friction that is examined in this thesis is strategic humanism, a practice that consists of mobilising conceptual tools rooted in humanist thinking to resist the political logics of humanism. However, as Michael Lundblad notes in a discussion of Cary Wolfe's work, strategic humanism does not produce the same effects, nor does it follow the same logic, in the different contexts in which it is mobilised. Indeed, while it may be legitimate, even strategic, for disabled or antispeciesist activists to employ humanist frameworks when speaking to their local newspaper, this tactic might not be entirely satisfying in academic scholarship, particularly in philosophy.[64] Wolfe, who bases his argument on a reading of Derrida, suggests that philosophy (and the humanities at large) have a responsibility to resist logics rooted in the liberal humanist tradition. The latter, in his and Derrida's views, should be reserved to political activism outside the university: 'In the former instance, my experience suggests, the discourse of universal rights, drawn from the liberal justice tradition in philosophy and from a very historically specific set of philosophical, political, and legal coordinates, isn't just handy but is in many ways as indispensable as it is unavoidable'.[65]

My relationship to philosophy, both in life and in this thesis, might in part be encapsulated by the discussion of such a posthumanist philosophy of Derridean orientation. At first glance, it might seem that philosophers have a unique responsibility to escape the humanist way of thinking. This appears all the more critical as the academy, and philosophy in particular, are

[63] This comparison is not meant to suggest that Wolfe's work is inherently more philosophical than Haraway's, but rather to emphasise Wolfe's readiness, likely stronger than Haraway's, to describe his practice as philosophical.
[64] This argument was originally made by Cary Wolfe in *What is Posthumanism?* Minneapolis and London: University of Minnesota Press, 2010, p. 124. It is then taken up and discussed by Michael Lundblad in *Disanimality: When Disability, Illness, and Animality Meet*, Oxford: Oxford University Press, forthcoming, Chapter 1, 'Posthumanist Animality', para. 3–4.
[65] Cary Wolfe, 'Humane Advocacy and the Humanities: The Very Idea', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Marianne DeKoven and Michael Lundblad, New York: Columbia University Press, 2012, p. 28.

leading centres of humanist ideology. But in doing so, might philosophers not risk reinforcing the social status and sacralisation of philosophy within and out of the university, rather than resisting and deconstructing them? My relationship to such an approach is, therefore, at once sympathetic and uneasy. As a doctoral candidate trained in philosophy and a philosophy enthusiast, I can appreciate the commitment to transforming a discipline from within. However, as a political subject that embraces a framework of total liberation, I am more critical of the potential harms that come with this gesture. Specifically, I worry that by committing to the (philosophical) deconstruction of the philosophical tradition in this way, we are resisting the hegemonic tendencies of the university while providing tools to hegemonic actors outside the university, in the political field. Moreover, I am concerned that Derrida's commitment to thinking 'as a philosopher',[66] which he views as a unique responsibility – and which he contrasts with disciplines such as sociology and political science[67] – might end up reinforcing a discipline already positioned at the very top of the disciplinary hierarchy within the humanities.

As such, while this doctoral thesis constitutes a work of academic scholarship that cannot be directly understood as political activism, it does, however, stem from a commitment to political matters beyond the university. In this regard, a possible qualification would be to say that it partakes in critical theory, understood since Karl Marx as an instrument for changing the world, rather than merely interpreting it. Another, perhaps less explicitly prestige-conferring description, but just as accurate, would be to position it as a philosophical work that works philosophically to overthrow philosophy (and not only humanism). If becoming a philosophy professor entails, following Derrida, a 'profession of faith'[68] in philosophical thought, even when that means agreeing to an abyssal distance from extra-academic activism, then maybe professorship in philosophy and the philosophical profession, as they currently stand, should be resisted. Similarly, if becoming a philosopher means embracing the sacrality of philosophy as a discipline, albeit only to deconstruct it, then maybe it matters to practise philosophy *without* becoming a philosopher. What would it mean, in a posthumanist logic, to practise philosophy not only within the university, but also without it and from without?

In this regard, this thesis might be seen as a chimeric object, at once philosophical and non-philosophical. On the one hand, I can only hope that it meets the conditions for a doctorate in philosophy, with problematisations, conceptual and analytical work, and rigorous arguments. On the other hand, the performativity of becoming a philosopher remains strongly ambivalent to me. At events of various nature (both academic and non-academic, for example, in activist circles), I have sometimes been told that my writing and speaking style is dense. (This has not

[66] *Ibid*., p. 44, 46.
[67] Derrida, cited in *Ibid*., p. 45.
[68] Derrida, cited in *Ibid*., pp. 38–9.

always been meant as a compliment.) Coupled with a distaste for unpredictability, my fondness for conceptual words and lengthy sentences prompts me to script all of my interventions. Scripting allows me to search for the right words, avoid approximations, and remain understandable. It also prevents me from engaging in fast-paced monologues that sometimes leave both the audience and myself exhausted. I fear it has saved me from many embarrassments. Reading from a script, especially without the support of a slideshow, makes one sound very philosophical in the academy. It also raises matters of accessibility.

What is most interesting to me here is the way the register of philosophical writing stands out in my case from a register of spontaneous speech that might not sound so philosophical. In the cultural regimes of phallogocentrism and phonocentrism, philosophy is perceived as the direct and transparent expression of personal wisdom through speech, in being present both to oneself and to the audience. But in my daily life, I am repeatedly struck by the feeling that I remain inexorably a non-practising philosopher. Perhaps as a result of my neurodivergence, I sometimes struggle with the orality and synchronicity of less structured exchanges. This is the case when I am asked to articulate philosophical thoughts out of the blue, or when I am required to voice an opinion, ask a question, or follow up on what someone has just said, for example when facilitating a seminar. In these moments, I panic, I blush, I stutter. I struggle to find my words. Often, I spit out sentences before I have had time to think. I rush to speak back before having had time to process what was just said or what I might want to reply. Or rather, it is not *me* who speaks; words speak through me. Perhaps all of this only happens on the inside without being very obvious to others, but it is felt very strongly. In these contexts, those who do not know me – and perhaps even those who do – might struggle to believe that I am, supposedly, a philosopher.

Of course, this is exacerbated by ‘imposter syndrome’, and having a roomful (or even a couple) of people waiting for you to speak can indeed be a lot of pressure. Although this has improved significantly with practice, I still find that I am most coherent when I have been able to script my interventions in advance. The words that come to me when I don’t script are not so philosophical either: unless I’m consciously ‘masking’, my spoken speech remains largely informal. There too, it is permeated by parasitic logics: social norms, cultural and professional habits, psychological expectations of judgement or approval. But even in writing, there is no transparent expression of pre-existing wisdom for me, nor are my arguments the result of a linear causality from the self-present intention to the final product on paper. In both cases, ideas unfold in the course of writing/speaking, escaping my will, far beyond my control.

I wonder whether the privilege of spoken speech and the myth of presence are not harmful to autistic people, in philosophy and beyond. To be recognised as a doctor in philosophy, you must indeed defend your thesis in front of a committee, and British people call this event a

'viva', from Latin *viva voce*, meaning 'by word of mouth'. While I am privileged to be a speaking autistic, others are not so fortunate. In Canada, Adam Wolfond was the first nonspeaking autistic person to graduate with a Master of Arts in 2025. Despite my privileges, I can relate to the barriers that make philosophy inaccessible for some. Can you be openly neurodivergent and a philosopher?

To counter these logics, I want to write from a situated perspective, reclaiming the autistic experience of writing and speaking philosophically. Even the most intentional text, written with rationalist will and from a position of imaginary disembodiment, remains parasited by its author's lived experience and unconscious dispositions, and this is no exception. My autistic dispositions might at times conflict with my theoretico-political orientations. I might try to engage in posthumanist philosophy, seeking to deconstruct the metaphysical categories and the moral universalisms of Western humanist modernity, trying to inhabit the depth and complexities of nonbinary life… and here is binary thinking, inspired by autistic orientations and political commitments, making a grand return. What does it mean when philosophy is used to invalidate autistic ways of thinking and speaking? When it is weaponised against autistic resistance to political violence? Throughout this thesis, we will encounter examples in which (philosophical, scientific, political) complexity is mobilised to morally justify harm and tame dissident voices. In concrete terms, this means that the philosophical posthumanism sustained in this thesis – particularly in Part II – may appear to some to coexist with a strategic humanism or, as Cary Wolfe might put it, with a 'humanist posthumanism'.[69] This is not a thesis that lays claim to homogeneity or uniformity, but one that inhabits the tensions and troubles of real life. I hope that this approach can inspire a practice of philosophy outside philosophy, beyond the academy, against the fantasmatic and neurotypical figure of the wise man.

More than a philosophy of neurodiversity, then, it might be worth speaking, to describe this thesis, of a neurodivergent philosophy. Not only a philosophy of autism, but also a philosophy-in-autism, if only such a thing is thinkable. Reflecting the lived experience of many autistic people, the argument developed in this thesis is also fragmented and non-linear. Its coherence emerges from conceptual and ethico-political consistency, iterative meaning-making, and a posteriori synthesis, rather than from a unique framework, systematic methodology, or *a priori* logic. This thesis does not seek to answer a unified problem or question in the way a traditional (neurotypical?) philosophy dissertation would, nor does it follow a predetermined structure with a linear outline, from hypotheses and methodology to results and discussions. Instead, it proposes a sustained engagement with various sites of study and practises meaning-making in the encounter between texts, questions, and frameworks.

[69] Wolfe, *What is Posthumanism?*, p. 124.

The contact zone between autism and animality, as massive as it might be, constitutes the playfield of my study, with no area declared off-limits. The choice of including or excluding given topics and discussions follows the dis/orientations of my own neurodivergence, where engagement with topics and activities is fuelled by energy levels, desire, and interest rather than duty, reason, or method. From Latin '*inter esse*', or 'being in-between', interest refers to the practice of giving oneself over to an object of choice, rather than trying to master, appropriate, or control it. Far from the epistemic ideals of neurotypicality, which demand clarity, linearity, and monoculture, this thesis engages in an epistemology of thematic pluralism and attunement to the object. Rather than an enquiry or an exploration, with their colonial and positivist undertones, this thesis might be described as an interest-filled participation in the various dis/orientations of the subject: this is about tracing genealogies, detecting patterns, emphasising tensions.

This thesis is also written affectively, and while my embodiment and affectivity remain largely silent in these pages, I felt it was important, in this introduction, to give them a more prominent place. As I write these lines, I do not want to hide that I have encountered multiple waves of exhaustion during my doctoral years, or that the repeated strain of free labour in and for the academy has left its mark on my overall wellbeing and my working capacity. My autistic desire to touch on everything that four years of study allowed may have been exhausting, but it brought me nowhere near exhaustivity. The neoliberal academy, of course, knows how to feed off neurodivergent affects of anxiety, willingness, and curiosity.

This emphasis on affects and on the body is directly inherited from feminist epistemologies. My doctoral journey indeed began in gender studies with a philosophy minor, following prior training in both. Gender studies was not a natural choice for a thesis on autism and animality, and yet it was the most obvious choice for me. Gender studies and feminist theory gave me the space to explore (and expand) the realm of possibilities, in a national academic context where neither animal studies nor neurodiversity studies have any institutional existence. More than a subject or topic, feminist theory is a method for thinking and a marginal(ised) social field within the academy. It embodies an ethos of research that is so immediately political that it is sometimes suspected of activism by the hegemonic order. In a way, this (anti)disciplinary context gave me permission to explore (neuro)divergent ways of practising research without which this thesis might not have existed.

With its controversial subject (neurodiversity is far from accepted in France due to the persistence of psychoanalytical approaches to autism), its interdisciplinary scope, and its political implications, this thesis was already atypical for gender studies; it might never have been thinkable (let alone fundable) in a philosophy department. In many ways, even after my return to the fold of philosophy, this thesis remains permeated by gender studies and feminist

theory. Whether by doing philosophy in gender studies or by bringing gender studies into philosophy, I hope to contribute, albeit only marginally, to the urgent task of reclaiming research as a field of political action.

These interdisciplinary (and perhaps, antidisciplinary) perspectives are also reflected in the methodological orientations explored in this thesis, many of which are inspired by queerfeminist theory. For example, breaking from the traditional practice of philosophy as the elaboration of universal concepts, this thesis follows the lineage of posthumanist feminist theorists like Donna Haraway, who taught us to think through partial, situated, and non-innocent knowledges. To this end, I rely on a range of material-semiotic figurations[70] that emerge at the encounter of autism and animality: the animal model of autism, or 'autimouse', the pathologised autistic therian[71] or animal lover, the (neuro/etho)divergent animal, and the bestialised autistic human.[72] Far from constituting an enlightened *avant-garde* or embodying a status of pure victimhood, these figures inhabit the troubled waters of the autism-animality interface while offering a prospective horizon of liberation. In this regard, a recurring figure throughout the thesis is that of non-innocence, which refers to an epistemological practice of self-reflexivity whereby one refuses to believe in narratives of objective truth or moral purity. This Harawayan notion, which I examine in Chapter 4, is a source of critique and deconstruction as much as it traces an orientation for action.

A core dynamic that is encapsulated by the figure of non-innocence is the question of how to address the inherent tensions and dualisms of Western modernity, which may be productively traced back to an opposition between positivity and negativity. Dualisms are constitutive of philosophical and political modernity in the West, with life, norms, and order being opposed to death, chaos, and disorder. Certainly, the positive pole of this dualist thinking might appear more affirmative and desirable, but it would be reductive and harmful to reduce negativity to harm or evil. This thesis inherits and inhabits some core tensions of Western modernity-coloniality in order to rework them and potentially overcome the opposition: (re)working (with) two devalued figures, autism and animality, it asks how reinvesting negativity might, at times, help us reframe and overcome the very coordinates of the dualism.

Both movements (positivity and negativity) are found in the thesis through distinct methodologies and at different scales. Negativity is embodied at the onto-epistemological scale through deconstruction and the emphasis on complexity and ambivalence, and at an ethico-

[70] On the posthumanist philosophical method of figuration, see, for example, Stefan Herbrechter, 'Postfiguration, or, the Desire of the Posthuman', in *(Un)Learning to Be Human? Collected Essays on Critical Posthumanism. Volume 1*, Leiden and Boston: Brill, 2024, pp. 163–207.
[71] Therians are individuals who identify with other-than-human animal species at a profound, sometimes spiritual levels, and may sometimes be involved in practices inspired by these 'theriotypes'. See more in Chapter 6, or see 'Therianthropy' in the glossary.
[72] These figures and concepts are developed throughout the chapters; see glossary.

political level through critique and abolitionism. It leads to the political reclamation of negatively charged concepts, such as disability, disorder, disharmony, dishumanity, disanimality, and more. These movements are primarily (but not exclusively) located in Part I. Positivity is then explored through the subversive reclamation of ability, order, and harmony beyond ableist and neuronormative coordinates, but also of (hum)animality beyond speciesist boundaries. At an onto-epistemological level, it is associated with a reconfiguration of ontology, with concepts like autism and animality being claimed as valuable realities rather than mere targets of oppression or sites of critique. To further clarify this dialectic and the methodological orientations of this thesis, it might be useful to approach them more linearly. The introductions to Parts I and II will provide further explanations of the distinct methodologies deployed in these respective moments and the way they relate to matters of negativity and positivity, critique and affirmation. Without seeking to reduce the complexity of the argument, however, this brief outline can hopefully prepare the reader for the general dis/orientations followed in the pages to come.

Part I of this thesis engages in 'parasitic readings', a reading methodology inspired by Michel Serres's philosophy, which consists of emphasising the movements of appropriation, exclusion, and/or subversive reclamation that take place when thinkers draw on other ideas, figures, or philosophies to develop their own. This phenomenon, which reflects the standard, internal structure of philosophy, remains nonetheless often unrecognised. In this way, the conceptual or political baggage carried by earlier traditions, the shifts and cuts necessary to take them in new directions, are conveniently erased. This not only comes with potential risks, but it also reinforces the humanist figure of the autonomous, self-made philosopher. Worse, this backgrounds the political logics through which given figures or ideas – such as autism and disability – are at once constitutive of, and repressed from, hegemonic conceptions of humanity and animality. Emphasising these parasitic readings – and the ways repressed parasites always return to haunt you – allows us to understand how gestures of constitutive exclusion might deconstruct themselves. Beyond the apparent negativity of critique or deconstruction, such a gesture is also profoundly affirmative: it allows us to (re)claim positions of parasitism. With it, we might not only celebrate minoritised subjectivities, but also hone their deconstructive and subversive potential.

In Part II, I engage in a posthumanist methodology of 'troubling', which attempts to revitalise and radicalise the potentials of Donna Haraway's proposal of 'staying with the trouble'. Understood as a queer practice of denaturalisation and proliferation, the act of troubling consists of bringing together various perspectives (such as critical animal studies and posthumanism; ecological and animalist frameworks; philosophy and activism) and investing the tensions they might raise. In this regard, troubling might be seen as a way of addressing the

paradoxes of constitutive exclusion: How can moving from ecological models of neurodiversity as biodiversity *without* nonhuman animals to antispeciesist-posthumanist models of neurodiversity as species trouble help us reorient the more-than-human turn in neurodiversity studies? How can we subvert the meanings and effects of neurological discourse, which is both the historical foundation of the neurodiversity movement and the source of unique forms of harm against neurodivergent people? How can a strategic humanism help us resist the mobilisation of posthumanist philosophy against animal liberation, thus moving towards a more concrete dismantling of humanism and speciesism? The methodology developed in Part II, then, allows me to interrogate the implicit assumptions at work in marginalised political movements and academic research.

PART I – DISHUMAN MODERNITY: PARASITIC READINGS OF AUTISM INTO POST/HUMANIST PHILOSOPHIES

INTRODUCTION: AUTISM AS A FIGURE OF DISHUMAN MODERNITY

In its clinical and cultural construction in the West, autism has become somewhat of a symbol of modernity. Although autistic people have likely existed before, and (will) continue to exist outside the socio-historical and geographical context that led to the development of the scientific figure of autism – or, as it currently stands in diagnostic classifications, of Autism Spectrum Disorders (ASD) – the latter construction is inextricably rooted in Western modernity. To this day, the figure of the autistic crystallises core traits and tensions of Western modernity: the autistic subject is commonly described as an inflexible individual disconnected from the outside world. Its (or rather, his) rigid, bounded, and solipsistic individuality is traditionally framed as a pathologised and distorted version of typical humanity, in which, by contrast, orderliness, boundedness, and autonomy are seen as exceptional features that may distance one from the realm of the nonhuman. Far from a figure of radical alterity or exteriority – in the image of the animal, the plant, or nonliving matter – then, the autistic instead appears to occupy a position of relative proximity to the traditional conception of the human. This ambivalent position of being at once humanised and dehumanised makes the figure of the autistic available for rhetorical and political manipulations of different kinds, among which is pathologisation.

How can we understand this reversal of valued human traits into pathologised autistic symptoms? The traits that are deemed to constitute, for the typical human, the ontological conditions for openness to the world and to others and for the healthy development of the organism, become, in the autistic individual, pathological symptoms to be corrected. Is pathologisation here the result of an empirical observation, of an objective difference of degree? Is it the excessive amplification of human traits that may otherwise be considered normal that tips the autistic individual over into pathology, or is there a different issue at stake?

Given the pathologisation of autistic traits, it may at first glance seem paradoxical that autism is increasingly mobilised to support and consolidate a range of hegemonic representations and orientations on scientific, cultural, affective, and political scales. In the modern era, which is marked by a succession of narcissistic wounds – from the heliotropic turn

and the discovery of evolution to the 'death of Man' and the geological age of anthropocenic catastrophe – the normative human individual of Western modernity is increasingly destabilised. In this context, the figure of the autistic often functions as an operator of stabilisation: so it is mobilised, for example, in anti-trans movements to justify the ban of gender-affirming care for minors. More commonly, it is invoked as a cause of humanity's downfall and associated with the sin of anthropocentrism: so an autistic – read solipsistic and egocentric – attitude towards nature is sometimes said to have precipitated the advent of the climate crisis.

The dual nature of the autistic figure – mobilised by 'conservative' and 'progressive' agendas at once – suggests that autism has become much more than an objective reality. In many ways, autism has largely given way to the figure of 'the autistic', which functions according to the principles of instrumentality and constitutive otherness. Instrumentality, first, to the extent that 'the autistic' no longer exists or functions in and for itself, as an individual or collective subject with its own interests and preferences but is always already mobilised in multi-layered social constructions and representations. Moreover, diffuse affects of anxiety, fear, and outrage are seemingly channelled into it to sustain and materialise diverse political agendas: the institution of a strong, authoritarian state, the closure of national borders, the strict regulation of gendered embodiment, or the denigration of allegedly 'controlling' or 'restrictive' environmental policies. In this sense, we could describe autism, with Stuart Murray, as a 'zeitgeist condition',[73] or, with Novina Göhlsdorf, as a 'diagnosis of the present'.[74]

Constitutive otherness, then, because – and this is one of the core arguments sustained in Part I of this thesis – autism has served, from the onset, as a decisive instrument in the reconfiguration of the modern concepts of humanity and animality, often through its separation from the former and its assimilation to the latter. In this regard, the figure of the autistic is permeated by an array of scientific, cultural, and political representations of humanity and animality, which intersect with lines of gendered, raced, and classed figuration, all of which have been historically developed and sustained in the European and North American contexts during capitalist modernity-coloniality. The role of the autistic figure in these apparatuses has gradually increased as the traditional concept of the human has become increasingly contested.

Indeed, the contemporary era has been described as a 'posthuman predicament',[75] which questions pre-existing notions about the nature of the human and interrogates who or 'what counts as human'.[76] At the same time, it has become common practice to describe our current

[73] Stuart Murray, *Autism,* New York: Routledge, 2012, p. 72.
[74] Novina Göhlsdorf, 'Autismus. Diagnose der Gegenwart' *Kinder- und Jugendlichen-Psychotherapie. Zeitschrift für Psychoanalyse und Tiefenpsychologie*, vol. 182, no. 2 (2019), pp. 277–303.
[75] Rosi Braidotti, *Posthuman Knowledge*, Cambridge and Medford: Polity, 2019, p. 8.
[76] *Ibid*., p. 6.

geological era as the Anthropocene: the age of the human. With the advent of posthumanism in Western modern history, the relevance of the traditional concept of the human is becoming less and less evident. In many ways, however, humanist philosophies continue to permeate and orientate the workings of social, political, cultural, and legal life in Euro-American contexts, and, through the effects of (neo)colonial interventions and postcolonial legacies, around the globe. In this context, the relationship between humanism and posthumanism, or between the human and the posthuman, is reflected in the dual status of the autistic: various, potentially opposed realities appear to coexist in one single site.

Post/Humanist Philosophies

Humanism is not a linear project, a homogeneous movement, or a unified philosophy; nor is posthumanism. On the contrary, it has gone through multiple stages and taken on equally diverse forms. The early humanism of Descartes, often simplistically presented in antihumanist philosophies as the departure point of humanist scientific modernity and, therefore, as the main target for posthumanism, has been superseded by new forms of humanism in the West. These coexist with historical and contemporary forms of humanism rooted in different philosophical and political traditions (liberal, socialist, fascist, decolonial, etc.) and geographical contexts, which attribute distinct meanings to the concept of the human. Similarly, between techno-euphoric and techno-sceptic; feminist, critical, and popular; trans-, non-, in- and classically post-humanist variants of posthumanist thought, there are profound, sometimes abyssal differences.

The three chapters that constitute Part I engage with philosophical and scientific theories – Jakob von Uexküll's Umwelt theory (Chapter 1), Kurt Goldstein's theory of the organism (Chapter 2), and Arnold Gehlen's theory of the *Mängelwesen* (Chapter 3) – that run counter to Cartesian dualism while being solidly anchored in anthropocentric projects. To the exception of Uexküll, this constellation of theories has received marginal attention in posthumanist scholarship to this day, but I suggest that it belongs to a particularly instructive moment of (re)configuration of humanist and posthumanist thought.

Although difficult to group under a single label, these philosophies can nevertheless be brought together by their geographical and historical origin: the twentieth-century German-speaking world. Their authors also belong to various movements that cannot be described as established schools of thought, but rather as more or less cohesive constellations of ideas: theoretical biology, phenomenological psychology, and German philosophical anthropology. Beyond these different affiliations, they embody a similar mindset that is perhaps representative of the larger *zeitgeist* shift that marked the German-speaking world in the first half of the

twentieth century. These broad geographical and historical brackets are relevant to the discussion of humanism and posthumanism because, as the philosopher of critical posthumanism Stefan Herbrechter notes: 'The crisis of humanism and the Enlightenment intensified during and after the two world wars, in the first half of the twentieth century, when the irrational core within rational-enlightened modernity became visible in the light of the systematic extinction of Jews by the Nazis and the possibility of humanity's nuclear self-destruction.'[77] It is indeed difficult to find a historical moment when the internal tensions within humanism were more apparent.

On a historical scale, these texts can help us uncover some of the core features of European modernity with regard to the hegemonic conception of what (and who) counts as human and what (or who) should be described as animal. In this way, they can help us understand the kind of socio-political context in which the psychiatric concept of autism emerged. Moreover, through their reception beyond the German-speaking world, for example, in France or in the United States of America, these philosophical theories have undergone a series of transformations which have rendered them available for new philosophical uses and scientific practices.

Interestingly, these philosophies are increasingly mobilised within posthumanist theory. This may perhaps be explained by their tendency to break from traditional forms of dualism, such as nature/culture and body/mind, championing a reconnection between humans and nature. In doing so, they may have anticipated the posthumanist impetus to resist traditional forms of anthropocentrism and contributed to the development of ecological thought in Europe. These theories are also characterised by a commitment to bringing together the human sciences and the life sciences. In this regard, these approaches are broadly inspired by a range of philosophical traditions developed mainly in the German-speaking area – German idealism (primarily Immanuel Kant), *Lebensphilosophie* (e.g. Dilthey and Schopenhauer), phenomenology (notably Husserl), vitalist and holistic thought (such as Bergson, Driesch, etc.) – which they reframe and anchor within the sciences of their time, such as anthropology, ethnology, zoology, ethology, psychiatry, or compared psychology. In this way, these approaches echo – and perhaps anticipate – the new materialist turn in critical and feminist theory today, which has sometimes rendered them available for qualifications of 'proto-posthumanisms'.

When they are not described as precursors to posthumanist thought, these theories are sometimes retrospectively positioned as potential instruments to rethink posthumanism today. For example, according to Herbrechter, the negative anthropology found in philosophies such

[77] Stefan Herbrechter, *Posthumanism: A Critical Analysis*, London and New York: Bloomsbury Academic, 2013, p. 52.

as Gehlen's could be inscribed into an alternative genealogy for posthumanism that deviates from, and complements, the 'official'[78] version, which finds its origin in Anglo-American settings with the work of Donna Haraway, Katherine N. Hayles, or Rosi Braidotti.[79] According to him, there is a 'German posthumanism'[80] to be traced with these approaches. With this alternative genealogy, Herbrechter envisions a new horizon for posthumanism with what he calls a 'European Posthumanism-to-Come'.[81] It is critical to highlight that, for Herbrechter, this European posthumanism is not a return to a mythical, homogenised European past, as in the fascist project, but the critical inheritance and ongoing deconstruction of the European tradition. To this end, he (re)turns to the aforementioned '"negative *post*-anthropology", whose aim it must be to work through our "residual" humanness as divested of any known form of humanism'.[82]

However, Uexküll's, Goldstein's, and Gehlen's philosophies have also been described as 'neohumanist',[83] including by posthumanist scholars such as Roberto Marchesini. The latter stands out in the field of posthumanism due to his close philosophical and critical engagement with these ideas, which can, in a certain sense, be associated with the critical posthumanist project envisioned by Herbrechter. As Marchesini suggests, alongside the many historians of philosophy who have dedicated extensive research to this historical and geographical context, these theories remained largely anthropocentric despite their interest in the more-than-human. This is particularly true of Gehlen, who engaged with nonhuman life and biological conceptions not so much to trace the continuities between the human and the animal, but rather to highlight the unique position of the human in nature. In this way, his theory remains rooted in human exceptionalism. This trend is also visible (although less directly so) in Uexküll and Goldstein, who, as we will see, developed less hierarchical biologies that remained nonetheless permeated by distinctly humanist (e.g. sexist, racist, classist, or ableist) values.

This ambivalence in the reception and interpretation of these philosophical traditions evidences deeper tensions that have run through European philosophy, particularly the divide between affirmative or positive approaches (to which one traditionally associates Aristotle, Spinoza, Hegel, Deleuze, etc.) and negative or critical approaches (in which one conventionally

---

[78] Stefan Herbrechter, 'Posthumanism's German Genealogies', keynote delivered at "Posthumanism and the Posthuman: Chances and Challenges", University of London, March 2023, accessed 12 March 2026, p. 2. https://stefanherbrechter.com/wp-content/uploads/2024/11/Posthumanisms-German-Genealogies.pdf.

[79] It must be noted that, while Rosi Braidotti's philosophical career has been based in Europe (respectively in Paris, France, and Utrecht, The Netherlands), her work seems to have received most echoes in Anglo-American academic settings. It is telling, for example, that Braidotti's work was never translated into French.

[80] Herbrechter, 'Posthumanism's German Genealogies', p. 8.

[81] *Ibid*., p. 5.

[82] Stefan Herbrechter, *(Un)learning to Be Human? Collected Essays on Critical Posthumanism. Volume 1*, Leiden and Boston: Brill, 2024, p. 242.

[83] Roberto Marchesini, *Over the Human: Post-humanism and the Concept of Animal Epiphany*, Cham: Springer, 2017, p. 34.

positions Heidegger, Adorno, the first Foucault, Derrida, etc.). To each of these poles corresponds a certain way of doing posthumanist philosophy today: the Harawayan and Braidottian perspectives, which are part of the 'official' genealogy, belong in the positive branch and may sometimes propose 'an affirmative, systematic or positive definition of the human' as a posthuman.[84] On the contrary, the tradition of negative posthumanism – understood as the ongoing deconstruction of humanism[85] – remains more cautious about these ontological reconfigurations and appears to have remained more marginal in the field to this day.

What is at stake for me here is not to settle the debate or to minimise the gap between these diverging philosophies. On the contrary, my intent here, in studying three theories (Uexküll's, Goldstein's, and Gehlen's) which reflect both affirmative and negative traditions, is to highlight the centrality of the tension itself: by trying to repress negativity or cast it out of the picture (of modernity, the 'human' category, humanism, or posthumanism itself), we inevitably lead it back to the surface. This is evidenced by the conceptual and strategic divergences that have opposed posthumanism with critical animal studies and other fields of critical thinking. For the latter, affirmative posthumanism has proven largely incapable of properly addressing the issue of negativity, represented among others by the avatars of violence, exploitation, death, and extinction, too focused that it has been on celebrating the entanglement and co-mingling of human and more-than-human beings. This is why, perhaps, posthumanist theory is increasingly grappling with matters of negativity today.[86]

Large parts of the (micro)politics of posthumanism today remain committed to an affirmative and positive horizon, which may prove insufficient to find satisfactory answers to the problem of negativity. Turning to the European – and particularly German – counter-genealogy of posthumanism may therefore allow us to bring negativity back into the picture, notably by dramatising and amplifying a set of core tensions that lie at the heart of modern European societies. Rather than picking one side or the other, then, my attempt with this first part of the thesis is to make visible a field of ambivalence which may not let itself be so easily disentangled.

To reflect these ambivalences and tensions within and between humanism and posthumanism, I use the phrase 'post/humanist philosophies' to qualify Uexküll, Goldstein, and Gehlen's theories, along with the broader constellation of authors and thinkers they have mobilised and inspired to this day. In this phrase, the slash allows us to interrogate these

[84] Herbrechter, 'Posthumanism's German Genealogies', pp. 8–9.
[85] See Neil Badmington, 'Introduction: Approaching Posthumanism', in *Posthumanism*, ed. Neil Badmington, pp. 1–10, Basingstoke and London: MacMillan, 2000; Herbrechter, *Posthumanism*, p. 45.
[86] See Claire Colebrook, *The Death of the PostHuman: Essays on Extinction, Volume One*, Ann Arbor: Open University Press, 2014; Patricia MacCormack, *The Ahuman Manifesto: Activism for the End of the Anthropocene*, London and New York: Bloomsbury Academic, 2020; Nina Lykke, Tara Mehrabi, and Marietta Radomska (eds.), *Routledge International Handbook of Queer Death Studies*, London and New York: Routledge, 2025.

tensions by making visible the space that separates (but also connects) humanism and posthumanism. As Herbrechter explains, '[t]he oblique or slash between "post" and "human" (post/human) proposed by [Elaine] Graham mainly serves to gain time and to create a critical space for a more thorough deconstruction of humanism, without which an uncritical reinscription of humanist ideology into posthuman(ist) forms would be inescapable'.[87]

In this sense, the conceptual gesture performed by the slash serves a critical and normative function: it is a matter of dwelling in the space of the encounter in order to bring about posthumanism as a deconstruction of humanism, or what Herbrechter names a 'working through' [*Durcharbeiten*] of humanism.[88] Such a gesture is also descriptive: it enables me to develop new accounts of philosophical theories that seemingly contain posthuman(ist) as well as nonhuman(ist) and inhuman(ist) components. The phrase thus signals the dual status of the non-, in-, or post-human as a repressed feature of humanism itself or, as I will describe it throughout the thesis, as a constitutive other. There is always already a posthuman (or rather, as some have called it following Jean-François Lyotard, an *inhuman*) component at work in humanism: 'Both, the fascination with and the negation of the inhuman are an intrinsic part of humanism and its repertoire, since the binary opposition between human and inhuman constitutes its very foundation.' [89]

In this way, I engage in a form of critical posthumanism in Part I of this thesis, a perspective that consists of making visible the negativity at work in positivity, the inhuman operating within humanity. This approach aims to deconstruct and destabilise the traditional, positive conception of humanity and humanism: this is a matter of revealing the dialectic of humanisation and dehumanisation, or rather of humanisation *through* dehumanisation. I suggest that disability occupies one such position of constitutive otherness within post/humanist modernity, namely, one of the tropes through which humanisation (of able-bodied people) is guaranteed by dehumanisation (of disabled people, among which autistics).

Dis/Ability and Dishuman Modernity

What is the relationship between post/humanism, on the one hand, and disability or neurodivergence, on the other? This question is all the more difficult to answer as autism only appeared on the public stage in 1943-1944 with the work of Leo Kanner and Hans Asperger, sometimes many long years after the authors examined in Part I had first developed their theories. A key to understanding this intersection may be found in the work of Dan Goodley

[87] Herbrechter, *Posthumanism*, p. 60.
[88] *Ibid*., p. 69.
[89] *Ibid*., p. 49.

and Katherine Runswick-Cole. These posthumanist scholars have developed the concept of the dishuman to advocate for 'a time when thinking about the human will *always* involve thinking about disability'.[90] Dishumanism, as a framework, seeks to ask questions like 'What does it mean to be human in the 21st Century and in what ways does disability enhance these meanings?'[91]

In their 'DisHuman Manifesto' published in 2015, these thinkers have therefore called for a new approach, situated at the intersection of disability studies and posthumanism, which '[u]npacks and troubles dominant notions of what it means to be human' and '[c]elebrates the disruptive potential of disability to trouble these dominant notions'.[92] In doing so, they have sought to counter the erasure of disability and disabled people in scholarly and activist accounts of humanity and humanism as well as posthumanity and posthumanism. In this sense, their perspective is profoundly political. It can be described as a practice of 'staying with the [humanist] trouble',[93] to paraphrase Donna Haraway: the dishuman approach at once '[a]cknowledges that being recognise[d] as a regular normal human being is desirable, especially for those people who been [have] denied access to the category of the human' and '[k]eeps in mind the pernicious and stifling impacts of ableism, which we define as […] discriminatory processes that idealize a narrow version of humanness and reject more diverse forms of humanity'.[94] If it is true, however, that humanisation relies on dehumanisation, it appears that the strategy of seeking humanisation must be approached carefully. I return to the discussion of political strategy in Chapter 4.

At a more hermeneutical level, dishumanism navigates the tensions and ambivalences between human(ist) ideals of ability – such as autonomy, independence, and personhood – which may still be deemed desirable, and disabled values and experiences – such as mutuality, dependence, and community – which guide posthumanist and disabled thinking and activism. To highlight this tension, one may draw on Dan Goodley's proposal to reconfigure disability studies as 'dis/ability studies',[95] where the slash 'captures the increased presence of disability categories alongside evermore evolving versions of ability'.[96] Dis/ability, as a notion, thus

---

[90] Dan Goodley and Katherine Runswick-Cole, 'Becoming Dishuman: Thinking about the Human through Dis/ability', *Discourse: Studies in the Cultural Politics of Education*, vol. 37, no. 1 (2016), p. 13, emphasis in original.
[91] DisHuman, 'About', 2015, accessed 14 December 2025. https://web.archive.org/web/20160330112632/http://dishuman.com/about/.
[92] DisHuman, 'DisHuman Manifesto', 2015, accessed 14 December 2025. https://web.archive.org/web/20160330115045/http://dishuman.com/dishuman-manifesto/.
[93] Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, Durham and London: Duke University Press, 2016.
[94] DisHuman, 'DisHuman Manifesto'.
[95] See Dan Goodley, *Dis/ability Studies: Theorising Disablism and Ableism*, London and New York: Routledge, 2014.
[96] Kirsty Liddiard et al., 'A DisHuman Manifesto: Project DisHuman, UK', in *Manifestos for the Future of Critical Disability Studies: Volume 1*, ed. Katie Ellis et al., London and New York: Routledge, 2019, p. 158.

points to the current reconfigurations of ability and disability in the posthuman(ist) predicament, where new technologies may at times turn disabled people into hyper-abled individuals, making the dehumanised and allegedly less-than-human subject into a form of hyper- or superhuman. In this way, the DisHuman project's website notes that 'Dis/ability usefully disarms, disrupts and disturbs normative, taken-for-granted, deeply socially ingrained assumptions about what it means to be human and what it means to be able (dis/human). For example, we want to ask what disability does to typical, common-sense normative human categories of adult, youth and family'.[97]

In this thesis, I take the concept of the dishuman to a new level by suggesting that twentieth-century thinking about the human already involved disability, albeit only indirectly. In the three chapters that constitute Part I, I evidence the centrality of disability – via autism – in Uexküll's, Goldstein's, and Gehlen's philosophical conceptions of humanity and animality and their implications for (and entanglements with) the politics of disability, race, class, gender, species, and more. In these texts, which I argue are representative of a dishuman modernity, disability was always already present and inextricably related to discussions of life, animality, and humanity, even when invisibilised and actively erased or resisted.

As this last argument makes clear, I do not limit my reflections to the human. In line with the specific focus of this thesis on animality, I expand my analyses to what Michael Lundblad has called disanimality, namely the idea that unique forms of frictions and conflicted affects emerge at the confluence of disability and animality (more in Chapter 4; see also glossary). In this way, I will show that the dishuman modernity that unfurled in the German-speaking world during the twentieth century is also a disanimal modernity. This means that not only are disabled people routinely dehumanised and animalised by these perspectives, but more broadly, the thinking about the animal that took place in these historical contexts has always involved thinking about disability (albeit only implicitly).

Seeking to examine the dishuman and disanimal modernity that is captured (and perhaps reconfigured) by these theories, my main argument in Part I is that the figure of the autistic crystallises core tensions in Western modernity in relation to dis/ability. The conceptions of the human and the animal developed during the twentieth century have indeed trafficked in tropes of dis/harmony, dis/order, and dis/ease, which have similarly been applied to autism. To put it differently, pathologising representations of ability and disability, neurotypicality and neurodivergence have been central to the modern constructions of the human and the animal.

In these philosophical and scientific constructions, the two poles of the dishuman and disanimal approaches are frequently entangled. This can be explained by the fact that the human

[97] DisHuman, 'DisHuman Manifesto – Elaboration', accessed 14 December 2025. https://web.archive.org/web/20160330115101/http://dishuman.com/dishuman-manifesto-elaborated-version/.

has been historically defined in opposition to the animal, and conversely. In this regard, it is unsurprising that the metaphors and figures of dis/ability applied to one would also appear – albeit often in reverse – in the other. The availability of the figures of the (dis)human and the (dis)animal for being thought together in such a way, if only in oppositional fashion, follows in my perspective from the ontological continuity between humanity and animality. It is indeed because disharmony, disorder, and disease are part of the 'nature' of humanity and animality – or rather of humanity *as* animality, as I would argue – that figures of dishumanity and disanimality can be simultaneously drawn together and set apart.

The theories I examine in Part I offer contrasted views of dis/ability, rooted in different conceptions of what it means to be human or animal. However, all three embody a sense of duality or ambiguity where figures of harmony, order, and health coexist with figures of disharmony, disorder, and disease. Autism, as a posthuman(ist) *zeitgeist* condition and a malleable instrument in the service of (neo)humanism, constitutes one such figure: traditionally construed as a disease or disorder, it has also been mobilised by (or affixed to) these theories as a figure of essential harmony, inherent monadism, or naturalised stability. Rich in dualities, it constitutes a perfect example of dishuman modernity, where traditional humanist conceptions are brought together with neohumanist and posthumanist approaches.

To highlight the field of duality that permeates modern conceptions of humanity and animality, I expand Dan Goodley's use of the slash in dis/ability by applying it to other regimes of dishumanity and disanimality: 'dis/harmony', 'dis/order', and 'dis/ease'. This allows me to highlight the centrality of disability, disease, and vulnerability at large – as repressed figures of constitutive otherness – in the modern conception of the human. In Part II of the thesis, I expand this gesture by demonstrating that (autistic) animality and nonhuman animals have similarly played the role of constitutive others in human(ist) representations of autism.

This deconstructionist – or rather, *dis*constructionist – approach enables me to trace a new horizon for our dishuman modernity, in which (autistic) disorder can be reclaimed as a core component of the post/human(ist) condition alongside the commonly affirmative ideal of order. Beyond demonstrating the role that disability has played (via autism) in post/humanist philosophies of the human and the animal, I suggest that these theories can instruct the study of autism, disability, and neurodivergence when read through dishumanist lenses.

In Part II of this thesis, I demonstrate that more traditional forms of dishuman and disanimal pathologisation continue to permeate the contemporary fields of neurodiversity studies and neurodivergent activism. In this regard, while they carry a humanist and ableist legacy that should be interrogated, the post/humanist philosophies examined in Part I can also function as antidotes to the older and equally problematic logics of mechanicism and reductionism, among other apparatuses of (dis)humanist oppression. Following Goodley and

Runswick-Cole's contention that 'to dis is to trouble',[98] the dishumanist framework deployed in Part I will serve as a foundation for posthumanist approaches to autism and animality as sites of *troubling* in Part II.

Parasitic Readings

In order to evidence the disconstruction of humanism and the multiple axes of tension that permeate our dishuman modernity, I introduce the interpretative methodology of parasitic readings. Inspired by Michel Serres's posthumanist philosophy of parasitism (see Chapter 1), these readings propose that humanism is fundamentally parasitic: it feeds off those whom it classifies as in-, sub-, and nonhuman (its 'constitutive others') to establish and consolidate the position of the typical human. Of course, such an operation must remain invisible if it is to perform the desired effects, which means that the various axes of constitutive otherness (race, class, gender, ability, species, etc.) must be actively repressed and erased from the modern conception of the human.

In order to emphasise these inherent tensions and the dual movements of inclusion/exclusion at work in philosophical theories of humanity and animality studied in Part I, I show that the genealogies of autism and posthumanism developed from these post/humanist philosophies are histories of parasitic readings. Specifically, the mobilisation (or introduction) of dishuman and disanimal figures in(to) these philosophies, as well as the development of posthumanist approaches based on seemingly (neo)humanist traditions, rely on gestures of conceptual and political reclamation that have often remained invisible. In concrete terms, this means that the movement through which Uexküll's, Goldstein's, and Gehlen's philosophies are increasingly claimed as precursors to posthumanism, disability, or neurodiversity studies has relied on erasing tensions rather than acknowledging them or working them through.

With regard to autism, I attempt to highlight and denaturalise the dis/ableist construction of post/humanist philosophies: this entails examining the concrete effects of the autism metaphor when applied to philosophical and scientific theories of humanity and animality. What are the implications of the autism metaphor in post/humanist philosophies for our understanding of animality, and how does it reflect on our understanding of autism? Notoriously, dehumanisation and animalisation have played a central role in the oppression of minoritised human groups like autistic people (see Chapter 4), and the figure of the autistic is often associated with pathologising representations of humans' relationship to the nonhuman in science and collective imagination. What kind of representations of autism and animality are

[98] Goodley and Runswick-Cole, 'Becoming Dishuman', p. 5.

disseminated and consolidated through animal metaphors for autism and autism metaphors for animality?

Attuning to the parasitic noise that permeates my corpus and Western modernity more broadly will allow me to demonstrate their repression of disability and autism specifically. Doing so not only instructs my comprehension of Uexküll's, Goldstein's, and Gehlen's theories, but it also allows me to trace a critical posthumanist genealogy of autism discourse. How are the traditional conceptions of autism (as disorder, disability, or neurodivergence) in Western modernity constituted by implicit forms of anthropocentric, humanist, and speciesist representation? The answer to this question will allow me to lay the foundation for my analysis of the co-construction of speciesism and neuronormativity in Part II, and to highlight the urgency of a posthumanist perspective to neurodiversity studies.

Crucially, if it is true that dishuman and disanimal logics are at work in humanist and posthumanist philosophies alike, it becomes urgent to trace a genealogy of post/humanism that crosses the genealogy of autism discourse. How should we understand the fact that autism is mobilised in theoretical constructions which attempt to interpret the (neo)humanist thinking of Uexküll, Goldstein, and Gehlen in posthumanist ways? Which kinds of parasitic readings are needed for the arguably problematic aspects of these philosophies (e.g. elitism, ableism, speciesism, racism, sexism, conservatism, and so on) to be no longer repressed, but overcome?

The theories I examine in Part I are involved in various forms of reactionary thought and politics, from Nazi-adjacent conservatism to alternative – and only seemingly critical – forms of engagement with the pathology paradigm. However, through the various parasitic readings they have undergone in twentieth-century philosophy and contemporary thought, these philosophies have seen their troubling foundations being increasingly forgotten and backgrounded. By tracing the history of these parasitic readings, I hope to deconstruct the (only apparently) innocent genealogies of Uexküll, Goldstein, and Gehlen as proto-posthumanist thinkers.[99] Following the perspective of critical posthumanism, I suggest that, in order to deconstruct humanism, it is not enough to read humanistic thought in post-humanistic ways (whatever that might mean), but that it is also necessary to remain accountable for the parasitic gestures that make such readings available in the first place.

As Herbrechter aptly notes, 'CPH [critical posthumanism] can thus be said to be "parasitical" in its relation to the various humanisms it deconstructively inhabits'.[100] As is well known, being *against* something often requires staying *right against* it. The critique of

[99] As noted in the general introduction, my use of the terms 'innocence' and 'non-innocence' throughout this thesis is borrowed from Donna Haraway. It signals a dual desire to emphasise and overcome the common tropes of innocence and purity that unfurl in contemporary activism and knowledge production. See more in Chapter 4, or see 'Non-Innocence' in the glossary.
[100] Herbrechter, *(Un)learning to Be Human?*, p. 15.

humanism is no exception. Moving beyond humanism, as critical posthumanism seeks to do, entails 'reworking, critiqu[ing], deconstructi[ng], rewriting'[101] its very logics, or, as Donna Haraway would perhaps put it, staying with its trouble. However, this work should not be accomplished according to the humanist logics of intellectual mastery and selective appropriation, nor without caution for the troubling observation that one risks being parasited by the very theories one attempts to appropriate parasitically. To this myth of the innocence or purity of reading, I substitute the non-innocence of parasitic reading, where the problematic features of a theory can never be isolated once and for all but should instead be continually interrogated and worked through.

To perform such a parasitic genealogy of post/humanist philosophies requires us to emphasise the evolutions and ruptures in thought, the undisciplined and dis/ordered uses of theories that betray and belie the linear genealogies of intellectual property. These troubled genealogies ask critical questions about posthumanism: What if posthumanist philosophy had inherited humanist and neohumanist conceptions of disability all along, albeit only silently, without speaking a word of it?

A more explicit engagement with parasitic readings and genealogies can help us make better use of (neo)humanist philosophies and build more successful counter-genealogies of post/humanist and dishumanist thought. In this regard, beyond its deconstructive and critical aims, my approach to reading Uexküll, Goldstein, and Gehlen parasitically ventures into the field of partial, strategic reclamation. What can we learn from staying with the theoretical contact zones and the politically charged sites generated by the introduction of autism into post/humanist philosophies? With the Serresian parasite, I suggest there is radical potential to be found in the negativity of the dishuman and the disanimal: as figures of disharmony, disorder, and disease, (social and biological) parasites challenge the constitutive repression of disability in humanist thought and, by extension, the ableist conception of the human. In other words, by emphasising the inherent condition of disability in humans and animals and the parasitic potential of autistic animality, we can resist the destructive effects of dishumanity and disanimality and open a path for celebrating them truly and affirmatively.

Another significant aspect of my methodology relates to the literature itself. It would at times be improper to describe my parasitic readings as readings of autism *in* post/humanist philosophies, for I am working with authors who either wrote before the formulation of the autism category (Jakob von Uexküll, Chapter 1) or who simply did not engage with autism in their work (Arnold Gehlen, Chapter 3). An exception to this is found in Kurt Goldstein (Chapter 2), who worked on autism directly, albeit only marginally and during the later parts of his

[101] *Ibid*., p. 14.

career.[102] Similarly, while the figure of autism has been used to describe Umwelt theory and the theory of the *Mängelwesen* in contemporary scholarship, such readings remain primarily metaphorical, and the idea that autism itself can be found in these theories is my own intervention. More adequately, we may thus speak of parasitic readings of autism *into* post/humanist philosophies.

By definition, there is a risk of anachronism in such a reading, paired with the risk of reinforcing autistiphobic and pathologising ideas. There is a risk in associating autism with potentially offensive ideas such as Gehlen's theory of the human as a deficient being. However, my intent here is not so much to *apply* these post/humanist philosophies to the analysis of autism, but rather to (re)introduce, recover, or reclaim autistic perspectives as a way to trouble, deconstruct, and subvert the philosophies themselves. In this way, when I speak of parasitic readings of autism *into* post/humanist philosophies, I describe a hermeneutic gesture which could be likened to Foucaultian genealogy: a historical reading of the past from the perspective of the present, which ultimately seeks to open new horizons for the future.[103] In this way, I am interested in seeing whether reading post/humanist philosophies from the perspective of their constitutive others (the disabled, the autistic, the animal) can help us advance more insightful perspectives on disability, neurodiversity, and animality.

Finally, as I have mentioned before, my selection of Uexküll, Goldstein, and Gehlen as the objects of my readings in Part I is motivated by what I perceive as parasitic potentials: German-language philosophical biology, philosophical ethology, and philosophical anthropology are little-known in English-speaking contexts and therefore lend themselves to parasitic readings that are not yet overdetermined by rigid historiographical frameworks. These philosophical approaches have also directly grappled with the problem of National Socialism, which makes them a privileged object of inquiry to examine European political modernity as it relates to matters of dis/ability and dis/order.

[102] This will be reiterated in Chapter 6 through a briefer parasitic reading of Niko and Elisabeth Tinbergen's ethological theory of autism.
[103] For more on genealogy in Foucault, see Michel Foucault, 'Nietzsche, Genealogy, History', In *Language, Counter-Memory, Practice: Selected Essays and Interviews*, ed. Donald F. Bouchard, pp. 139–64, Ithaca: Cornell University Press, 1977.

CHAPTER 1 – FROM THE TICK TO THE AUTISTIC: JAKOB VON UEXKÜLL'S UMWELT THEORY

INTRODUCTION

In the afterword to the English edition of *A Foray into the Worlds of Animals and Humans*, Geoffrey Winthrop-Young comments on the name of its author, Jakob von Uexküll. In Estonian, Uexküll means 'one village', but it also conjures the idea that 'one is enough'.[104] Drawing on this observed ambivalence, Winthrop-Young comes up with a phrase that 'contains the […] essential polarity' of Uexküll's theory: 'a village of one'.[105] He suggests, in this sense, that Uexküll's thinking bridges dualisms, such as the one between 'planned integration and *near-autistic solitude*'.[106] The same year, Kijan Malte Espahangizi refers to this very polarity in the introduction to his doctoral thesis on the *Historical Ecology of Modern Laboratory Research*. There, he underpins 'Uexküll's sometimes contradictory attempts to counteract the impending *epistemological autism* of his "subject-environment monads" by assuming an all-encompassing "natural subject" and/or a "world plan"'.[107]

In this chapter, I examine Jakob von Uexküll's Umwelt theory and the ways it was taken up by a wide range of thinkers (philosophers of biology, posthumanists, phenomenologists, students of Uexküll, etc.).[108] I analyse the two most famous examples and metaphors of Umwelt theory, respectively the female tick and the soap bubble, in order to examine the disanimal genealogies of discourse on autism and animality. I show how these figures have lent Umwelt theory to diverse qualifiers, considering it alternatively proto-ethological, behaviourist, (proto-)posthumanist and, perhaps more surprisingly, autistic. Rather than trying to set the record straight and settle the debates about the true nature of Umwelt theory, I develop a parasitic reading of said theory and its various uses in contemporary thought. I argue that, by feeding on Umwelt theory to serve different goals and ambitions, regardless of Uexküll's theoretical and

[104] Geoffrey Winthrop-Young, 'Afterword', in Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans: With a Theory of Meaning*, Minneapolis and London: University of Minnesota Press, 2010, p. 242.
[105] *Ibid*.
[106] *Ibid*., my emphasis.
[107] Kijan Malte Espahangizi, *Wissenschaft im Glas: Eine historische Ökologie moderner Laborforschung*, PhD thesis, ETH Zurich, 2010, p. 30, my emphasis, my translation.
[108] Though coming from German, the word 'Umwelt' is often kept untranslated in the literature on Umwelt theory and is thus written in roman in this text.

political orientations, these thinkers have made it available for new philosophical elaborations while often reproducing some of its more problematic gestures.

The goals and modalities of this parasitic reading are multiple. First, I am interested in exploring an epistemological question regarding the history of autism. What does it mean (for Winthrop-Young, Espahangizi, or myself) to describe Uexküll's Umwelt theory as autistic when we remember that the concept of autism, as discussed by Leo Kanner (1943) and Hans Asperger (1944), did not appear before the death of Jakob von Uexküll in 1944? The autism metaphor used by Winthrop-Young and Espahangizi takes the form of what Donna Haraway calls a 'material-semiotic' figure[109]: it encompasses an array of ideas, affects, and practices developed not only through the autism concept within a scientific setting but also more broadly in social, cultural, and political discourse and representation. In exploring the autism metaphor in Umwelt theory, I am not so much trying to determine whether said theory can or cannot be described as 'autistic' – in the same way that I am not so interested in retrospectively diagnosing famous scientific figures such as Einstein or Darwin as autistic – but rather to highlight the entanglement of different registers of thinking (clinical, scientific, philosophical, social, cultural, political) involved in discourse about autism.

How does Umwelt theory testify to a form of dishuman (including disanimal) modernity in which thinking about humanity (and animality) involves grappling with disability? I suggest that a form of anxiety surrounding dis/connection and dis/harmony has haunted Umwelt theory from Uexküll's time to our days. This is evidenced by Uexküll's ambivalent use of tropes, examples, and metaphors – such as the female tick and the soap bubble – which embody harmony, order, and connection and disharmony, disorder, and disconnection at once. In this dishuman and disanimal modernity, the figure of the autistic plays a critical role by embodying a prototypical form of animality. Moreover, while the autism metaphor used by Winthrop-Young and Espahangizi will prove pathologising, could a neurodivergent-posthumanist perspective help us shed a new, more positive light on autism and animality? In this chapter, I thus examine famous parasitic readings of Umwelt theory before developing my own parasitic readings.

To this end, I begin by introducing Umwelt theory and its reception in Uexküllian studies, French and German twentieth-century philosophies, and contemporary posthumanist studies. I highlight the tensions that permeate the theory and the ways these ambivalences have often been set aside in Uexküll's reception. I describe these readings as parasitic. Then, I develop my own kinds of parasitic readings of Umwelt theory, drawing on Michel Serres's posthumanist philosophy of parasitism. I show how the examples of the female tick and the soap bubble

[109] Haraway, *Staying with the Trouble*, p. 13, 31.

illustrate Uexküll's – potentially unconscious – attempt to repress the trouble with dis/harmony and dis/connection.

I — Umwelt Theory and Its Reception

In this first section, I examine Umwelt theory and its reception from Uexküll's time to this day. I begin with a short introduction to the theory, which highlights its key concepts and theses, its philosophical inspirations, and the problems it has raised. To do so, I draw from research in Uexküllian studies, which have historically tended to focus on the internal analysis of Uexküll's ideas rather than on applying them to other contexts.

Then, I offer a broad overview of the reception and diverse readings of Umwelt theory in twentieth-century French and German philosophies. In this section, I show that most engagement with Umwelt theory in twentieth-century continental philosophy consisted in borrowing and magnifying some of Uexküll's ideas and metaphors (such as the example of the female tick) while leaving others untouched (such as Uexküll's conservative political biology). I provide a brief overview of the diverse ways Umwelt theory was used or applied by philosophers, which I describe as parasitic readings, namely, readings which take elements from a theory and put them to use in different contexts in ways that are not necessarily aligned with said theory or that even directly contradict the main goals and principles of its author.

Drawing on these insights, I finally discuss oppositional genealogies of Umwelt theory as (proto-)posthumanist and conservative. Without trying to set the record straight or settle the debate, I suggest that such historical and contemporary studies of Umwelt theory have been relying on parasitic readings. Particularly, I note that the metaphors of Umwelt theory, such as the female tick or the harmonious melody, which Uexküll develops in the introduction to *A Foray into the Worlds of Animals and Humans*, are particularly instructive given their posterity in twentieth-century philosophy.

1. Introducing Jakob von Uexküll's Umwelt Theory

'*Organisms are subjects and not machines*.'[110] This axiom, which we owe to Jakob von Uexküll, is foundational to what André Conrad names 'comprehensive ethology', a field of research

[110] Jakob von Uexküll in Frederik J. J. Buytendijk, *L'Homme et l'Animal. Essai de psychologie comparée*, Paris: Gallimard, 1965, p. 47, emphasis in original. I translated this and all later citations of this reference from French.

interested in how (human and nonhuman) animal behaviour expresses a significant relationship with one's environment, thus breaking away from a more traditional, mechanistic ethology.[111] Jakob von Uexküll (1864-1944),[112] a Baltic German biologist who specialised in animal physiology and behaviour, was most famous for his notion of 'Umwelt', which could be roughly defined as the perceptual-behavioural horizon of a given organism or species.[113] 'Umwelt', in German, means 'the world around', or 'surrounding world', and refers to the lived world or milieu that a being experiences. The word also refers to 'the environment' in everyday German.

Interestingly, Uexküll's Umwelt theory [*Umweltlehre*] predated the birth of ethology, the science of behaviour in (first) nonhuman and (later) human animals, which developed in the 1930s through the works of Nikolaas Tinbergen, Konrad Lorenz, and Karl von Frisch (see Chapter 6). Fundamentally curious 'about the diversity of worlds on Earth',[114] Uexküll was one of the first modern biologists to acknowledge and examine the subjective component of animal behaviour. This epistemic generosity towards nonhuman animals perhaps makes Uexküll – with the exception of Darwin and his work on *The Expression of Emotions in Man and Animals* (1872) – the main precursor of modern ethology. In this sense, Uexküll's Umwelt theory has long been described as a form of animal psychology.[115] It inspired the work of psychologically-oriented human and animal biologies, such as Frederik Buytendijk's or Kurt Goldstein's (see Chapter 2), as well as the foundation of biosemiotics and parts of second-order cybernetics.

The main argument championed by Uexküll's theory is that all species, and perhaps also all organisms, inhabit unique lived worlds (the Umwelten) tailored to their particular sensoria, physiological capacities and, most importantly, ethological needs – though not yet defined as such. It is now well known that different species perceive the world differently and that various forms of consumption (herbivory, carnivory, etc.) and biological needs come with unique forms of existence. Dogs mostly experience their surroundings through smell and have poor eyesight, while bats orientate through echolocation. Meerkats face high predator pressure, which is probably why they are often hypervigilant, whereas orcas, who are apex predators, lead comparatively peaceful lives in the wild. According to Uexküll, these various species inhabit different worlds, and what constitutes a meaningful perceptual cue for the meerkat or the dog might not even be perceivable by the bat or the orca.

---

[111] See André Conrad, 'Ruyer et les leçons de l'instinct. L'éthologie compréhensive : Von Uexküll, Buytendijk, Ruyer', *Philosophie*, vol. 149, no. 2 (2021), pp. 12–27.

[112] In an effort of contextualisation and historicisation, I mention the years of birth and death of past thinkers throughout the thesis when offering genealogical analyses.

[113] While the Umwelt is usually described as species-specific, Uexküll himself spoke of individual Umwelten – the plural for Umwelt – in various occasions, for instance with the contrast between the 'spirited dog' and the 'timid dog'. See Jakob von Uexküll, *A Foray into the Worlds of Animals and Humans: With a Theory of Meaning*, Minneapolis and London: University of Minnesota Press, 2010, p. 106.

[114] Franklin Ginn, 'Jakob von Uexküll Beyond Bubbles: On Umwelt and Biophilosophy', *Science as Culture*, vol. 23, no. 1 (2014), p. 13.

[115] See Georges Canguilhem, *Knowledge of Life*, New York: Fordham University Press, 2008, p. 110.

In other words, one could say with Uexküll that there isn't *one* world shared by all animals, but a diversity of experienced worlds related to the sensoria and ethological needs of animal species and/or individuals. Uexküll does acknowledge the existence of a material environment – or *Umgebung* in German, often used in the plural form, *Umgebungen* – which he explains is 'nothing else but our own, human environment'.[116] Even within the human species, various Umwelten can be differentiated based on culture or profession: physicists' descriptions of the world differ from those of chemists and musicologists.[117] The Umwelt of an animal (human or nonhuman) thus refers to a subjective construction, a way of relating to one's *Umgebungen*. In this sense, the world itself might be nothing more than the sum of all animals' Umwelten.

Uexküll is inspired by Immanuel Kant's philosophy of transcendental idealism (*Critique of Pure Reason*, 1781), which he read at a young age and cites as a core inspiration.[118] In Kant's philosophy, the human subject does not access the real external world, or the 'thing in itself' – also called the *noumenon* – but only particular *phenomena*, representations, or manifestations of the world. For Kant, the human mind accesses phenomena through pre-determined categories, or pure and *a priori* concepts of the understanding, such as quantity, quality, space, time, or relation. Leibniz, before Kant, had described the spatial and temporal properties of things not as intrinsic and determined by physical processes and connections, but as stemming from the mind of God. Kant offers a more secular philosophy, but his position is idealist rather than realist. Uexküll, in turn, materialises Kantian transcendentalism, suggesting that the *a priori* structures of perception come from a species' morphological and biological constitution.

With this idea, Uexküll extends Kant's thesis that the subject is the active builder of its world or reality. In this sense, Umwelt theory opposes epistemological realism, which argues that reality can be accessed in itself. In the same way that the Cartesian '*cogito ergo sum*' turns humans into 'masters and possessors of nature',[119] Uexküll explains that 'no one is a product of his [*sic*] milieu—everyone is master of his Umwelt'.[120]

Beyond the shift from pure idealism to a form of transcendental materialism, Uexküll also opens Kantian philosophy to the more-than-human, offering a metaphorical *Foray into the Worlds of Animals and Humans*. In doing so, he explores the variety of animal forms without

[116] Uexküll, *Foray*, p. 53.
[117] *Ibid*., pp. 133–5.
[118] Jakob von Uexküll, *Theoretische Biologie: 2. gänzlich neu Bearbeitete Auflage*, Berlin: Springer, 1928, p. 3: 'The task of biology is to expand the outcome of Kant's research in two directions: i. to take into account the role of our body too, in particular of our sense organs and central nervous system, and ii. to investigate the relationships with the objects of the other subjects (animals).' See also Carlo Brentari, *Jakob Von Uexküll: The Discovery of the Umwelt Between Biosemiotics and Theoretical Biology*, Cham: Springer, 2015, p. 22.
[119] René Descartes, *A Discourse on the Method of Correctly Conducting One's Reason and Seeking Truth in the Sciences*, Oxford: Oxford University Press, 2006, p. 32.
[120] Jakob von Uexküll, 'Weltanschauung und Gewissen', *Deutsche Rundschau*, no. 197 (1923), p. 266.

presupposing any hierarchy, and he even contends that the worlds of smaller, so-called 'lower' animals, such as insects, are often more complex than those of so-called 'higher' animals, like horses. Indeed, as Frederik Buytendijk notes, though the Umwelt of the insect might be more easily described,

> it is only in appearance that the behaviour of unicellular organisms lends itself more easily to explanation than that of other organisms. The animals occupying the lowest rung of the zoological systematics – the amoebae – already display 'supra-machinal norms', since they do not limit themselves to using organs adapted to the environment, but, according to their needs and situations, produce new organs characteristic of the species, [called] phyletypic. So von Uexküll concluded: 'The amoeba is less of a machine than the horse.'[121]

And indeed, description does not always equal understanding. To properly understand animal behaviour with Uexküll, something more is needed than description of the processes at hand, namely 'interpretation'.[122] In the words of Uexküll himself: '[e]ven the simple reflex of blinking at the approach of a foreign body to the eye is no mere progression of a chain of physical causes and effects, but rather, a simplified functional cycle, which begins with perception and ends with effect.'[123] Again, the kind of theoretical biology formulated by Uexküll, because of its emphasis on the relation of meaning between the subject and its environment, has often been described in his time as somewhat closer to the sciences of the mind (*Geisteswissenschaften*) than the natural sciences (*Naturwissenschaften*), to use Dilthey's classification.[124]

Though inspired by Kantianism, close to the *Geisteswissenschaften* and often used in phenomenological approaches to animal subjectivity, Umwelt theory is far from psychological in any sense of the term. As noted by Morten Tønnessen, 'Uexküll did not approve of the animal psychology (*Tierpsychologie*) of his time'.[125] The description of the Umwelt as the sum of its functional circles, for instance, evidences this anti-psychologism. The functional circle [*Funktionskreis*], sometimes translated as 'functional cycle', refers to a perception-behaviour dyad composed of one perceptual mark (or cue) and one behavioural mark (or cue). Indeed, for Uexküll, each behaviour (e.g. feeding oneself on a plant, building a nest, attacking an intruder,

---

[121] Frederik J. J. Buytendijk, *Traité de psychologie animale*, Paris: Presses Universitaires de France, 1952, pp. viii–ix. My translation. The term 'phylétypique', used by Buytendijk, would likely be replaced by the more common 'phylotypic' today.
[122] Elizabeth Grosz, *Becoming Undone: Darwinian Reflections on Life, Politics, and Art*, Durham and London: Duke University Press, 2011, p. 238.
[123] Uexküll. *Foray*, p. 147.
[124] See Conrad, 'Ruyer et les leçons de l'instinct' and Maurizio Esposito, 'Kantian Ticks, Uexküllian Melodies, and the Transformation of Transcendental Philosophy', in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, London and New York: Routledge, 2020, pp. 47–8.
[125] Morten Tønnessen, *Umwelt Transition and Uexküllian Phenomenology: An Ecosemiotic Analysis of Norwegian Wolf Management*, Tartu: Tartu University Press, 2011, p. 31.

etc.) is enacted through loops which can be decomposed into a perceptive sign – a sensory stimulus to which the organism grants a specific meaning – and a corresponding action.[126] For Uexküll, the perceptual and behavioural cues are two sides of the same coin.

These dyadic perception-action compounds can also be added up to account for an individual's whole Umwelt. This means we could virtually exhaust the description of the sensory stimuli and actions one animal can perceive and enact. This sum represents the Umwelt, which is decomposed into a perceptual world (*Merkwelt*) and a behavioural world (*Wirkwelt*). 'The farthest plan' of perception and action, that is, the horizon of the animal's world, delimits the borders of the Umwelt.[127] The search for an exhaustive description of an animal's Umwelt is more easily accomplished for 'smaller' Umwelten, like that of the tick, than for larger Umwelten, like those of complex mammals (such as primates). However, Uexküll is more interested in understanding *how* the Umwelt unfolds in the smaller Umwelten.[128]

The functional circle, as becomes clear, relies on a minimal conception of subjectivity: the animal, in Uexküll's view, does not necessarily make a conscious and deliberate choice when performing a behaviour that matches a perceptual cue. Rather, this correspondence arises from the animal's blueprint or building plan [*Bauplan*], itself stemming from what Uexküll calls the 'plan' of Nature. In this regard, Uexküll deems Darwinian evolution suspect because of its mechanism. He judges that it is complicit with 'English morality' – particularly its emphasis on individual human rights and consequences rather than duties[129] – and adopts, instead, a more holistic ontology.

For Uexküll, the idea that the phenomenon of life arose 'thanks to an appropriate chemical combination' is 'untenable'.[130] He believes instead in a finalist, supra-mechanical understanding of life inspired by vitalism. In other words, Darwinian evolution relies on contingency and openness – i.e. on chance enacted through biological variations or mutations – in the emergence of new life forms and observes patterns of evolution only *a posteriori*. On the contrary, Uexküll's view of speciation is much more teleological: he believes that nature is characterised by a pervasive harmony between organisms and their environments, thus also between different species or organisms.[131] In this framework, the relationships between organisms in their environments appear largely (if not completely) static and pre-determined.[132] Specifically,

---

[126] See the 'Theory of Meaning' in Uexküll, *Foray*.
[127] Jakob von Uexküll, *Theoretical Biology*, London: Kegan Paul, Tench, Trubner, 1926, p. 2.
[128] Brett Buchanan, *Onto-Ethologies: The Animal Environments of Uexküll, Heidegger, Merleau-Ponty, and Deleuze*, New York: SUNY Press, 2008, p. 25.
[129] Jonathan Beever and Morten Tønnessen, '"Darwin und die englische Moral": The Moral Consequences of Uexküll's Umwelt Theory', *Biosemiotics*, vol. 6 (2013), pp. 437–47.
[130] Buytendijk, *L'Homme et l'Animal*, p. 41.
[131] See Dragos Cuicu, 'La téléologie cachée dans la pensée biologique d'Uexküll', *Revue de Métaphysique et de Morale*, no. 101 (2019), pp. 91–100.
[132] See Morten Tønnessen, 'Umwelt Transitions: Uexküll and Environmental Change', *Biosemiotics*, 2 (2009), pp. 47–64.

Uexküll disagrees with the Darwinian theory of gradual adaptation [*Anpassung*] through natural selection and prefers a notion of ontological, predetermined adaptation to the environment [*Einpassung*].[133]

The building plan of the animal, then, is dependent on a 'conformity to the plan' [*Planmäßigkeit*] of nature, a supra-mechanical law which is thought to be nonmaterial.[134] For this reason, the subjective dimension in the relation of the organism to its environment is itself subsumed under *Planmäßigkeit*. This means that the animal's behaviour is not exactly spontaneous or intentional but teleologically programmed. Whereas Kantian idealism's *a priori*, or transcendentalism, is anchored in the capacities of the human mind, Uexküll's conception argues for a natural teleology in which the principle of one's action comes from a law of nature.

In his *Theoretical Biology*, Uexküll therefore develops a 'Theory of Meaning', in which he argues that the harmony between organisms and their environments, or between different organisms – such as the fly and the spider's web, or the orchid and the wasp – comes from pre-determined counterpoints. This means that each one of an organism's predicates or artefactual productions (such as the web, the nest, etc.) corresponds to a predicate found in another organism or its productions. According to Uexküll, the spider's web – if not the spider itself – is 'fly-like'.[135] In *Umwelt und Innenwelt der Tiere*, Uexküll already explained that '[t]he Bauplan of every living entity is not only expressed in the structure of its body, but also in the relationships between the body and the world surrounding it'.[136]

This notion of a harmony between body and world is extended through a musical metaphor: the melody. As Elizabeth Grosz notes, quoting Uexküll, 'the living body […] functions as an instrument in a larger orchestra: it is not the body that produces harmony, it is the "harmony of the performance that determines that of the body"'.[137] When we say that the subject plays a harmonious symphony with its environment by playing notes (or tones) with its body, this is true only inasmuch as the music score is already predetermined into the organism: 'every organism is a melody that sings itself'.[138] The active component is not so much a form of improvisation or score-writing. Instead, it consists of playing the body's song by following

[133] See Jakob von Uexküll, *Bausteine zu einer biologischen Weltanschauung*. Munich: Bruckmann, 1913, p. 20; Francesca Michelini, 'Introduction: A Foray into Uexküll's Heritage' in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, London and New York: Routledge, 2020, p. 6.
[134] Gottfried Schnödl and Florian Sprenger, *Uexküll's Surroundings: Umwelt Theory and Right-Wing Thought*, Lüneberg: Meson Press, 2021, pp. 123–4.
[135] Uexküll, *Foray*, p. 190.
[136] Uexküll, cited in Schnödl and Sprenger, *Uexküll's Surroundings*, p. 133.
[137] Grosz, *Becoming Undone*, p. 178.
[138] Florence Burgat, *Une autre existence. La condition animale*, Paris: Albin Michel, 2012, p. 192. I translated this and all later citations of this reference from French.

its specific notes and rhythms in relation to the environment. This prompts Grosz to suggest that 'the living organism […] has in a sense already synthesized its environment or Umwelt'.[139]

Here, Uexküll's musical metaphor positions Umwelt theory in the territory of *Gestalt* psychology and structuralism, where figure and background are thought together, and where 'the whole is greater than the sum of the parts', as the famous saying goes. And indeed, in music, the melody is more than a series of notes. Because the melody can be played in another tonality or key without losing its identity, what matters is the relation of proximity and distance between the notes. When you listen to a melody, each note feels connected to the previous one and to the next by a certain relation, in such a way that the whole is really a structure defined by its overall form. In the biological context, this means that the harmony achieved between organisms and their environments cannot be reduced to the sum of individual acts made by the animals but is a structured field of relations.

Following Uexküll, Viktor von Weizsäcker reframes the functional circle as a 'circle of form' [*Gestaltkreis*], which he defines through the idea that 'the biological phenomenon cannot be explained by a causal series of functions that produce it – it is an element in an act that forms the whole.'[140] Weizsäcker thus insists on the creative agency of animals, who perform acts of improvisation in their relationship with the environment. This reading of Uexküll, more open and less teleological, prevails in most twentieth-century philosophical readings of Uexküll, such as Canguilhem's, Merleau-Ponty's or Deleuze and Guattari's. This is also the one that Florence Burgat puts forward when she suggests that 'the plan of nature is in no way superimposable on any kind of finalism in nature; rather, it acts as an ordering transcendence or structure. When individuals act according to a goal, as is the case for man [*sic*] and at least for all mammals, their actions are no less subordinate to the general plan of nature'.[141]

Here, Burgat is hinting at the difference between two forms of teleology. While teleology is often understood as goal-directedness or purposiveness [*Zweckmäßigkeit*], in an Aristotelian, Lamarckian, or Drieschean sense, the teleology enacted by Uexküll's thinking refers to conformity to a plan [*Planmäßigkeit*].[142] It is not so much that animals *strive* to enact the plan of nature, but that their behaviours rely on and perform a melody already embedded in their blueprint [*Bauplan*] by the plan of nature, just like a music score. This is why the attribution of meaning to specific perceptual cues by animals does not follow from a psychological process or a striving-toward, but from an overarching plan of nature. The latter thus orientates action without entirely determining it. The subsequent conception of subjectivity in Umwelt theory is

[139] Grosz, *Becoming Undone*, p. 178.
[140] Victor von Weizsäcker, *Der Gestaltkreis. Theorie der Einheit von Wahrnehmen und Bewegen*, Leipzig: Thieme Verlag, 1940, cited in Burgat, *Une autre existence*, p. 132.
[141] *Ibid*., pp. 224–5.
[142] Brentari, *Jakob von Uexküll*, p. 237.

necessarily much more limited: 'to be a subject means, namely, the continuous control of a framework by an autonomous rule'.[143]

This rather minimal conception of subjectivity suited behaviourists – and is sometimes described as behaviourist itself[144] – who deemed it similar to their own mechanistic and reductionist account of subjectivity (see Chapter 6). Uexküll's views, as we saw, align more closely with holism and constitute a blend of organicism and vitalism. Moreover, whereas behaviourists understand behaviour as learned through conditioning and enacted through interaction with one's environment, Uexküll's understanding of behaviour is much more fixed and teleological, albeit in the sense of *Planmäßigkeit* rather than *Zweckmäßigkeit*.

As noted in this chapter's introduction, the teleological (predetermined and necessarily harmonious) dimension of Umwelt theory is quite ambivalent. According to Uexküll, the Umwelten of animals are at once harmonious with each other *and* specific to each species or even to each organism. Animals form a village – a harmony – together, but they do so by remaining deeply and eternally trapped in their own Umwelten and unable to see beyond their respective horizon: each Umwelt is 'a village of one'. This ambivalence makes for a rather monadic epistemology in Umwelt theory.[145]

It is this component of Umwelt theory that has posed most theoretical and epistemological problems, first in Uexküll's time, then in more recent commentaries on his work. Because each species, and in some cases, each individual, has its own closed-off and harmonious Umwelt, one is led to wonder: how could Umwelten ever communicate or interact with one another? How could an animal learn new things or adapt to a changing environment? More problematically: how could humans ever know anything about the worlds of animals? Gottfried Schnödl and Florian Sprenger, commenting on the work of Maximilian Haas, remind us that 'what Uexküll "biologically demands" (namely taking the perspective of the animals), he at the same time "epistemologically precludes" (through the monadic closing off of not only animal Umwelten, but also the Umwelt of the researcher), and assumes that this "gap [...] cannot be logically closed"'.[146]

Consequently, Uexküll's ontological commitments result in epistemological problems for Umwelt theory. Indeed, the theoretical focus on harmony, based on a static conception of nature, translates, in Uexküll's epistemology, into the study of organisms in their 'normal'

[143] Uexküll, *Theoretical Biology*, p. 223.
[144] See Didier Samain, 'Le béhaviorisme sémiotique de Jakob von Uexküll', *Histoire Épistémologie Langage*, vol. 43, no. 2 (2021).
[145] Although it is unlikely that Uexküll knew of Leibniz's monadology, his students noted a conceptual proximity. See Schnödl and Sprenger, *Uexküll's Surroundings*, p. 112.
[146] Schnödl and Sprenger, *Uexküll's Surroundings*, p. 114.

environments, rather than in artificial or disturbed ones. In his chapter on the intellectual history of Jakob von Uexküll, Juan Manuel Heredia provides interesting insight on the matter:

> Uexküll argues that it is not possible to adequately research the Umwelten of terrestrial and aerial animals in artificial spaces such as zoos, where "expatriated animals within their cages, in a foreign air and soil, seem more like ghosts than living beings" (Uexküll, 1913, p. 110, my transl.) and states that, on the contrary, aquariums offer excellent conditions to be able to advance in this study because in them it is possible to reconstruct the Umwelten of aquatic animals "without loss of their vital conditions" and "without it becoming a prison" (Uexküll, 1913, p. 110, my transl.).[147]

Understandably, Uexküll considers 'natural' environments the best places to research the normal functionality of Umwelten, because this is where the subject's 'vital conditions', its blueprint and its conformity to the plan of nature are observable and evidenced. There, it seems that 'according to Uexküll, the variation potentiality in these types of actions, and the possibility of generating differential forms of behavior, is a purely individual phenomenon and does not modify the transcendental conditions of the species'.[148] Yet if the artificial or degraded environment is one in which the pre-existing harmony does not turn into the right melody, what kind of Umwelt is performed? How can one describe the biological processes that lead to the Umwelt becoming a prison? As we see in this example, the experiences animals make in artificial situations like zoo cages amount to disorder, madness, or trauma, experiences which could and should be accounted for by Umwelt thinking, but which it most often keeps out of the picture.

Monadism and harmony, as with all things in Umwelt theory, are not absolute principles. Indeed, beyond his seemingly static conception of nature, Uexküll offers a historically important counterexample, that of the blind human and their guide dog.[149] Through research on methods for training dogs to become sensitive to the blind person's Umwelt, Uexküll acknowledges an ability, in certain species and through specific training methods, to acquire a new 'special work Umwelt' besides the 'species-specific one'.[150] This double Umwelt situation is explained by the fact that '[o]bjects carry different meanings in those two [and o]ne very special signal marks the passage from one into the other – the attaching or removal of the harness (or the carriage)'.[151] Still, according to Riin Magnus, to stimulate the dog's disposition [*Stimmung*] to transition from the species-specific Umwelt to the work Umwelt, it is helpful to

---

[147] Juan Manuel Heredia, 'Jakob von Uexküll, an Intellectual History' in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, London and New York: Routledge, 2020, p. 29.
[148] *Ibid*., n. 9.
[149] Uexküll, *Foray*, pp. 99–101.
[150] Riin Magnus, 'Training Guide Dogs of the Blind with the Phantom Man Method: Historic Background and Semiotic Footing', *Semiotica*, vol. 198 (2014), p. 197.
[151] *Ibid*.

satisfy their physiological needs beforehand. As one sees, not only is there such a thing as a blind human Umwelt that differs from the typical sighted human Umwelt, but a nonhuman individual can also acquire the former's Umwelt even though it originally lacks meaning for them.

While harmony, stability, and normality are core components of Umwelt theory, Uexküll's research accounted for situations of Umwelt mutations and conflicting meaning relations.[152] Considering Umwelt theory's (albeit marginal) ability to account for Umwelt changes, disharmony may thus be understood as a temporary state in between processes of harmonisation. However, following Ezequiel Di Paolo's comments on the future of Uexküllian studies and Umwelt theory, 'we must also see that "harmony", if and when it is the case, is precarious, conflictive, and always changing'.[153] Surely, the emphasis on harmony distances Umwelt theory from operations of flat ontology and mechanism – a danger that is still very clear today, including in posthumanist philosophy. But this very emphasis brings other kinds of risks. Through the theme of harmony and the theory of counterpoints, 'what is excluded [...] are the precarious conditions and the ongoing, effortful processes by which meaning is achieved whatever the timescale, whether evolutionary, developmental, or behavioral'.[154] Even in its forays into the changing worlds of disabled humans and their animal partners, Umwelt theory maintains a general belief in harmony as the driving force behind Umwelt-making:

> For it is the ongoing risk and precarious conditions that tend to *dis*harmony and the dissipation of metastable relations that drive the ongoing struggle for sense-making. Otherwise, meaning would be superfluous; it would all boil down to letting self-organizing systems relax into their ultimate attractor states. Nothing would even need to be achieved by living beings – a game with no stakes.[155]

As I hope is becoming clear, the issue with dis/harmony in Umwelt theory lies in its assumption that Umwelten are predetermined in monadic ways at the species level. The Umwelt is a closed world, and Uexküll, who likes to illustrate his theories with metaphors, alternatively describes the Umwelt as a *soap bubble* and as a *tunnel* with no way in or out. This is precisely what Winthrop-Young and Espahangizi have in mind when they observe 'near-autistic solitude' in animals and 'epistemological autism' in Umwelt theory.

---

[152] Uexküll, *Foray*, pp. 176–7.
[153] Ezequiel Di Paolo, 'Afterword: A Future for Jakob von Uexküll', in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, London and New York: Routledge, 2020, p. 254.
[154] *Ibid*.
[155] *Ibid*.

2. Parasitic Readings of Uexküll in Twentieth-Century French and German Philosophies

In his work, Maurice Merleau-Ponty draws on Uexküll on various occasions. During his lessons on *Nature* at the Collège de France (1956-1960), he sets out to think about the behaviour of animals alongside the constitution of their organisms. He states that 'the notion of Umwelt is destined to join what we usually separate: the activity that creates the organs and the activity of behavior'.[156] Here, Merleau-Ponty embraces the transcendentalism of Umwelt theory (i.e. *Planmäßigkeit*), suggesting a deep interrelation between speciation and the actions performed by specific animals in given situations. When he talks of an 'essence of [the] species',[157] this is not to embrace a form of sheer biological determinism or reductionism, but rather to anchor behaviour into a structure that is, at least in some way, orientated by an organism's constitution.

While there is a link between Umwelt theory and structuralism, as I noted above, Merleau-Ponty's reading of Uexküll seems to take the Umwelt in new directions. Indeed, Merleau-Ponty is known for having reframed the concept of behaviour, shifting from a mechanistic and behaviourist understanding to a structuralist, open one (more in chapter 6).[158] While both Uexküll's and Merleau-Ponty's understandings of behaviour make space for specificity, Uexküll's plan teleology leaves little room for contingency and spontaneity. On the contrary, in Merleau-Ponty's reading, one finds the idea that from the simplest animals to the more complex, there are different forms of Umwelten, which are more or less open, an idea also found in Agamben.[159] So-called 'inferior animals' are thought to act mostly through instincts, following their organism's structure, whereas in 'superior animals', and especially in humans, there is an alleged ability to create a different meaning for nature. This anthropocentrism, though it evokes Uexküll's description of the human physicist or chemist's Umwelt, represents a new interpretation of Umwelt theory. Merleau-Ponty acknowledges, with Uexküll, that '[b]etween the exterior world and the living organism, there is an insertion of a whole that orders, coordinates, and interprets: the nervous system is a mirror of the world'.[160] However, their focus on the openness of the human's Umwelt prompts Merleau-Ponty and Agamben to describe an openness in Umwelt theory itself, which may not reflect Uexküll's own interest and ideas. Indeed, this additional step, far from revealing a form of determinism

[156] Maurice Merleau-Ponty, *Nature: Course Notes from the Collège de France*, Evanston: Northwestern University Press, 2003, p. 173.
[157] *Ibid*., p. 175.
[158] See Maurice Merleau-Ponty, *The Structure of Behavior*, Boston: Beacon Press, 1963.
[159] See Giorgio Agamben, *The Open: Man and Animal*, Stanford: Stanford University Press, 2004.
[160] Merleau-Ponty, *Nature*, p. 171.

and fixism, opens the possibility of conscious subjectivity (though only for humans), an idea which Uexküll was usually not so interested in.

For instance, Uexküll's metaphor of the melody is understood by Merleau-Ponty as a structure or *Gestalt* that haunts the organism's 'style of behavior'[161] but does not overdetermine individual behaviours, as there is play, or leeway, in it. When harmony makes its way into Merleau-Ponty's later writings on the ontology of the flesh of the world, we observe a discussion of the entwinement of bodies and species through notions such as interanimality, which rely on a phenomenological understanding that is not present as such in Uexküll.

Arguably, Merleau-Ponty goes a step further than Uexküll's minimal understanding of subjectivity. When he suggests that 'Uexküll anticipates the notion of behaviour',[162] he points to the biologist's influence on the development of behaviourism at the same time as he seems to attribute to Uexküll the origins of his own contribution. Though it is undeniable that Uexküll was influential on Merleau-Ponty's work on behaviour, it appears that the openness he, along with Agamben, observes in Uexküll, is the product of a parasitic reading which, in turn, opens Umwelt theory to new uses and interpretations.

Precisely, Merleau-Ponty assumes a version of *Planmäßigkeit* that is more open to contingency than Uexküll's, which is why his work aligns more directly with ecological and posthumanist thinking. Yet by reading Uexküll parasitically – again, a standard practice in philosophy – Merleau-Ponty contributed to a very positive reception of Umwelt theory in French philosophy and made it available for further developments under an anti-anthropocentric, if not also a posthumanist label.

The same can be said of Gilles Deleuze and Félix Guattari, whose reading of Uexküll takes Umwelt theory even further. Indeed, the French thinkers do not really mention Umwelt theory in their work, as Brett Buchanan notes: 'It is not thematized as such. It is as if they purposely eschew a discussion of the most obvious aspect of Uexküll's thought: his theory of the *Umwelt*.'[163] Instead, they focus on the female tick to advance an ontology of affects as virtual intensities. As a reminder, Uexküll explains that after mating, the female tick searches for a warm-blooded animal. At once deaf and blind, she perceives only three perceptual marks: the light of the sun signals her the way to the top of a twig or branch; the smell of butyric acid from a mammal's sweat gives her the cue to leap onto her prey; finally, when sensing a hairless and warm spot of skin, the tick knows she can bury her head onto the animal's tissue and drink their blood. Having had her last meal, the tick lets herself 'fall to the ground, lay its eggs, and die'.[164]

---

[161] *Ibid*., p. 192.
[162] *Ibid*., p. 167.
[163] Buchanan, *Onto-Ethologies*, p. 177.
[164] Uexküll, *Foray*, p. 45.

Interestingly, the example of the tick is found in many commentaries on Umwelt theory in continental philosophy across the twentieth century, including in Deleuze and Guattari's *A Thousand Plateaus*. Both thinkers suggest that rather than three stimuli determining the nature of the tick and her behaviour, three *affects* are at stake.[165] They contend that what matters is less the structural nature of the organism and its morphology than the affects themselves and how they participate in the becomings of the bodies and their relationships. In this sense, Deleuze and Guattari take a dim view of the concept of the organism. They also reject the phenomenological notion of a world of meaning constituted by a centralised and unified subject. The female tick, a parasite feeding on the host animal, thus becomes an example of their ontology: she helps them suggest that what matters is to count affects.[166]

Moreover, just like Merleau-Ponty, Deleuze and Guattari were seduced by Uexküll's metaphor of the melody and his theory of biological counterpoints. Just like the spider's web is ideally shaped to catch the fly, the orchid's form is ideal to attract the wasp. For Uexküll, this is proof of the predetermined harmony of nature, but for Deleuze and Guattari, this is rather an example of the becoming-fly of the spider and the becoming-wasp of the orchid. What was a transcendental, fixed, and holistic theory becomes an ontology of becomings, which further contributes to shaping Umwelt theory as compatible with posthumanist views. This reading, contrary to Merleau-Ponty's, does not claim to align with Uexküll, and Deleuze and Guattari seem more open about the parasitic genealogy they propose here.

Indeed, Deleuze and Guattari's understanding of affects and becomings is not cohesive with Uexküll's understanding of the Umwelt as a soap bubble or tunnel, which is monadic, static, and predetermined. In their theory, the tunnel is open on both sides – better yet, it is a crossroads, or a rhizome. In this way, Brett Buchanan notes that

> In comparison to Heidegger and Merleau-Ponty, Deleuze and Guattari show little interest in the environmental world of animals. This may seem questionable in light of their discussions of nature, milieus, and, as we have still to see, territories. Yet these conceptualizations have less to do with an environmental space-time within which an organism lives than with how beings enter into various relations with other things. It is the constitution of new planes, in other words, rather than in what an organism is or is not open to, that is ontologically decisive for them.[167]

While Deleuze and Guattari's own endeavour is clearly different from Uexküll's, the fact that they use his thinking without commenting on the more problematic aspects of Umwelt theory may prompt the reader to assume a form of compatibility, if not even of lineage, between the

---

[165] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, Minneapolis and London: University of Minnesota Press, 1987, p. 257.
[166] *Ibid*.
[167] Buchanan, *Onto-Ethologies*, p. 177.

two perspectives. Considering the centrality of Deleuzo-Guattarian philosophy for posthumanist thinking to this day, it could be argued that *A Thousand Plateaus* enacts a parasitic reading of Uexküll while contributing to its positive reception and perception in French philosophy from the twentieth century to today.[168]

French philosophy is not alone in discussing Uexküll's thought. Umwelt theory was also highly influential in twentieth-century German philosophy, even though one of the philosophical movements it inspired, philosophical anthropology, has since been widely associated with right-wing ideologies and discarded in favour of more anti-hegemonic movements, such as the Frankfurt school of critical theory (see Chapter 3). A critic of the sciences, Martin Heidegger was one of many readers of Uexküll at the time. With his work on the phenomenology of being-in-the-world, he offered a metaphysical hierarchisation of living beings which can be described as humanist: because they are ontologically separated from the world, humans can encounter it as a totality, if not also (re)constitute it through intentionality. On the contrary, Heidegger argues that animals – among which he chooses the bee as a representative – are 'poor in world': they are supposedly absorbed in their environment and completely taken or captivated by it, instead of *opening* to it.[169] Here, Heidegger seems to draw on Uexküll's monadological understanding of the Umwelt, though he reserves the monad for nonhuman animals. In doing so, he offers a phenomenological investigation of worldmaking based on the concept of *Dasein* – which some propose could be extended to encompass both human and nonhuman forms[170] – while taking Umwelt theory in a new direction, marked by hierarchisation.

3. Genealogies of Umwelt Theory as Proto-Posthumanism and Conservative Political Biology

More recently, Uexküll's thinking has undergone a revival in academic scholarship. His interest in the diversity of animal ways of being, indeed fairly anti-anthropocentric, has made him a popular figure in ecological and posthumanist discourse. The very title of Uexküll's most famous text, *A Foray into the Worlds of Animals and Humans*, bears testimony to this desire to

[168] For a positive interpretation of Uexküll in contemporary animal philosophy, see, for instance, Florence Burgat, *Liberté et inquiétude de la vie animale*, Paris: Kimé, 2006, pp. 221–42.
[169] Martin Heidegger, *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, Bloomington: Indiana University Press, 1995, p. 184.
[170] See Christiane Bailey, 'The Genesis of Existentials in Animal Life: Heidegger's Appropriation of Aristotle's Ontology of Life', *Heidegger Circle Proceedings*, vol. 45 (2011), pp. 199–212.

venture into other worlds and echoes the current calls to renewed attention to the lives of nonhumans.

In this context, Uexküll has sometimes been described as a posthumanist thinker *avant la lettre* and a biologist whose work might be largely compatible with posthumanist perspectives. As I have mentioned above, Geoffrey Winthrop-Young describes Umwelt theory as 'a village of one' in his afterword to the English edition of the *Foray*.[171] He emphasises that, in Umwelt theory, 'many paths intersect',[172] from continental philosophy (Leibniz, Spinoza, Deleuze and Guattari) to semiotics (Peirce, Sebeok), to second-order cybernetics (Maturana and Luhmann), to post-Darwinian evolutionary theory… to posthumanism. He indeed explains that Uexküll 'depicted a honeycombed multitude of species-specific Umwelten, but he did not offset the demotion of the human bubble by arguing for its innate superiority—and this moves him into the orbit of posthumanist theory'.[173] More assertively, Jussi Parikka argues that '[i]n a *radical posthumanist* way, Uexküll never got tired of accentuating that so far we have approached the world through our human, oh-so-human lenses but that there is a panorama of perceptions and ways of approaching the world that are closed to us humans but continuously lived by other life forms.'[174] As we see, Uexküll's gesture of anthropodecentring and his curiosity 'about the diversity of worlds on Earth',[175] beyond hierarchy, prompts some to position his *Umweltlehre* within posthuman territory.

Similarly, feminist philosopher Elizabeth Grosz offers a posthumanist reading of Uexküll in *Becoming Undone: Darwinian Reflections on Life, Politics, and Art*, in which she suggests that while it is a 'difficult positio[n] to maintain [Uexküll's Kantianism] opens his position up to a *perspectivism* that could well abandon the concept of the noumenal altogether with no conceptual loss, which thus opens his claims to a less Kantian and more Nietzschean reading'.[176] Through the notion of perspectivism, Grosz argues that in defining the world mainly – or perhaps solely – through the lived worlds [*Umwelten*] of animal subjects, Uexküll could break free from his Kantianism and align with a genealogy of proto-posthumanism opened by Nietzsche.

Earlier in the book, Grosz goes so far as to suggest that in arguing that 'the most elementary forms of mobile life, animal existence from the protozoa upward, exhibit an incipient freedom in some of their most significant actions [Henri] Bergson anticipates the work

[171] Winthrop-Young, 'Afterword', p. 242.
[172] *Ibid*.
[173] *Ibid*., p. 243.
[174] Jussi Parikka, *Insect Media: An Archeology of Animals and Technology*, Minneapolis and London: University of Minnesota Press, 2010, p. 66, emphasis mine.
[175] Ginn, 'Jakob von Uexküll Beyond Bubble', p. 13.
[176] Grosz, *Becoming Undone*, pp. 235–6, emphasis mine.

of some theoretical biologists' like Uexküll.[177] In tracing a different hermeneutic genealogy for Umwelt theory from Nietzsche to Deleuze and Guattari by way of Bergson, Grosz de- and reterritorialises Uexküll from the traditional modern-humanist lineage to proto-posthumanism.

Focusing on another aspect of Umwelt theory, Brian McCormack offers a posthumanist reading of Uexküll's theory of meaning, arguing that the process of meaning-making is dynamic and contingent, breaking with Uexküll's teleological onto-epistemology.[178] In doing so, McCormack does not so much suggest that Umwelt theory was posthumanist from the start as he bypasses Uexküll's transcendental ontology altogether.

In her paper on 'The Concept of *Umwelt* and its Potentials for an Anthropology Beyond the Human', Sara Asu Schroer examines the concept's 'relevance for contemporary thought in anthropology that seeks to move beyond the human to embrace more-than-human world making and multispecies perspectives'.[179] She notes the 'possible problems and limitations' of Uexküll's argument and acknowledges that '[t]he Uexküllian idea of a multiplicity of subjective worlds, understood as spheres encircling individual organisms, was part of a longer history of German romantic and nationalist thought.'[180] With Schroer, we may wonder whether acknowledging the diversity of biological perspectives necessarily makes for more fair and desirable politics.

Schroer's contribution is significant because it brings Uexküll's political orientations back into the equation. Uexküll was indeed of aristocratic descent, and he adopted a conservative worldview. In this light, Winthrop-Young offers a list of problematic aspects in Uexküll's political views: his hierarchisation of nations and regions, his belief in traditional gender norms and family values, and his adherence to an aristocratic, elitist approach to the division of labour.[181] Following Schroer's nuanced examination of Uexküll, I suggest that what is at stake in contemporary readings of Uexküll is not simply whether Umwelt theory can be aligned with posthumanism (or whether it is already posthumanist from the start). Rather, what is at stake is to examine what it means to use Umwelt theory to advance posthumanist philosophy today given the sinister uses it has lent itself to in Uexküll's political biology and twentieth-century Germany at large. Can we simply hijack Umwelt theory without acknowledging Uexküll's conservatism and his capitalist leanings? Is mentioning these

[177] *Ibid*., p. 69.
[178] See Brian McCormack, 'Life as Performance: Jakob von Uexküll, Hermit Crabs and Meaning as Dynamic Process', *Interconnections: Journal of Posthumanism*, vol. 1, no. 1 (2021), pp. 8–25.
[179] Sara Asu Schroer, 'Jakob von Uexküll: The Concept of *Umwelt* and Its Potentials for an Anthropology Beyond the Human', *Ethnos*, vol. 86, no. 1 (2019), abstract.
[180] *Ibid*., n. 8.
[181] Winthrop-Young, 'Afterword', pp. 223–5.

political orientations enough to make a response-able use of the theory, or is Uexküll's conservatism ingrained in deeper ways into the conceptual fabric of the *Umweltlehre*?[182]

This problem has received various, sometimes opposed responses from recent commentators on Umwelt theory. Many readily note Uexküll's personal views on politics but suggest there is a gap between his theories and his politics, and/or that the theories can be developed or reclaimed without risking detrimental effects on the political scale. This is true of Morten Tønnessen, Carlo Brentari, Sara Asu Schroer, among others. For instance, Beever and Tønnessen observe that 'Uexküll's rhetoric […] often [seems] anti-democratic and openly racist to the contemporary reader' but maintain that it is Uexküll's ethics and not his biological theories that are at fault.[183] Indeed, they offer a 'caveat emptor', warning us against misguided *applications* of Umwelt theory to cultural and social matters. Uexküll did use racist and antisemitic tropes to describe Black and Jewish people – such as the image of the 'ruthless, state-destroying parasites'[184] – but Beever and Tønnessen interrogate the notion that 'such extension is consistent with [Uexküll's] biological theory' in the first place.[185] According to them, there is indeed an inconsistency between Uexküll's aristocratism and his rejection of a hierarchy of Umwelten, which prompts them to caution readers against uncritically turning biological findings into normative judgements.

Acknowledging this inconsistency, Winthrop-Young notes that for many, Uexküll's political biology seems 'too dumb to be dangerous'. It is regrettable that this commentary, which might already appear to minimise the risks inherent to Uexküll's commitment to various systems of oppression (capitalism, racism, coloniality, patriarchy, etc.) relies on ableist and pathologising language and in turn reproduces dominant logics, particularly ableism. Similarly, many commentators have emphasised Umwelt theory's role in fostering conservative or reactionary biopolitics and ideologies, but insist that these developments are tangential, or, so to speak, parasitic.[186] Schroer, for instance, suggests that Uexküll's concept of the Umwelt – at least partly – inspired the fascist 'blood and soil' ideology, even when it is clear that Uexküll himself never embraced that ideology.[187] These same commentators have thus suggested that there is a break between Uexküll's biological findings – what they call the 'light' side of Umwelt theory – and his ethico-political views – its 'dark' side. It is significant that the very analyses that minimise Uexküll's contribution to racist thought rely on a metaphor with racist

[182] See Haraway, *Staying with the Trouble*, for a posthumanist conception of responsibility as 'response-ability.'
[183] Beever and Tønnessen, '"Darwin und die englische Moral"', p. 4.
[184] Anne Harrington, *Reenchanted Science: Holism in German Culture from Wilhelm II to Hitler*, Princeton: Princeton University Press, 1999, p. 62.
[185] Beever and Tønnessen, '"Darwin und die englische Moral"', p. 5.
[186] See Roberto Esposito, *Bios: Biopolitics and Philosophy*, Minneapolis and London: University of Minnesota Press, 2008; Harrington, *Reenchanted Science*; Marco Stella, and Karel Kleisner, 'Uexküllian Umwelt as Science and as Ideology: The Light and the Dark Side of a Concept', *Theoretical Biology*, 129 (2010), pp. 39–51.
[187] Schroer, 'Jakob von Uexküll: The Concept of Umwelt'.

and colonial baggage. In this way, recent uses of Uexküll might not so successfully resist the kind of political order that Uexküll endorsed, even when they claim no continuity on that end.

Others, like Schnödl and Sprenger therefore remain unconvinced by the efforts to recast Uexküll's conservatism (particularly his racism, classism, and sexism) as a 'curious episode' in the life of a 'very sober scientist'[188] or as disconnected from his biological theories. In *Uexküll's Surroundings: Umwelt Theory and Right-Wing Thought*, they re-examine Uexküll's engagement with Nazism and the role that ecology played in the development of a neo-romantic form of right-wing political theory in Europe, particularly in twentieth-century Germany. They explain that

> [a]t first glance, the rhetoric of "parasites" does not accord with the equality of Umwelten in Umwelt theory. Yet this dissonance is something that should draw our attention. Uexküll does present all Umwelten as equal, but it is precisely because they have their place in the organic whole according to the principle of *Planmäßigkeit* that they must not mix. Whatever does not belong in the place of German Umwelten—that is to say, in the Umgebung encompassing this Umwelt—must disappear lest it endanger the order of the state.[189]

According to them, the blend of plan teleology with organicism in Umwelt theory makes for a rather problematic view of society, or rather of the state, conceived as an organism with well-defined boundaries. In this view, the irruption of so-called 'placeless Jews' in the German state functions as a contamination of the German Umwelt and a parasitic hold on its economic system. Moreover, Uexküll initially 'welcomed the appointment of Hitler as chancellor'[190] and initially expressed content with 'Adolf Hitler and his movement',[191] which he believed would save the German state from complete fragmentation by communism and democracy.[192] Moreover, Uexküll was a longtime friend of Houston Stewart Chamberlain,[193] a major contributor to Nazi thinking, and even wrote the foreword to his *Natur und Leben*.[194]

However, some suggest that Uexküll's trust in National Socialism was very short-lived. Drawing on situations of 'frictions [between Uexküll and] the Nazi regime', Carlo Brentari indeed suggests that Uexküll had turned away from Nazism after Hitler's rise to power.[195] He recalls the story of a conference given by Uexküll on the olfactory component of dogs' Umwelt, which had upset Joseph Goebbels, then Minister of Propaganda in Nazi Germany, because of

---

[188] Agamben, *The Open*, p. 43.
[189] Schnödl and Sprenger, *Uexküll's Surroundings*, p. 56.
[190] Brentari, *Jakob von Uexküll*, p. 38.
[191] Jakob von Uexküll, *Staatsbiologie*, Hamburg: Hanseatische Verlagsanstalt, 1933, p. 71, cited in Brentari, *Jakob von Uexküll*, p. 38.
[192] Brentari, *Jakob von Uexküll*, p. 38; Winthrop-Young, 'Afterword', pp. 226–7.
[193] Schnödl and Sprenger, *Uexküll's Surroundings*, p. 15; Winthrop-Young, 'Afterword', p. 229.
[194] Brentari, *Jakob von Uexküll*, p. 31.
[195] *Ibid*., pp. 38–43.

its lack of relevance for the elaboration of a Nazi science of racial hygiene. In another passage, Brentari mentions a letter Uexküll had written to the widow of his late friend Chamberlain, urging her to convince Hitler to put a stop to the expulsion of Jewish thinkers (such as Ernst Cassirer) from the German academy. In the words of Brentari, '[t]his letter remained unanswered', and Uexküll soon became a target of the Nazi party, one of his books even being censored.[196]

Now, this historical interpretation of Uexküll's relationship with Nazi Germany is contested, and Schnödl and Sprenger argue that Brentari's view is quite simply 'mistaken'.[197] Admittedly, both authors acknowledge that

> [l]ike so many other leading figures in the Conservative Revolution, Uexküll also seems to have hoped for something else from Nazism: as an aristocrat, he was skeptical of populist mass movements from the very start, and he rejected both eugenics and the Nazi concept of race because of what he considered to be their Darwinism.[198]

Nonetheless, their book examines 'newly published archival materials on [Uexküll's] role in the Committee for Legal Philosophy at the Academy for German Law (which was deeply anchored in Nazism)'.[199] They suggest that the 'reports of Uexküll's alleged acts of resistance in 1933, as claimed by his wife and her subsequent readers, have turned out to be historical revisionism downplaying his involvement.'[200] They conclude from this that Uexküll's distance from Nazi ideology and his rejection by party officials 'did not prevent him from being actively and institutionally involved in elaborating a Nazi legal philosophy for a "total state" that was conceived in organic terms and derived from his Umwelt theory'.[201]

Moreover, Schnödl and Sprenger's historical re-reading of Uexküll's life is complemented by a theoretical re-interpretation of Umwelt theory. Contrary to the hypothesis of a break between 'a forward-thinking side and a problematic side',[202] they argue that the biological arguments of Uexküll cannot be separated from his political beliefs. According to them, both sides were developed and articulated upon a 'structural conservatism'[203] which pervades the whole of Uexküll's life, from his political engagement to his theoretical biology (through anti-Darwinism and the concept of *Planmäßigkeit*). Based on this observation,

---

[196] *Ibid*., p. 41.
[197] Schnödl and Sprenger, *Uexküll's Surroundings*, p. 16.
[198] *Ibid*., p. 50.
[199] *Ibid*., p. 16.
[200] *Ibid*.
[201] *Ibid*., p. 50
[202] *Ibid*., p. 16.
[203] *Ibid*., pp. 12, 17, 42, 68, 90, 220, 226, 227, 229.

contemporary texts have called for more caution in using Umwelt theory, especially in the 'more-than-human' literature where Uexküll is often portrayed as a forefather.[204]

On the other hand, not all readers of Schnödl and Sprenger are convinced by their demonstration. Tim Elmo Feiten, for instance, suggests that the evidence brought forth by their examination of the new archival materials in *Uexküll's Surroundings* 'matches what was already known'.[205] Moreover, he argues that the authors' 'overarching claims [are] not sufficiently supported by the arguments and evidence they present'. Indeed, if it is true that 'Uexküll's biology is always political, his *Umwelt* theory always a worldview',[206] and a totalitarian one at that, like the two authors suggest, all scholarship drawing from Umwelt theory should bear traces of totalitarianism.[207] Using a counterexample, Feiten maintains that some 'contemporary papers employing the concept of *Umwelt* in biology or cognitive science […] do not contain any noticeable totalitarian politics, [which means they] have successfully separated the concept of *Umwelt* from Uexküll's totalitarianism'.[208]

Feiten's argument, it seems to me, fails to really dispel the trouble with Uexküll's politics. It is not necessary, indeed, for any of Uexküll's readers to support totalitarian politics to potentially reproduce his racism, classism, and sexism. At the very least, by minimising these political orientations, we might risk not giving ourselves the tools to properly address them and resist them in our readings of Uexküll. Moreover, Feiten's emphasis on totalitarianism might be misleading, for it presupposes a disconnect between diffuse forms of racism, classism, and sexism, and totalitarian logics. On the contrary, I believe totalitarianism is only its logical conclusion in societies historically marked by capitalism, white supremacy, and patriarchy.

In recent years, debates about the conservative features of Umwelt theory have prompted a range of critiques alongside attempts to revise or expand it. While these studies disagree on the centrality of conservatism in Umwelt theory, all seem to recognise that Uexküll's definition of the Umwelt as the effect of a larger, supra-mechanical, and pre-existing plan of nature has limited the theory's ability to account for situations of transformation, transition, mutation, etc. More than a question of temporality, though, the potential political effects of Umwelt theory emerge from Uexküll's harmonious view of nature, wherein an organism can only ever be perfectly adapted to its environment. They are proof of a widespread and diffuse discomfort with social transformation in modern-colonial societies.

---

[204] See Ian Klinke, 'Arguing with Jakob von Uexküll's Umwelten', *GeoHumanities*, vol. 9, no. 2 (2023), pp. 1–18.
[205] Tim Elmo Feiten, 'What Do We Want from Jakob von Uexküll? Two Reading Recommendations on Open and Closed Umwelten', *Dialectical Systems: A Forum for Biology, Ecology and Cognitive Science*, 2022, accessed 12 March 2026. https://www.dialecticalsystems.eu/contributions/what-do-we-want-from-jakob-von-uexkull-two-reading-recommendations-on-open-and-closed-umwelten/.
[206] *Ibid*.
[207] *Ibid*.
[208] *Ibid*.

In a commentary on Uexküll's engagement with the work of Konrad Lorenz that is worth citing at length, Carlo Brentari gives us an important key to understanding the role of dis/harmony in Umwelt theory, and which paves the way for my analyses concerning disability:

> It almost seems as if, when confronted with Lorenz's material, Uexküll is fascinated with the pathological cases, by behavioral dysfunction, and thus neglects normality. A possible explanation for this attitude might be traced to the fact that, in the teleological and "hyper-harmonious" context of Uexküllian theoretical biology, dysfunction often appears as an enigma. […] For such a staunch supporter of the overall finalism of nature who usually tends to silently pass over the potential for misunderstanding or error in the relationship between animals and environment, the "error" of the goose that follows a man [instead of their mother] is a mysterious and fascinating phenomenon. Being unable either to deny or to explain it without compromising his theoretical suppositions, Uexküll confines himself to describing it and labelling it as erroneous, a discrepancy between perceptive image and operative image.[209]

The question of dis/harmony in Umwelt theory crystallises the problems at stake in the debates on Uexküll's conservatism. Indeed, because he adopted a radically fixed and harmonious view of nature, Uexküll failed to conceive that disharmony, failure, and contingency are core and natural parts of life and animal behaviour. His assumption of harmony means that disharmony can only ever be described in negative terms, namely, as a temporary and pathological state in between processes of harmonisation. Brentari concludes that, in Umwelt theory, '[p]ossible contradictions [between organisms] – which are inevitable, given the plurality of subjects – must simply be tolerated. Obviously, neither the behaviorists nor the psychologists would agree to leave such a fundamental problem unresolved in the name of natural environmental variability and of the subsequent cognitive relativism'.[210] Through the notion of 'cognitive relativism', which reframes the diversity of animal worlds as a result of cognitive structures, Brentari shows how Uexküll brushes over the problem of disharmony. His reading also takes Uexküll one step closer to the territory of neurodiversity, proving that Umwelt theory might be read in terms of disability. While contradictions between Umwelten are inevitable, neurodiverse individuals coexist by staying in their respective tunnels. As Brett Buchanan aptly synthesises, '[w]hile it is true that there can be many parts of nature that do not "make music" with one another, Uexküll is nevertheless clear that despite any discordance, "disorderly ringing" among cells, or disharmony between organisms and things, nature as a whole exhibits an overall harmonic composition'.[211]

[209] Brentari, *Jakob von Uexküll*, pp. 146–7.
[210] *Ibid*., p. 155.
[211] Buchanan, *Onto-Ethologies*, p. 27.

Though many have noted the detrimental effect of this conceptual framework on Umwelt theory, the conclusions drawn from this observation vary from commentator to commentator, based on one's position in the debate on Uexküll's political views. Authors who believe in the separation between Uexküll's politics and his biology have been actively working to adapt Umwelt theory to our times of dramatic environmental change.[212] For instance, Tønnessen has introduced the notion of 'Umwelt transitions' to examine the transformations of the Umwelt at different levels (phylum, species, individual) and through different temporalities (regular and irregular, single event, or historical event).[213] The idea of a 'global Umwelt transition' has also been developed to account for the current ecological crisis. Other thinkers have introduced the possibility of species extinction in the theory by acknowledging the role of sudden climate change and 'Umwelt collapse'.[214] These further developments of Umwelt theory to better account for the relational nature of Umwelten have thus led to the generation of a new Umwelt lexicon, including notions of 'Umwelt trajectories', 'Umwelt assemblages'[215] and 'Umwelt alignments'.[216]

Carlo Brentari goes even further when he calls for conceptual reworkings of Umwelt theory towards Darwinian evolution:

> [o]nce you get past the idea (simplistic even considering the writings of Darwin himself) that evolution is primarily a change in the organism brought about by the environment meant as material milieu, nothing stops us from imagining, if we expand the scope of the Uexküllian concepts, a natural evolution of the animal-environment systems, or even a natural evolution of the environments.[217]

In doing so, Brentari not only introduces some degree of contingency into Umwelt theory and updates it for our world of climate crisis, but also reintroduces the repressed Darwinian evolution into Uexküll's conceptual apparatus. While he suggests that Uexküllian evolution and Darwinian evolution are thereby made compatible with one another,[218] I am most interested in the idea that doing so introduces parasitic noise into Uexküll's perspective. In this way, dis/harmony comes back to haunt Umwelt theory.

---

[212] See Di Paolo, 'Afterword: A Future for Jakob von Uexküll'.
[213] See Tønnessen, 'Umwelt Transitions'.
[214] See Brentari, *Jakob von Uexküll*, p. 223; Timo Maran, 'Umwelt Collapse: The Loss of Umwelt-Ecosystem Integration', *Biosemiotics*, vol. 16 (2023), pp. 479–87.
[215] See Tønnessen, *Umwelt Transition*.
[216] See Tønnessen, 'Umwelt Trajectories', *Semiotica*, 198 (2014), pp. 159–80; and Brentari, *Jakob von Uexküll*, p. 223.
[217] Brentari, *Jakob von Uexküll*, p. 240.
[218] *Ibid*., p. 223: 'once the vitalist faith in the total teleology of nature is overcome, the Uexküllian idea of an adaptive insertion (*Einpassung*) between organism and environment therefore stays valid; but it is accompanied by the awareness that extinction is always possible (because of a sudden climate change or the appearance of a new species)'.

II — Parasitic Readings of Umwelt Theory, from the Tick to the Autistic

While parasitic readings abounded in the first section of this chapter, they were never made explicit. In this section, I introduce my own parasitic reading of Umwelt theory. I first draw on Michel Serres's posthumanist philosophy to signal the ubiquity of parasitism and develop the methodology of parasitic readings. I show that, by trying to cast relations of disharmony and disorder out of Umwelt theory, one might risk relying on a myth of purity or innocence that operates through repression. But one can never dispel the parasitic trouble for long, for the parasites always return to bite you.

With this in mind, I offer a parasitic reading of Umwelt theory focusing on the disanimal figure of the female tick, which Uexküll viewed positively only insofar as it complied with the plan of nature. Defined by a paradoxical form of monadic harmony, the figure of the tick is also reminiscent of the autistic: both are at once described as orderly, routine-bound, and individuated beings and perceived as dangerous parasites that may compromise the purity of the body politic. Articulating the two under the figure of the autis/tick, I propose to reclaim parasitism as a practice of neurodivergent-posthumanist resistance.

Finally, I turn to Uexküll's metaphor of the Umwelt as a soap bubble, which I read together with the metaphor of the autistic bubble. I suggest that these metaphors have tended to portray animals and autistic humans as bearers of a simpler world, if not even as lifeforms marked by disconnection. With Henry and Kamila Markram's Intense World Theory of autism, I envision a posthumanist phenomenology of autistic animality that subverts the Uexküllian Umwelt bubble. I suggest that, far from an essential and predetermined form of disconnection, autistic bubbles exemplify a protective and meaningful form of withdrawal from a too intense world.

1. Parasitic Readings: A Posthumanist Methodology through Michel Serres

Although I have engaged closely with the current debates about the nature of Umwelt theory and the role of politics in Uexküll's theoretical biology, it is not my intention to suggest that, due to its political orientations, this theory should no longer be engaged with. I am more interested in drawing conclusions from the fact that most readings of Umwelt theory from twentieth-century continental philosophy to contemporary scholarship in Uexküllian studies

have taken a parasitic form. This is probably true of all philosophical writings, which are taken in new directions as they pass through the lens of new readers and perspectives. That said, due to the striking ambivalences – theoretical, epistemological, political – that permeate it, Umwelt theory is uniquely positioned to teach us a lesson or two about the politics of parasitism in knowledge production and the dishuman construction of autism and animality in Western modernity.

Umwelt theory's conceptual ambivalence has been clear from the start, with Winthrop-Young's antithetical phrase: 'a village of one'. As Didier Samain also notes, the coexistence of the transcendental and the immanent, the material and the vital, the individual organism and the state organism in Uexküll's thinking testifies to a practice of border-thinking.[219] Because Uexküll performs a synthesis of diverse philosophical and scientific traditions, pinpointing and developing one aspect of his theory often means setting another aside.

This becomes even clearer when, as he introduces his 'Uexküllian phenomenology', Morten Tønnessen feels compelled to issue 'a general disclaimer […] Uexküllian phenomenology as we portray it is loyal not to Uexküll's thought in detail but to his essential finding that nature is constituted by the intricate relations of all living creatures, which are all subjects of the phenomenal world at large'.[220] Tønnessen's disclaimer exemplifies the epistemological stakes raised by reading politically problematic theories today. It proposes one way of performing parasitic readings, namely, claiming distance without reworking the political aspects directly.

But what exactly is a parasitic reading, and why am I suggesting this matters to the reception of Umwelt theory? In this subsection, I develop the notion of parasitic reading by drawing on Michel Serres's posthumanist philosophy in *The Parasite*.[221] I suggest that the famous example of the female tick exemplifies a general discomfort with disharmony, failure, contingency, or relationality within Umwelt theory and, more broadly, in the dishuman and disanimal modernity to which Uexküll belonged. As we know, the female tick is a parasite to the mammal whose blood she drinks. In the word 'parasite', as Serres reminds us, '[t]he prefix para- means "near", "next to", measures a distance. The sitos is the food.'[222] The parasite is the one who eats at another's table, or, in the case of the tick, who eats directly from another organism. Curiously, Uexküll expresses discontent and even fear of the social parasites he chooses to see in the Jewish people, yet he does not use the term to describe the tick. Uexküll is seemingly fascinated by the female tick and has nothing negative to say about her. Because

[219] Samain, 'Le béhaviorisme sémiotique', p. 125.
[220] Tønnessen, *Umwelt Transition*, p. 36.
[221] See Michel Serres, *The Parasite*, Minneapolis and London: University of Minnesota Press, 2007.
[222] *Ibid*., p. 144.

the tick's Umwelt is so small and the tick depends on her host to survive, Uexküll deems her behaviour acceptable. However, when it comes to human 'peoples' [*Völker*] residing in places they are not welcome to by the ethno-nationalist order, their so-called 'parasitic' behaviour is not understood as a matter of survival but as a character flaw: this kind of parasitism is not one Uexküll seems to tolerate.

How are we to understand this discrepancy? There seems to be a form of dualism at play in Uexküll's thinking here. While parasitism in ticks is seen as natural, it is deemed unnatural and undesirable in humans. Worse, human parasitism is described as a threat to the biological order of the body politic. The tick, as I have said, is deaf and blind. She senses a minimal set of perceptual cues and enacts only a minimal set of behaviours. Like Schnödl and Sprenger suggest, '[t]he whole rich world surrounding the tick is constricted and transformed into an impoverished structure that, most importantly of all, consists only of three features and effect marks [*Merkmale* and *Wirkmale*]—the tick's environment [*Umwelt*]. However, the poverty of this environment is needful for the certainty of action, and certainty is more important than riches.'[223]

As both authors note, Uexküll highlights the poverty of the tick's Umwelt but never deplores it. Following his theory of counterpoints, the relationship between the tick and the warm-blooded mammal, though asymmetric, is framed as harmonious and natural. Parasitism, in this sense, is viewed as a linear and dialogical relation where positions are clearly distributed. Similarly, the tick's impairments are not perceived as negative, nor do they lead, through ableism, to social processes of disablement. In other words, they are naturalised. According to Schnödl and Sprenger,

> This poverty, though, is only possible because the tick has a host on which it depends for long-term survival and reproduction. Without this host, the tick loses its place in the order of nature—and the host can deprive the tick of its place. The life form of parasites is accordingly always characterized by dependency: its Umwelt can be simple because it is oriented toward another living entity as an Umwelt.[224]

Consequently, Uexküll does not find fault with dependency when enacted within the confines of harmonious biological relations defined by their conformity to the plan of nature. When it comes to marginalised human communities, though, Uexküll's views on parasitism and dependency are quite different. As a conservative and an aristocrat, Uexküll fears for the stability and purity of the state organism, as intruders could contaminate it.

[223] Schnödl and Sprenger, *Uexküll's Surroundings*, pp. 58–9.
[224] *Ibid*., p. 59

Uexküll's readiness to excuse the tick's parasitism raises questions. Could it be that Uexküll's differential treatment of biological and social parasites is justified by a simplistic appeal to nature? The answer is yes, but perhaps not in a typical sense. Indeed, Uexküll tolerates – and is even fascinated by – the female tick not simply because she embodies *Planmäßigkeit* in the way minoritised human groups (such as racialised, sexualised, impoverished, or disabled people) may not, but because she exemplifies his monadic sense of Umwelt composition. In *The Parasite*, Serres provides an insightful description of Leibniz's *Monadology* in terms of harmony and disharmony, which in turn reflects on Umwelt theory. He says: 'And Leibniz is right, monads are closed; they neither hear one another nor listen to one another. And yet, sometimes, there is agreement. The most amazing thing in the world is that agreement, understanding, harmony, sometimes exist. Leibniz supposed God for this law-miracle.'[225]

The tick in her Umwelt does not hear a sound. She inhabits a minimal world. Mammals pass by a tick's bush only sporadically, so 'ticks must be capable of living a long time without nourishment […] The tick can wait eighteen years; we humans cannot.'[226] Posted on the top of her branch for eighteen years, the tick perceives virtually nothing: she lives in a closed-off world, unbothered by the ebb and flow of her surroundings. Her Umwelt – but this is true of most, if not all, Umwelten according to Uexküll – is an actual monad. Yet it is a fully integrated monad among the *villages of one* that constitute the natural world. Though Uexküll does not explain the plan of nature in theological terms, his monadology of the Umwelt echoes that of Leibniz in Serres's description:

> He [God] said: here is an orchestra. Each musician plays his instrument as if he were alone in the world. He likes only his English horn, this English horn is he himself in person. He plays his part of the score, and when he has finished, at the very end of the page, he puts down his things and leaves the theater. But only to die. How could the first viola be in harmony with him, for the first viola has never thought of anything but his four strings? Leibniz answered: God created the viola so that at a certain predetermined and well-fixed time, it would produce the note preformed harmonically to that of the English horn. God foresees harmony and God is harmony. History is programmed; everyone has a score.[227]

Parasitism in the female tick, then, can be explained and justified by the plan of nature not merely because it is natural and therefore moral or good, but because it reflects the harmony that exists between different Umwelten. The tick simply plays her part in the score; when she has finished drinking the mammal's blood, she leaves the stage – not the crime scene. But only to lay her eggs and die. In Uexküll's eyes, there is nothing abnormal about the tick's behaviour

[225] Serres, *Parasite*, p. 121.
[226] Uexküll, *Foray*, p. 52.
[227] Serres, *Parasite*, p. 121.

– on the contrary, she is perfectly (and harmoniously) integrated into the system of nature. The female tick, in a sense, is the ethologically typical (or 'ethotypical', see glossary or Chapter 6) animal *par excellence*. She is a parasite, and yet she is not one. She has impairments, and yet she is not disabled. In fact, neither parasitism nor disability seem to exist in the harmonious system of the biological Umwelten. When they do show up – specifically in human contexts – this becomes an affront that needs to be quickly corrected before the state breaks apart.

And yet… Yet Serres challenges Leibniz's monadology in a way that rebounds up to Uexküll. For him,

> [t]he probability of harmony is weak in the multiple distribution of senders and the qualitative weakness of reception. Harmony is not a law; it is not regularity. Harmony is rarity itself. It is, quite precisely, a miracle. I call a miracle a very great improbability. When the miracle occurs, from an improbable accord, it produces a new song, so very rare that it is forbidden for repetition to have ever occurred for as long as the period of time was before the meeting.[228]

Serres does not buy into Leibniz's – and by extension, Uexküll's – belief in harmony as a natural law. On the contrary, his book prompts us to rethink parasitism and acknowledge its ubiquity. Serres troubles the peaceful harmony of the Umwelt-monads by arguing that harmony is, really, nothing more than a miracle, an improbable occurrence. Whereas harmony and monadism are natural laws in Leibniz (as the effect of God) and Uexküll (as the effect of a natural plan), Serres suggests that harmony is the absence of life as creation. Harmony, as I have suggested, is teleology. It requires that the roles are always already distributed, and the scores always already written. But according to Serres,

> [i]n any case, repetition is death. It is the fall into the similar, like the fixed identity of the too-well-known. If the only concert(s) in the world came from the already written, the world would quickly become a pale hell where shades floated about. It is often like that, I know. But were truth and reality always prescribed, everything would be transformed into the sepulchral. The always already is only a cemetery where entropy rots matter away.[229]

Repetition is death because it presupposes a fixity of relations. If the spider's web is fly-like, can the fly and spider ever experiment with new relations? If the orchid is bee-like, can the bee ever not be lured? In a world of human and more-than-human troubles, nothing goes according to plan. Serres goes even further: contingency is the norm in all spaces and at all times, in such a way that

[228] *Ibid*., p. 122.
[229] *Ibid*.

> [w]e know nothing of composition, of the product, of the sum, of the integral of monads or of individuals, however their society of association is named. We know nothing of the simplest or most direct operations […] The collective is a black box. The set makes noise. Even if each element plays in tune or sends meaning, the set together produces a false, dangerous, senseless clamor. The collective is white noise itself; we do not know what an orchestra is or how a chorus harmonizes. The collective is not a preestablished harmony, or to put it another way, it is not the always already there. Noise comes out of the black box. Noise and shivarees.[230]

Here, Serres introduces another, third meaning of parasitism. Beyond the biological parasite and the social parasite, there is parasitic noise – often referred to as 'static' in English – that interferes with communication. The dialogical, unidirectional communication between the parasite and the host is troubled by the irruption of a third party, the static, which parasites the terms of that very relation or communication.

The host is not always blind like the tick is: it can become aware of its being parasited. It hears and sees what is going on… but not so fast! Static is interfering in such a way that what the host sees is not exactly what the parasite intended. It is not so clear anymore who parasites whom. The story becomes even more complicated when the host starts defending itself against its parasite by emitting a noise: '[t]he host counter-parasites his guests, not by taking away his food from them (first meaning) but by making noise (second meaning).'[231] An alarm, for instance, such as the one Uexküll sounds on behalf of the German state against the social parasites who threaten it. This counter-parasitism changes everything: the host has turned into a parasite, and we are not really sure who is who anymore. 'But an alarm doesn't always last […] and the background noise returns to the transformed system.'[232] In this sense, parasitic noise 'is the heart [*fond*] of being; parasitism is the heart of relation'.[233]

Precisely, Uexküll's theory centres on the figure of the female tick because, with her monadic world, she constitutes the paradigm of harmony and disconnection that is core to Uexküll's biology. The same goes for the Jewish people, whom Uexküll describes in derogatory terms as 'simple Jews' with 'small Umwelten',[234] or women, whom he believes are equipped with a naturally greater awareness of the diversity of Umwelten. In this way, women are turned into keepers of harmony: 'Umwelten are natural to them. Every woman knows that her neighbours live in a different world'.[235] The closure of the Umwelt and the 'near-autistic solitude' in which it puts the animal thus serves a clear purpose, following Serres:

---

[230] *Ibid*., p. 123.
[231] *Ibid*., p. 52.
[232] Héctor González-Castaño, '*Le Parasite*, Michel Serres', *Appareil*, 22 April 2013, p. 7, my translation.
[233] Serres, *Parasite*, p. 52.
[234] Jakob von Uexküll, *Niegeschaute Welten: Die Umwelten meiner Freunde*, Berlin: S. Fischer, 1936, p. 161, cited and translated in Schnödl and Sprenger, *Uexküll's Surroundings*, p. 63.
[235] *Ibid*., p. 119, cited in Klinke, 'Arguing with Jakob von Uexküll, p. 13.

> [t]he monad has neither door nor window, and this is so so that it can defend itself from deadly malady. If we perceived all the noise of the world, if we suffered our own noise, we would faint and move toward the flat (waves). Thus the monad double-locks its orifices, and finally, it suppresses them entirely because of this physical danger-death by inundation.[236]

The abjection of parasitism through closure is highly political and profoundly dangerous. In his reading of La Fontaine's fable on *The Gardener and his Master*, Serres narrates that the gardener tries to protect his garden from the hare's intrusion (whether physical or by noise).[237] But Serres shows that no enclosure will prevent this parasitism, for the hare can always dig new holes. Therefore, the more the gardener strives to secure his property, the more he hastens the advent of its destruction. Similarly, the rejection of parasitism – and by extension, of the dishuman figures of disharmony and disorder – in Uexküll's political biology and its erasure in the example of the female tick, reveals an implicit tension at the core of the theory. When Uexküll sounds the alarm against social parasites, he connects his politics to biological theories: harmony is not only a descriptive feature of nature for Uexküll, but a normative horizon.

In Serres's words, 'the parasite is a differential operator of change […] a little troublemaker'.[238] It disturbs pre-existing positions and introduces confusion in linear communication and in the 'state of equilibrium (homeostasis)' of a system.[239] In Uexküll, it reveals an underlying anxiety about relationality, vulnerability, and interdependence, which come back to haunt him. Serres is right in this sense: your white noise (i.e. the static, or parasitic noise) always returns to haunt you. In Uexküll's case, white noise is found in the repression of (racialised, feminised, disabled) disharmony and disorder, the biggest fear of the white male aristocrat. In trying to protect the life of the German state against the intrusion of non-white peoples, diseases, and disorders, is Uexküll not in fact contributing, through his theories, to the destruction that has marred modern German history? In any case, he was clearly complicit in the reconfiguration of a dishuman modernity in which disorder and disability are ubiquitous precisely because they are meticulously avoided and repressed.

When I described the main readings of Umwelt theory in twentieth-century continental philosophy as parasitic, in a trivial sense, I first meant to highlight the introduction of parasitic noise in Uexküll's theoretical apparatus. The introduction of *openness*, *affects*, and even *autism* into the historical and contemporary developments of Umwelt theory has taken Uexküll's ideas in new directions, often polar opposites of his own inclinations. Perhaps there is value to be

[236] Serres, *Parasite*, p. 126.
[237] See *Ibid*., pp. 77–85.
[238] *Ibid*., p. 196.
[239] *Ibid*.

found in this proliferation of parasitic readings, for Uexküll's work is no longer remembered for his conservatism and is instead widely claimed by posthumanists.

At the same time, I wish to suggest that the parasitic noise was already there from the start, in the form of dis/connection, dis/harmony, and dis/order. These ambivalent conditions are fundamental aspects of biological and social life, whether human or animal. It is clear that Uexküll's teleological and monadological conception of animality allows him to repress these uncomfortable realities in a way that could not be so easily applied to humans. Precisely, this ambivalence relies on the nature/culture dualism, and on an adapt to impose a naturalised concept of harmony onto the social-political sphere. But as we saw with Di Paolo, 'we must also see that "harmony", if and when it is the case, is precarious, conflictive, and always changing'.[240] Paradoxically, if life is nothing but parasitism, Uexküll is right to justify the tick's behaviour – this is precisely what Serres does. Yet he seems to miss the universal nature of this parasitism: he reserves it for the tick without grasping that she, too, may end up being parasite, or even that he might, similarly be parasited by her. In this way, disharmony and disorder come back to bite him just like the female tick with her host.

In a second sense, then, my parasitic reading could be described as deconstructive, for it aims to reveal the constitutive margins of the theory, the repressed elements that return to haunt it. Uexküll's parasite also haunts us as readers of continental philosophy or posthumanist scholars, tempted to think with Uexküll or with his parasitic readers, as autistic people who may find an inspiration in Umwelt theory to think about the autistic Umwelt. I call for renewed attention and accountability in the ways we seek nourishment in Umwelt theory: this is all but an innocent site.

2. Reclaiming Autis/tick Parasitism

In suggesting the existence of an ambivalent fascination and anxiety about dis/order and dis/harmony in Umwelt theory, I am offering my own kind of parasitic reading, and a possibly corrosive one at that. With Serres, I seek to explore what happens when minoritised populations such as racialised, precarised, sexualised, and disabled communities, which are often described as social parasites, reclaim the stigma of parasitism. Embracing the parasitic component of Umwelt theory expressed through its disanimal and dishuman figures, the female tick and the autistic – which I playfully reconfigure as the autis/tick – makes room for resistance from within, for a decentring of the norm.

[240] Di Paolo, 'Afterword', p. 254.

This is not to say that Umwelt theory can or cannot be saved from Uexküll's troubling relations with Nazism (regardless of whether it was short-lived and superficial) or from Uexküll's broader conservatism, nor is this to suggest that these political inclinations are the whole of the theory. My reading here is at once critical and affirmative, in the sense that it favours a coalition of parasites: nonhuman animals, racialised people, women, queer and trans people,[241] autistics and otherwise disabled or neurodivergent folks, and all others who, likewise, are described as social parasites. Our ability to disrupt the social order's harmony can be a privileged pathway to a world where we, too, can exist in relative and semi-stable harmony. Reclaiming dis/order and dis/harmony in Umwelt theory may therefore be the way to an intersectional, posthumanist, and neurodivergent reading of Uexküll.

In this sense, I am trying to make sense of the role that dis/connection, dis/harmony, and dis/order – as exemplified by the figure of the autis/tick – have played in the readings of Umwelt theory to this day. The mention of disorder here not only points to the social order and its disorders, but also to the pathologising concept of disorder. What does it mean that the repressed, constitutive other of Umwelt theory, so to speak, has taken a parasitic form, from the tick to the autistic? While the tick has been the most common figure to describe and examine Umwelt theory, it is not insignificant that the very feature of the theory that the tick exemplifies – monadism – has come to be described in recent works as 'autistic'.

Today, autism is often understood as a condition of psychological rigidity and disconnection from one's environment. Autistic people tend to like routines, predictability, and stability, and to rely on conformity to pre-existing plans. What is described as a predictable and stable temporality of autistic lives, with routines and recurring special interests, echoes the slow and predictable temporality of the tick's existence. In her description of Umwelt theory, Vinciane Despret admits to a form of disappointment: while she expected the theory to provide rich insights into the inner lives of the animals, the latter 'appeared […] to be limited to following inescapable *routines*'.[242] Autistics are also known to enjoy stable, predictable environments, and are often described, rightly or wrongly, as being wary of or uncomfortable with social interactions, which echoes the tick and her minimal interactions with conspecifics and heterospecifics alike.

In this very sense, autism could be understood as a positive disposition towards homeostasis and conservatism, if not in the political sense developed by Uexküll, at least in the psychological sense. Certainly, this representation has limitations: it is easily lent to

[241] An example of potential reclamation of ticks as a figuration of subversion is found in Wibke Straube's transecological discussion of ticks and queer-trans bodies as toxic. See Wibke Straube, 'Toxic Bodies: Ticks, Trans Bodies, and the Ethics of Response-Ability in Art and Activist Writing', *Environmental Humanities*, vol. 1, no. 1 (2019), pp. 216–38.
[242] *Ibid*., p. 163, my emphasis.

problematic narratives which pathologise, fetishise, and or homogenise autistic traits. This is quite clearly what is at stake in Winthrop-Young and Espahangizi's references to autism, which are nothing short of worn-out ableist metaphors. In both examples, it is not so much autistic people that are interpellated, but rather a culturally diffuse and frankly neuronormative perception of the 'autistic' as a figure that operates based on a stereotypical projection of disconnected behaviour.

Given that Uexküll himself never addressed autism *per se* – and how could he have, since autism as a clinical category was not widely recognised before 1943-1944, respectively by Kanner and Asperger – my reading does not claim that Umwelt theory bears directly on autistic behaviour, autistic biology, or autistic anything. Rather, by reading autism *into* Umwelt theory in a parasitic way, I seek to examine the cultural motivations that led contemporary commentators to affix the autism metaphor to Umwelt theory, but also the way the latter in turn reflects on the development of pathologising discourse about autism from 1943 to this day. In this way, the core features of Umwelt theory crystallise and amplify culturally and politically significant narratives of autism and, more broadly, of disability.

While it is no longer fashionable to present autism as a disease or a disorder since the rise of the neurodiversity movement, it is still often presented that way in the medical literature. With Serres, I note that 'a tradition that merits reexamination called health the silence of organs'[243] and that, '[i]t happens, in particular, that an infectious disease is provoked by the arrival of a parasite'.[244] In the year of Uexküll's death, Austrian psychiatrist Hans Asperger developed his clinical concept of autism, which would later give rise to the coining of the nosographic category of 'Asperger's syndrome' by Lorna Wing in 1981.[245] It is often believed that Asperger had a fairly positive view of his autistic patients, whom he deemed sensitive and skilled. In recent years, however, historical evidence has been brought to light suggesting that Asperger collaborated with Nazi officials to send dozens of autistic children to a certain death at the Am Spiegelgrund clinic in Nazi Vienna, as part of a eugenic campaign.[246]

Though the removal of 'Asperger's syndrome' from the DSM in 2013 and the International Classification of Diseases (ICD) in 2019 is not directly based on these disturbing findings, Asperger's newfound complicity has prompted ongoing debates about the ethical issues associated with the category, especially in activist circles. Just like Uexküll, Asperger is

[243] Serres, *Parasite*, p. 197.
[244] *Ibid*., p. 198.
[245] See Lorna Wing, 'Asperger's Syndrome: A Clinical Account', *Psychological Medicine*, vol. 11, no. 1 (1981), pp. 115–29.
[246] See Herwig Czech, 'Hans Asperger, National Socialism, and "Race Hygiene" in Nazi-era Vienna', *Molecular Autism*, vol. 9, no. 29 (2018); Edith Sheffer, *Asperger's Children: The Origins of Autism in Nazi Vienna*, New York and London: W.W. Norton & Company, 2018.

an ambivalent historical figure whose role in National Socialism has sparked intense debates.[247] Asperger's alleged affection for some of his autistic patients, like Uexküll's documented curiosity for the diverse worlds of animals, has made him a popular figure in some communities, who thus started referring to themselves as 'Aspies'.

The intersection that emerges through the homologies between the tick and the autistic, or Uexküll and Asperger, raises important questions about the epistemologies and politics of disorder in the Nazi era and after. The arrival of the autis/tick parasite in the clinical and political scene of Uexküll and Asperger's time amounts to the emergence of an 'infectious disease', to speak in Serres's words. The Nazis orchestrated a mass killing of disabled people precisely because they feared for the health of the state as a social organism. In this way, disabled people are often described as social parasites who depend on others to survive, particularly on the help of the welfare state. In recent times, hygienist anxieties about autism have been reinforced by the – now largely discarded – theory that vaccines cause autism. As Roberto Esposito noted about Uexküll's political biology, the cultural-scientific phenomenon of autism has been plagued by biopolitical concerns about the immunity of the body politic.[248]

In this sense, in the rhetorical and political constellation surrounding Uexküll and his Umwelt theory, autism is at once represented as a typical, if not paradigmatic, form of Umwelt – just like the female tick's – and as a parasitic and impure one, the kind Uexküll hated and wished to purify from the state. The assimilation of the monadic Umwelt to a stereotypical view of autistic disconnection in recent readings, in addition to disseminating problematic understandings of autism from the contemporary era, is widely anachronistic. When carefully examined, it appears that they are parasited by the white noise of the political-biological doctrines of Uexküll and Asperger (through the intermediary of the Nazi regime and its eugenic campaigns).

So I ask: what does it mean for autistic people to constitute such a perfect metaphor for Umwelt theory while never being seen as true members of the social body? I suggest that the autis/tick figure in Umwelt theory reflects a paranoid attitude towards impurity and contamination. At once what is wished for or fetishised – order, stability, repetition, bounded individuality, and autonomy – this figure also crystallises what is most feared – dependence and vulnerability, disharmony, disorder, and disease. Surely these parasitic figures say less about the actual Umwelten of autistic people than the representations of autism that permeate

[247] See, for example, Steve Silberman, *NeuroTribes: The Legacy of Autism and the Future of Neurodiversity*, New York: Avery, 2015, p. 97.
[248] See Esposito, *Bios*, pp. 17–18.

cultural, clinical, and political spaces, and that participate in the elaboration and dissemination of Umwelt theory.

By amplifying the figures of Umwelt theory in this subsection, from the tick to the autistic, I have tried to shed light on the parasitic nature of Umwelt theory and of its reception. Drawing on Serres's posthumanist philosophy of parasitism, I have started to elaborate my own kind of parasitic reading of Umwelt theory, suggesting that disharmony, disorder, and disability are the targets of conservative anxiety in Uexküll. Though he attempts to repress them, these features come back to bite him in the form of the parasitic tick or the parasitic autistic. Following Serres's invitation to reclaim the parasite as a political tool to resist the political order, I aimed to suggest that parasitism is, really, a core component of the Umwelt of all animals and societies.

3. A Foray into the Bubbles of Autistics: The Phenomenology of Being-in-the-World from Umwelt Theory to the Intense World Theory

In the previous subsection, I examined the idea that conservative anxiety about disorder and disharmony in Umwelt theory is crystallised around the autism metaphor. Though Uexküll discusses neither autism nor disability, they retrospectively haunt his theory because of their cultural assimilation to disconnection and disorder. In this final subsection, I offer a further parasitic reading that focuses on Uexküll's soap bubble metaphor in order to envision a posthumanist phenomenology of autistic being-in-the-world. Drawing on the conclusions of the previous subsection, I begin with the observation that the monadological constitution of Umwelt theory echoes that of the traditional autism concept in clinical settings. The 'soap bubble' metaphor, which Uexküll used to describe the Umwelt, echoes the common description of autistic people as living 'in their bubbles', that is, disconnected from their surroundings. It is as if they were locked in their Umwelten and, perhaps more so than other humans, incapable of accessing the *Umgebungen*, the material world around them.

This problematic description of autism and its echoes within Umwelt theory raise a significant question: Why might one be inspired to use Umwelt theory to develop a phenomenology of autistic being-in-the-world? Curiously, many autistic people have described their particular form of being-in-the-world through the concept of the Umwelt. By emphasising lived experience, the *Umweltlehre* helps us make sense of the ways autistic people exist in the world. For this reason, it is also at the foundation of the Miller Umwelt Assessment Scale (MUAS), a psychological instrument used 'to sort out the nature of [a behaviour-disordered

child's] reality in order to introduce the interventions most helpful in resolving that particular child's reality problems'.[249] In this context, the Umwelt refers to 'the unique reality constructed by each child and within which the child functions'.[250] The concept, according to Arnold Miller and Eileen Eller-Miller 'is important because it puts the emphasis on the child's ongoing experience where it belongs. As the following instance shows, often an analysis of the child's experience of reality can make otherwise obscure behavior readily understandable.'[251]

While many autistic people have sought to use the concept of the Umwelt in an affirming way, the clinical uses of the concepts, like the one proposed by Miller and Eller-Miller, rely on a more problematic approach. This is made clear by the use of pathologising language, like 'behavior-disordered children', 'reality problems', but also by the idea that the autistic Umwelt does not allow the child to develop normally and needs to be redirected and enlarged: '[a] proper assessment of the kinds of systems these children possess and how these systems fail to bring them into adaptive contact with their surroundings permits planning interventions most likely to help them develop expanded Umwelten within which they can perform and grow.'[252]

Against the problematic interpretation of autism as disconnection, I attempt to take my parasitic reading of autism into Umwelt theory a step further. How can a critical engagement with Umwelt theory help us reframe autistic dis/connection in more affirming ways? How can a parasitic reading help us deconstruct the idea of autism as transcendental monadism? Can we parasite Uexküll's thinking to demonstrate that the autistic Umwelt is defined by a formation of meaningful – rather than meaningless, mechanised – worlds?

As its etymology itself illustrates (from the Greek *autos*, 'the same', which has come to be understood as 'the self'), the figure of the autistic is often characterised as that of an individual trapped in their own bubble, cut off from the 'real world'. According to this metaphor, the autistic functions in a closed circuit whose scope and extension only revolve around the sameness of the self. Whereas the allistic (i.e. the non-autistic, from the Greek *to allo*, 'the other') would reflect an authentic relationship with the external world and an ability to interact – or, as one might conceive in posthumanist terms, following Karen River Barad, to intra-act[253] – with it, autistic involvement with the other is thought to be lacking, revealing an autistic condition of solipsism. Neither centrifugal nor centripetal, as that which opens itself to the outside or shuts down completely – for instance, by bringing everything back to oneself –

[249] See Arnold Miller and Eileen Eller-Miller, *From Ritual to Repertoire: A Cognitive-Developmental Systems Approach with Behavior-Disordered Children*, New York: Wiley, 1989, p. 213.
[250] *Ibid.*
[251] *Ibid.*, p. 1.
[252] *Ibid.*, p. 215.
[253] Intra-action is defined as relationality that precedes and engenders individuation, while inter-action requires already determined and individuated agents. See Karen River Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham and London: Duke University Press, 2006.

the relationship between autistic people and the world even seems fully static: a total and immutable disconnect. Bringing this figuration to its logical conclusion, the mere idea of a specific mode of 'autistic being-*in*-the-world' appears a striking oxymoron, so much so that we should instead assimilate autistics with the Heideggerian animal, who is 'poor in world'.[254]

On the contrary, recent accounts by autistic people describe an experience of hypersensitivity. The figure of the *empath*, which gained momentum on social media in recent years, displays traits which more often than not echo those of autism. Whether one talks of emotional hyper-empathy or experiences of sensory and cognitive overload, one seems to shift from a rhetoric of deficit towards a rhetoric of intensity, perhaps even excess. With that second figuration, one witnesses a vision of autism as radical openness and vulnerability to the outside world and its components.

In between the two extremes of the classical (i.e. neohumanist) phenomenology of animality as poverty in world – to which Uexküll is sometimes associated[255] – and the posthumanist phenomenology of radical openness and vulnerability to the material world, lies a third mode of figuration, which is characterised by the existential-humanistic phenomenology of madness and mental disabilities. The latter articulates the relationship between the autistic subject and the world at the level of the dynamic movement of the subject opening up to the world or shutting down from it. There, it is argued that normal or healthy embodiment is characterised by openness to the world in its unpredictable mutability, whereas illness, madness, and particularly autism are defined by closure (see Chapter 2).[256] This third perspective sometimes goes as far as to apprehend the autistic subject as displaying an *impoverished* – i.e. 'pathological' – form of human being-in-the-world, rather than a simply *different* form of it.

How, then, should we understand the being-in-the-world of autistics? Are autistic people alone in bubbles of metaphysical solitude or monadic Umwelten, so much so that they could come to exemplify the Cartesian pre-*cogito* stage of solipsism? Are they, on the contrary, intensely interconnected with the surrounding world, to the point that all there ever is is entanglement, and autistics may not qualify for a world of their own? Or do they display movements of opening and closure from their surroundings, hinting at a complex, and sometimes pathologised, entanglement of *Umwelten* and *Umgebungen*?

The question of the being-in-or-out-of-the-world, which I place at the centre of my

[254] Heidegger, *The Fundamental Concepts of Metaphysics*, p. 184.
[255] See Roberto Marchesini, 'The Therianthropic Being as Our Neighbour', *Angelaki*, vol. 21, no. 1 (2016), pp. 201–16.
[256] See Till Grohmann, *Corps et monde dans l'autisme et la schizophrénie. Approches ontologiques en psychopathologie*, Cham: Springer, 2019, and Henri Maldiney, *Penser l'homme et la folie*, Grenoble: Éditions Jérôme Millon, 2007.

reading, belongs to the lexicon of phenomenology. A classical concept in the field, being-in-the-world refers to the subject as always already existing in and with a world, its embodied consciousness always already of and for a world. Intentionality is the name commonly attributed to this process of orientation of consciousness, which implies that we access the world based on the modality of this orientation. One could even say that worldmaking is the prerogative of the subject, in the sense that all beings do not share one single world but create their own versions of it.

Although such a figuration represents subject and object, organism and world, as always already entangled, phenomenology is sometimes criticised for making the latter depend on the agency and formalising activity of the former. In posthumanist terms, this backgrounding of the world and bracketing of the hypothesis of its material existence outside the subject, is sometimes frowned upon. Posthumanists and particularly new materialists often reject the phenomenological reduction, or *epoché*, instead favouring the study of material interconnections, flows, and other forms of co-becoming of biological and technological matter.[257] Thus, maybe the project of a posthumanist phenomenology could appear antithetical. Yet such attempts have been formulated in promising ways in recent years.[258]

As I suggested, the second mode of figuration of autistic embodiment – the empathetic one – can be framed as posthumanist and interpreted through expressions such as 'insurgent vulnerability'.[259] With posthumanist phenomenology, one insists on the disposition of bodies and subjectivities to be done and undone by the world, and of organisms to be affected by their environment. In other words, one addresses bodies' co-constitution by the material world. While my theoretical perspective is partial to the posthumanist approach, I am less enthused by the over-relational bias that backgrounds the existential and psychological resistance to relationality enacted by subjects to protect themselves from unbearable surroundings.

One of my goals in this section and its parasitic reading of Umwelt theory is to lay the groundwork for a posthumanist critique of traditional phenomenological approaches to autistic embodiment, both anthropocentric and humanistic, through the question of being-in-or-out-of-the-world. At the same time, I hope that focusing on autistic people's lived experience of the world – which is never so simple as a celebration of relationality and openness – can lay the

[257] See Stacy Alaimo, *Exposed: Environmental Politics and Pleasures in Posthuman Times*, Minneapolis and London: University of Minnesota Press, 2016, p. 3: 'The anthropocene is no time for transcendent, definitive mappings, transparent knowledge systems, or confident epistemologies. […] The immediacy of phenomenology, for example, does not enable trans-corporeal mappings of networks of risk, harm, culpability and responsibility within which ordinary Western citizens and consumers find themselves.'

[258] See Christine Daigle, *Posthumanist Vulnerability: An Affirmative Ethics*, London, New York, and Dublin: Bloomsbury Academic, 2023; Nina Lykke, *Vibrant Death: A Posthuman Phenomenology of Mourning*, New York: Bloomsbury Academic, 2021; and Astrida Neimanis, *Bodies of Water: Posthuman Feminist Phenomenology*, London and New York: Bloomsbury Academic, 2017.

[259] Stacy Alaimo, 'Insurgent Vulnerability: Masculinist Consumerism, Feminist Activism, and the Science of Global Climate Change', *Kvinder, Køn og Forskning*, no. 3–4 (2009), pp. 22–35.

groundwork for a stronger relationship between posthumanism and phenomenology. While posthumanism is often wary of phenomenology – and for good reasons – the interest shown by autistic people toward phenomenological accounts might warrant renewed engagement with phenomenology within posthumanism.

It is not incidental that questions of being in or out of the world, central to the discursive regime of phenomenology, are also found in cultural descriptions of autism. From its origins, autism as a diagnostic category has been defined as a deficit of connection with, or interest in, the world, which is often understood as a neurotypical social world. More and more so, autistic communities argue for a more positive view of autistic being-in-the-world, also highlighting the pleasurable ways in which autistics relate to their lived worlds. The phenomenology of being-in-the-world thus asks how autistics project, process, make sense of, and respond to their surroundings in their variability and diversity, whether pleasurable or hurtful. Here, being-in-the-world is never only projective or receptive, but a combination of both. Simply put, autistic embodiment appears as an existential style which orientates or defines the outlines of one's ways of being: this means that receiving stimulation is always already negotiating it, integrating it in within layers of meaning-making.

Instead of attempting new descriptions and figurations of autistic being-in-the-world through the lens of a posthumanist phenomenology – which could be explored in more depth in future research – this subsection proposes to stay with the trouble of the question of *whether* autistic people exist in the world and what role withdrawal, disconnection, and asociality might play in such a world. This is particularly relevant for a parasitic reading of Umwelt theory following its descriptions as autistic by Winthrop-Young and Espahangizi. In other words, before exploring the original ways in which autistic being-in-the-world could be described, perhaps with the idea of an 'autistic Umwelt', I am interested in examining the traditional descriptions of human and animal being-in-the-world and the role autism and 'the autistic' have played in these conceptions.

To do so, I offer a comparative reading of two theories related to animal and human being-in-the-world, which are linked to autism in different ways. The first one, Uexküll's Umwelt theory, as I have shown above, defines the being-in-the-world of animals as a closed-off, harmonious structure, illustrated by the 'soap bubble' metaphor. While the autism metaphors for Umwelt theory I discussed make autism the perfect exemplifier, if not even the paradigm of what being-in-the-world might mean for (hum)animals, I argue that Umwelt theory, centring around simpler organisms like the female tick, crystallises the 'autistic' as a figure of a *simpler* world, if not even of a disconnection from the real world, thus failing to account for the dynamic role of autistic world-making and bubble-making.

I then connect Umwelt theory to the Intense World theory of autism, coined by Kamila

and Henry Markram, which argues that autistic embodiment is characterised by a particularly sensitive neurobiology, which makes it difficult for autistics to embrace the intensity, complexity, and variability of the material world.[260] Could it be that it is because of this hypersensitive being-in-the-world that autistic people tend to look for and shape safe, predictable, and meaningful environments for themselves? While the Intense World theory's understanding of autistic embodiment dynamically links the material world and the protective 'bubbles' of autistics, its humanistic conception of autistic bubbles as protective reactions which should be prevented proves pathologising.

a) **Autistic Bubbles as the Paradigm of Animal Disconnection in Umwelt Theory**

What do Winthrop-Young and Espahangizi's autism metaphors for Umwelt theory say about the phenomenology of autistic being-in-the-world? As I have suggested already, these metaphors should not be understood to say something accurate about autism itself, but instead exemplify the pervasive ableism of contemporary representations of autism in science and society.

Instead of asking whether autism is like or unlike a monadology, I am interested in the aspects of Umwelt theory's understanding of animals that have made it available to autistic analogy. Moreover, I explore how a parasitic reading of the soap bubble metaphor for the Umwelt, along with recent, more affirming descriptions of autism, can help us see human and animal being-in-the-world in a new light. Paradoxically, while in the cultural representation Winthrop-Young and Espahangizi exemplify, autism is thought of as a source of disconnection from the 'real world', in Uexküll's theory, it becomes to the *standard* constitution of the Umwelt. In one case, the bubble isn't deemed a world, or if so, not a *real* world: in the other, the bubble functions as the *prototypical* constitution of being-in-the-world. To put it differently: in the first case, the autistic is defined by *abnormal* and *pathological* disconnection, whereas in the second case, this disconnection appears as the *normal* mode of functioning for all animals (whether human or nonhuman).

If it is true that there is a great diversity of modes of being-in-the-world between individuals and species, it might also be true that not all beings are as similarly dis/connected from/to the world. This is precisely what Heidegger argues in his reading of Uexküll, when he

[260] The phenomenological implications of the Intense World theory of autism have already been studied in relation to the experience of emotions and empathy. See Elisabetta Angela Rizzo and Tina Röck, 'Autistics as Empathic Subjects: Phenomenology and Intense World Theory', *Phenomenology and Mind*, vol. 21 (2021), pp. 34–46. The specificity of my contribution lies in the argument's emphasis on the question of the world, of the being-in-the-world of autistics.

holds that nonhuman animals are not ontologically equipped to connect to a world and are thus 'poor in world'. Even when we disregard Heidegger's metaphysical humanism and stick to Uexküll's descriptions, the fundamental ambivalence of his thinking does not make things clearer. The female tick became especially notorious due to its three functional circles. On the contrary, the dog and the human being are portrayed as being able to learn new tricks or integrate new knowledge.

Perhaps Uexküll's conception of the Umwelt displays an autistic pattern, but is the Umwelt really evocative of autistic people and their worlds? One should remember that Uexküll was most fascinated by smaller organisms and their Umwelten. Regarding the sea urchin, Uexküll does not shy away from speaking of a 'republic of reflexes'.[261] The complexity of human Umwelten makes them virtually harder to describe exhaustively, and Uexküll hardly ever tries to formalise them, focusing instead on smaller, more predictable Umwelten. This may be why many believe that Uexküll's political biology is disconnected from his theoretical biology: the core tenets of Umwelt theory are found at the scale of smaller animals like the tick.[262]

That autism might be evocative of Umwelt theory suggests that autistic people are commonly assimilated to 'simpler' animals. It is indeed possible to connect common descriptions of autistic bubbles and Uexküll's proto-ethological description of the tick's Umwelt: stuck in their bubbles, autistics could not see or act beyond it, nor realise they are, indeed, stuck in bubbles. Like the tick, autistic people are seen as having limited sources of stimulation from the outside world.

How are we to understand the parallels between the Umwelt of a small animal like the tick and the Umwelt of an autistic human? As I suggested before, the autism metaphor for Umwelt theory points to a pathologisation of autism in cultural and scientific representations. It crystallises pervasive anxieties about disorder and disharmony as they relate to animality and dehumanisation. In Umwelt theory, autism functions as the paradigm of harmonious monadism, something that an aristocratic conservative like Uexküll finds reassuring. But in the social understanding of autism since Asperger's work in 1940s Nazi Vienna, autism functions as a prototypical figure of disconnection from the real world, if not of poverty in world. Autism has become the symbol of a life not worth living, one devoid of social connections, echoing the speciesist representation of nonhuman animals like the bee in Heidegger. That autism, in the

[261] Jakob von Uexküll, *Theoretische Biologie*, Berlin: Gebrüder Paetel, 1920, p. 183, cited in Brentari, *Jakob von Uexküll*, p. 27.
[262] According to Vinciane Despret, 'the theory of the Umwelt is mostly fruitful for relatively simple animals, namely, those for whom the number of affects that define them are rather limited, those who are no doubt the most familiar strangers to us'. Vinciane Despret, *What Would Animals Say If We Asked the Right Questions?* Minneapolis and London: University of Minnesota Press, 2016, pp. 162–3.

metaphors by Winthrop-Young and Espahangizi, is described as the prototype of animal being-in-the-world, shows how prevalent a dehumanising view of autism is in our dishuman modernity.

Are autistic people stuck in bubbles of isolation which prevent them from ever connecting to others and to the world? If we take Uexküll's bubble metaphor seriously – which is all but an innocent metaphor – things may appear a little differently. Indeed, if we extend the bubble metaphor, we find that the soap bubble of the female tick is not as large as that of the dog, let alone the – neurotypical, able-bodied – human being. Here, the size of the bubble is correlated with the number of functional circles, and with more complexity comes larger sizes of bubbles. This is not to attribute normative value to a bigger bubble, something that Uexküll himself never does, as he is truly fascinated by and respectful of the female tick's Umwelt. Darwinian evolution also rejects such an idea and describes all forms of life as equally fitted to their environments. Rather, this suggests that the richer one's being-in-the-world (or Umwelt), the more opportunities to connect with one's surroundings, but also the more chances (or risks) of transformation one faces.[263] Conversely, more minimal forms of being-in-the-world (smaller Umwelten) echo a more instinctive functioning, alongside less spontaneity and openness to change.

This figuration of harmonious, stable being-in-the-world through soap bubbles also shows in the physics of soap bubbles. Reading a biological theory like the Umwelt alongside a physics metaphor is, admittedly, quite risky. Classical physics and chemistry answer to natural laws that are immutable and mathematical, which do not exhaust the description of biological and psychological phenomena. Therefore, by offering to read Uexküll's bubble metaphor through physics, I am not trying to reintroduce a form of reductionism in Umwelt theory. Rather, I am hoping to read the metaphor against itself as a means to evidence its internal contradictions.

For instance, the fascinating spherical shape of bubbles is also the most stable one, requiring the least amount of energy to maintain, compared to other geometrical shapes. In a sense, the bubble is the shape that is best equipped to weather an environment of physical forces and pressures. Similarly, smaller bubbles take less time to shape into perfect spheres than larger bubbles, as if having less matter to work with – one could say lesser amounts of functional circles – means one requires less effort and energy to harmonise oneself. Larger bubbles seem to need more time to become spherical, adopting in the meantime a variety of distortions, when they don't downright pop.

[263] If anything, it is indeed the possibility of transformation – and with it, contamination – which comes with the relationality between complex Umwelten, that Uexküll disapproves of.

This also holds for the more dynamic process of bubble-blowing.[264] Indeed, when one blows a soap bubble, the more one blows, the more air and soap are added to the bubble. While the bubble grows in size, if soap were to be lacking, the bubble would be left with increasing volumes of air for the same amount of soap. The bubbler's soap surface would thus become finer and finer until the bubble breaks. Once the bubble has stabilised and goes on its own journey, it can no longer change shape or size. Bubbles can interact and cross, but as they come to share a common soap surface, the risk of their inner air bursting out, leading to an explosion, increases.

Finally, smaller bubbles display less soap surface, which can be construed as less interaction with the surrounding environment [*Umgebung*]. Conversely, larger bubbles have larger surfaces of connection with the outside environment, which makes them more subject to having external physical forces applied onto them. This could be why smaller bubbles distort less than larger ones: smaller bubbles seem more stable and steadier, while larger bubbles appear more fragile.

In the physics of soap bubbles, everything therefore seems to function as if simplicity and disconnection came with predictability and higher *conformity to the plan*, while complexity brought hazard and the potentiality of failure, something Uexküll seemingly missed – or neglected to mention – when introducing this physics metaphor in his biological theory of the Umwelt. To return to animal being-in-the-world, one could say that smaller Umwelten, which amount to fewer interactions with the unpredictable outside world, are steadier and more assured. The more complex animal forms, among which mammals, display more spontaneous behaviour, and as a result, are more prone to both freedom, worry,[265] and ultimately, psychological decompensation.[266]

Surely, Uexküll's theoretical biology never argues that some animals are more connected to their surroundings than others, nor does he explicitly claim a hierarchy of beings. Paradoxically, his preference (as an aristocrat) goes for the tick and her predictable world, reversing the usual scale of nature where the human ranks on top and the insect much lower. In this sense, taking the soap bubble metaphor literally (and, in a sense, autistically?) confirms the hypothesis of anxiety about disharmony in Uexküll's thinking: Uexküll chooses life forms and physical forces (the tick and the soap bubble) that are most stable and predictable – though never safe from disorder or disharmony.

---

[264] Here, one should remember that whereas blowing bubbles is an activity where an external subject could freely determine the size of its bubble, the soap bubbles of Uexküll's Umwelten are not of theological origin but answer to the *plan of nature*.
[265] See Burgat, *Liberté et inquiétude de la vie animale*.
[266] See Florence Burgat, *L'Inconscient des animaux*, Paris: Seuil, 2023.

As such, while Uexküll doesn't claim a hierarchy of beings, he does make theoretical and epistemological choices that align with his normative and political preferences. This being said, while Uexküll's conservative views may explain his belief in a harmonious monadism and his fascination with the tick, Winthrop-Young and Espahangizi's critique of said monadism demonstrates their problematic understanding of autism and the ease with which they lend it to comparisons with the female tick's Umwelt. In this sense, it might be true that the autism metaphor for the Umwelt evidences a pervasive tendency to dehumanise autistic people in society. To be clear, this reading of autism into Umwelt theory is overtly parasitical: while Uexküll's views lied with fixism and plan teleology, my reading of the soap bubble metaphor through the physics description of bubble-blowing reintroduces contingency and unpredictability in Umwelt theory, including the risk of Umwelt collapse.

In doing so, I am not only trying to say something new about the anxieties that haunt Umwelt theory and its recent commentaries based on an autism metaphor, but I also seek to make room for another interpretation of the phenomenology of being-in-the-world of animals and humans. While Uexküll's views lend themselves to a very transcendental and fixist approach to phenomenology, the reading I just offered ventures into the territory of a post-humanistic phenomenology of being-in-the-world. Post-humanistic perspectives, as might become clear in the next chapter on Kurt Goldstein, integrates relationality between the organism (or subject) and its environment (or world) as a dynamic field of becoming where openness and closure are never separable.

This has direct consequences for a potential phenomenology of autism. If it is true that animals with larger Umwelten are more sensitive to the outside world than animals with smaller ones, autistic people might be positioned along the hypersensitive rather than the less sensitive. Rather than being an example of monadic solipsism or invariant solitude, autistic asociality and withdrawal might be the result of a negotiating agency attempting to make the surroundings make sense again within the self's Umwelt, to bring forth a more bearable equilibrium of inside and outside forces. In this context, opening to a world is never a safe option: psychological stability relies on the ability to grant *meaning* to one's surroundings, which can become impossible when they change too much too fast.

In short, autistic people are too often represented like the female tick, like people who do not care or perceive alterity and change, who are 'poor in world'. Yet autism might be the very prototype of complex animal being-in-the-world, or, in more posthumanist terms, of 'insurgent vulnerability'[267] *vis-à-vis* the material environment. Whereas the tick is left unbothered by meaning*less* stimuli, autistic perception is sometimes said to be characterised by an inability to

[267] Alaimo, 'Insurgent Vulnerability'.

filter stimulation, by a hyper-processing and hyperperception of all stimuli, whether meaningful or not. As such, autistics are often subjected to experiences of sensory, cognitive, or emotional overload, which themselves can lead to serious forms of autistic shutdowns, meltdowns, and burnout. Next, I move to the Intense World theory, a recent conceptualisation of autism focused on vulnerability to the outside world and its dynamic effects, which was decisive in my parasitic reading of the Uexküllian metaphor of the soap bubbles.[268]

b) **Autistic Bubbles as a Pathological Reaction in the Intense World Theory**

Henry Markram and Kamila Markram, a couple in life and neurobiology, introduced a new theory of autism in 2010.[269] Instead of accounting for specific traits of the autistic experience, they came up with a unifying model seeking to account for most, if not all, traits of autism. Similar to Uexküll, the Markrams based their model on biological data, specifically neurobiological and experimental lab data. Most of the findings of the Intense World theory come from results obtained through the inoculation of valproic acid (VPA) on rodents,[270] said to elicit autistic behaviours in said animals, thus allowing researchers to consider this a viable animal model of 'autism spectrum disorder'.[271]

From there, Kamila and Henry Markram enacted invasive and non-invasive empirical observations of brain neurobiology in VPA-exposed rodents. They conclude that this experimentation 'provided the potential cellular and circuit explanation for how an autistic brain could be easily trapped in a painfully intense world, potentially explaining a broad range of common autistic symptoms'.[272] More specifically, it led them to suggest a new scientific understanding of autism, departing from deficit rhetoric to a logic of hyperness: they emphasised the hyper-reactivity and hyper-plasticity of local neural microcircuits, which

[268] Funnily enough, the Intense World theory of autism has been presented by autistic researcher Evelyn Ramiel as a 'descri[ption of] the autistic *umwelt* or life-world' in Evelyn Ramiel, 'The Autistic Process: Research Through the Overwhelming', *Environmental History Now: A Platform on Representation, Engagement, and Community*, 10 April 2019, accessed 10 February 2026. https://envhistnow.com/2019/04/10/the-autistic-process-research-through-the-overwhelming/.
[269] See Kamila Markram, and Henry Markram, 'The Intense World Theory: A Unifying Theory of the Neurobiology of Autism', *Frontiers in Human Neuroscience*, vol. 4 (2010), pp. 224–9.
[270] See Henry Markram, Tania Rinaldi, and Kamila Markram, 'The Intense World Syndrome: An Alternative Hypothesis for Autism', *Frontiers in Human Neuroscience*, vol. 1 (2007), pp. 77–96.
[271] See Markram and Markram, 'The Intense World Theory'. The Markrams acknowledge that 'naturally, there is a vast gap between an animal model and autism that is currently only recognized for humans' (p. 1), yet, they argue that 'many of the high-level cognitive functions [which are relevant in the study of autism] can also be observed and measured in much lower mammals such as rats and mice' (p. 3) because of the neo-cortex structures we have in common. See also the section '*Animal models of autism*' in Markram et al. 'The Intense World Syndrome', p. 79. See Chapter 6 for an examination of the role played by nonhuman animals in the elaboration of human autism science with the use of animal models.
[272] Markram and Markram, 'The Intense World Theory', p. 1.

translate cognitively as hyper-perception, hyper-attention, hyper-memory, and hyper-emotionality.

In other words, rather than assuming that autistic people have deficits in cognitive and affective empathy, in Theory of Mind, or central coherence and processing of information, the Intense World theory instead argues that autistics display 'excessive' processing of *all* information. This new insight in the scientific study of autism is, however, not radically new, as the community-made – and, I would add, largely feminine or feminised – figures of the empath and the hypersensitive evidence. For a long time, many autistic people have indeed been questioning the accuracy of the scientific conceptions of autism articulated in deficit terms. In this regard, Intense World theory might appear to be little more than an attempt at making scientific research more cohesive with the first-hand experience of autistic people.[273] Consequently, the theory has enjoyed a fairly positive reception within the autistic community, which saw in it a refreshing perspective on autism within the scientific field. Perhaps this comprehensive and more generous approach to autism by the Markrams stems from their living with Henry's autistic son, Kai, and from Henry's own autistic traits.[274]

The hyper-functioning of parts of the nervous system, described as characteristic of autistic neurobiology, implies that autistic people's lived experience of the outside world is *intense*, sometimes unbearable. Instead of solitude, disconnection, or even solipsism, autistic experiences are reframed as intense perception and processing of one's surroundings. The Intense World theory provides an understanding of autistic being-in-the-world that is better aligned with the physics of soap bubbles and Florence Burgat's thesis of the freedom and restlessness of animal life, where the larger and more complex the connection with the surrounding environment, the more vulnerable one can be.[275]

Although one could argue that the modern world, in its intense, vibrant, and unpredictable materiality, is more likely to cause struggles for autistic individuals, in the Intense World theory, the experienced intensity is said to emerge from an excessive processing of information

[273] See Lorenz Wagner, *The Boy Who Felt Too Much: How a Renowned Neuroscientist and His Son Changed Our View of Autism Forever*, New York: Arcade, 2021, Chapter 5, para. 9–18. I was only able to access this reference in the EPUB version; for this reason, the citations are referenced using paragraph numbers.

[274] See Wagner, *The Boy Who Felt Too Much*, Chapter 4, para. 33–5; Chapter 2, para. 37; Chapter 7, para. 2–23. In section 3 of chapter 1, however, Wagner shows that Henry Markram was already fascinated with autism before, which he considered as one of the 'scourges' of the time (para. 11).

[275] Based on a re-reading of Hegel's philosophy of nature, Florence Burgat argues that animal life is characterised by an ontological form of freedom. Being disconnected from the ground allows animals to move freely, and this freedom of spontaneous movement comes with the need to search for food and shelter. In this way, freedom comes with an ontology of restlessness: animal lives are filled with existential worry towards death, which Burgat contrasts with the more peaceful nature of plant life. In her most recent work, Burgat has examined animals' psychological lives. She has shown that psychological disorders (so to speak), but also states of unease and discomfort, correlate with this freedom to connect with the world. To have a nightmare, she explains, one must first be capable of dreaming. See Florence Burgat, *Liberté et inquiétude de la vie animale*, *Une autre existence*, and *L'Inconscient des animaux*.

and stimulation, that is, as an effect of the nervous system. To some extent, this key notion from the Intense World theory echoes the posthumanist phenomenological model of embodiment as a radical interconnection with the material world, whose outlines I sketched out above.

Whereas in Uexküll's theory, the fact that Umwelten function like closed-off bubbles defines the standard, prototypical mode of being-in-the-world of animals and humans, in the Markrams' theory, autism is presented as a different, disordered response to an intensely experienced world. For both neuroscientists, such a response is understood as pathological and should, at best, be prevented or at least alleviated.[276] In other words, it is because autistics experience the 'real', unique material world intensely, because their organisms 'respond excessively to environmental stimulation',[277] that they are led to 'retreat into a bubble, where everything is safe, there are no surprises, and all is under control'.[278]

This hypothesis, which turns autistic bubbles into dynamic biological functions, steers away from the mechanistic pathological framework, which views autistic disconnection and repetition as autonomous symptoms with no functionality. This articulation of the bubble as a defence mechanism makes it a second-hand reaction, rather than the core of an autistic being-in-the-world. It is thus closer to the humanistic phenomenology of psychiatric 'diseases', where closure and withdrawal are understood as meaningful ways of dealing with one's experience, while being simultaneously considered pathological.

The authors explain that the hyperprocessing of external information and stimulation, coupled with heightened emotional experiences, makes for higher vulnerability. They show that the VPA-exposed rodents 'exhibited amplified fear processing and memories [...] which indicated that fragments of the world could easily become emotionally aversive and be stored excessively'.[279] This means autistic people are likely to store memories of unpleasant experiences for a longer time and with higher intensity than allistic people. This could undoubtedly explain the autistic tendency to strictly avoid unpleasant stimuli and situations in favour of more pleasant ones, and to form 'behavioral routines'.[280]

Conversely, autistic intensity, that is, autistic hyper-functioning of neurological processes, is viewed as the basis of higher-than-average cognitive abilities, described as a core element of autism not only in so-called 'autistic savants' but also in more 'hindered' autistics. In fact, such heightened isolation and intensity of autistic 'symptoms' (in the Markrams' terminology) are understood as the result of an even higher level of hyperfunctioning, which

[276] Markram and Markram, 'The Intense World Theory', p. 19: 'The disorder might even be preventable if intervention begins before the 'intense world' reaction is triggered.'
[277] *Ibid*., p. 8. The authors made 33 occurrences of words like 'excessively' or 'excessive' throughout the article.
[278] Wagner, *The Boy Who Felt Too Much*, Chapter 4, para. 21.
[279] Markram and Markram, 'The Intense World Theory', p. 1.
[280] *Ibid*., p. 13.

requires a correlatively higher degree of self-protection. Rather than simpler individuals with smaller bubbles, those once referred to as 'low-functioning' autistics would display a higher cognitive potential, a much greater ability to interact with and process their surroundings, and thus, metaphorically, a much larger world bubble.[281]

The Intense World theory thus appears to divide autism into two dimensions, a positive and a negative. The positive, defined by the extraordinary capabilities of autistics, which results from their hyperfunctioning neurobiology, is embraced because of its potentially great contribution to society. The negative dimension can be summed up by the phrase '"intense world" reaction', which refers to the protective response through which autistics tone down their environment and make it more predictable. It is at the same time acknowledged as a legitimate functional response to an intense world *and* rejected because of the way it hinders the expression of autistic genius. Deemed preventable by the Markrams, this allegedly unfortunate side-effect of autistic neurobiology should, when possible, be avoided.

This dual definition of autism is, in some ways, fairly ambiguous in the written descriptions of the Intense World Theory. In some instances, 'autism' seems to refer to the pathological reaction only, with its resulting lived world. In others, it appears to include individuals who avoided the reaction, with their special talents. On the one hand, the Markrams and their colleagues seem to claim a neurodiversity approach, in which autism is acknowledged as a complete mode of being-in-the-world;[282] on the other hand, they seem to distinguish non-pathological aspects, being mere 'traits' and not the real thing.[283]

Whatever the case, the Markrams offer guidelines for therapeutic and clinical practices based on their theory, which differ from mainstream methods. They suggest one should not force autistic children into unpleasant environments through imposed exposure therapy, but rather allow them to live in toned-down, calm, and predictable environments. Diverging from the common behavioural methods in autism 'treatment', this approach could prevent the formation of damaging and long-lasting fear memories leading to defensive isolation in the autistic bubble. In this way, one should slowly get autistic children used to various forms of stimulation and information, in such a fashion that they always remain in control of their surroundings instead of passively enduring the situation. In other words, following the lexicon of Uexküllian phenomenology, it matters that autistic children are enabled to project *meaning* into their environment and make a tolerable Umwelt for themselves.

---

[281] This is something autobiographical and autoethnographic texts by nonspeaking autistics tend to confirm, with these autistic subjects presenting higher rates of synesthesia and object animism/personification. However, we should refrain from viewing these potential ontological (or, as I will argue in Chapter 6, ethological) differences as generalities, let alone drawing normative hierarchies and political conclusions from them.

[282] Wagner, *The Boy Who Felt Too Much*, Chapter 7, para. 23–25; Chapter 8, para. 34–40.

[283] For instance, Henry is curiously described as autistic in some passages, but not in others. Curiously, it seems that, for them, 'having autistic traits' is not necessarily seen as equivalent to 'being autistic'.

Again, this clinical approach is conceived as a temporary measure which ultimately seeks to integrate autistic people within the neurotypical world. The Markrams summarise their method by thinking: 'Okay, I first have to enter your world, and then, slowly, I can show you another world'.[284] I thus note, in the Intense World theory, remnants of ableism concealed behind epistemological generosity and a compassionate attitude.[285] In dissociating autistics from people with so-called 'lower' intelligence or capabilities – metaphorically, from the female tick's smaller bubble – the Markrams end up introducing a normative hierarchy based on ability. Indeed, their theory has been criticised for valuing autistics only insofar as they prove to be potential geniuses. Precisely, whether they are already gifted or hindered by the pathological reaction, autistics are valued in large part because they are deemed intensely capable of interacting productively with the world.

Although one might concur that some aspects of the 'intense world reaction', such as sensory overload, are not pleasant, and that autistic people could benefit from alleviating them while remaining autistic, the idea of preventing the reaction from emerging *in the first place* is disturbing. Admittedly, this goal is not always explicitly recognised by the proponents of the Intense World theory. Monica Favre, a behavioural scientist who worked for the Markrams, explains that 'the work I do in the lab is not about curing autism; it is about finding the biological reasons for its worst symptoms – the fear, for example. Find out where this fear comes from, if it's bad for the person, and then try to remedy it.'[286]

However, this contrasts with the ways Henry Markram describes the theory: to Kamila's point that 'you can reverse the symptoms of autism', Henry adds: 'and prevent autism from developing'.[287] This being said, in working towards the prevention of the 'intense world reaction', at times assimilated to autism itself, the Markrams and their colleagues are contributing to a world where the value and desirability of autism – as opposed to autistic people[288] – is conditioned to its productivity, where it shifts from a pathological reaction to a set of skilful and useful traits. Although the Markrams view the intense world reaction as meaningful – it is a sensible response to what the subject rightly considers a threat to its well-being – their theory still approaches the reaction as pathological: it does not provide the

[284] Wagner, *The Boy Who Felt Too Much*, Chapter 6, para. 35.
[285] *Ibid*., Chapter 2, para. 37: 'Henry and Kamila had also started in the wrong place. They would have never arrived in the autistic world, if Kai hadn't shown them the way. Everything had been turned around. They started in the hope of bringing him into their world. In the end, he opened up his.'
[286] *Ibid*., Chapter 8, para. 40.
[287] *Ibid*., para. 32.
[288] *Ibid*., Chapter 9, para. 15: 'Henry [...] has a boy right in front of him who is not highly gifted. But to [him], he is what every child is to their parents: the most valuable person in the world'. That said, the line between eradicating autism and eradicating autistic people is fine, and the eugenicist history of autism psychotherapy should keep us on our guard.

conditions for a productive (i.e. able-bodied, able-minded, and neurotypical) exploration of, and interaction with, the world.

The freedom of (hum)animal existence comes with worry and risk. With higher processing abilities comes a lower tolerance threshold. The idea that the intense world reaction should be prevented not only makes relationality a normative goal but relies on a neuronormative definition of *what* relationality should look like: to 'go to work someday, find a wife, and live a normal life, like everyone else'.[289] I argue that, behind an apparently 'progressive' vision turned towards the advancement of science and technology and the betterment of autistic people's quality of life, lies a cisheteronormative, patriarchal, and neoliberal ethos centred around the pioneer figure of autistic-*like* male CEOs, such as Bill Gates, Jeff Bezos, or Henry Markram himself.[290] This ethos pushes social matters into the background, outshone by the long-term goal of scientific and technological progress. It is even conceived as the most promising horizon for autistic life, to the point that the Markrams suggest the world itself wouldn't be what it is without pioneering autistics: '"Normies" didn't make our world what it is. The others did.'[291] With this approach, autistics finally leave their bubbles and shape the real, social world.

In contrast, the conventionally feminine practices of care and affectivity, while acknowledged by the Intense World theory through hyper-emotionality, are undervalued in terms of their beneficial contribution to society. The same can be said, to a certain extent, of the women in the Markram family, as portrayed by Lorenz Wagner's biographical narrative. Indeed, it is Kai's mother, Anat, who cares for him while Henry and Kamila work on their scientific research. In their duo, Henry receives most of the attention: it is he who is invited to give a TED Talk and who receives letters from laypeople about the Intense World Theory. Similarly, it is the Markrams' PhD student, Tania Rinaldi, who conducted most of the experimental research that led to the discovery of the intense world reaction, but her contribution is rarely emphasised in commentaries on the theory. Wagner's book also discusses stark differences in affective style in the Markram family: while Henry attempts to solve Kai's crises by trying to reason with him, Kai's sisters and mother are shown to know how to help him best, for example, by whispering comforting words or holding him tight. Similarly, Henry's authoritarian management style is justified by his scientific and entrepreneurial vision, assimilated to the genius of other white male CEOs.

[289] *Ibid*., Chapter 6, para. 18.
[290] *Ibid*., Chapter 7, para. 29–37. See also *Ibid*., Chapter 4, para. 51–2: 'Let's conquer everything', and 'Take off, conquer, discover the world'.
[291] *Ibid*., Chapter 9, para. 5.

The conception of autistic being-in-the-world presented in the Intense World theory calls for a parasitic reading of its own. While the theory presents a post/humanistic claim that autistic embodiment is fundamentally hypersensitive, we should resist its claim that autistic withdrawal is pathological. More specifically, one should remain critical of the Markrams' goal to prevent and eliminate the intense world reaction altogether, and of their emphasis on conventionally masculine and conservative aspects of autism.

My point with this reading is not to suggest that the curative approach offered by the Markrams stems from a rejection of the *weirdness* of autistic behaviour: what is at stake is not such a simplistic form of neuronormativity. More insidiously, the Markrams provide an understanding of autistic being-in-the-world that is reminiscent of existential-humanistic psychology, a field that Nick Walker deems more compatible with the neurodiversity paradigm than the pathology paradigm.[292] But in doing so, their approach also reinforces an ableist ideal regarding what autistic being-in-the-world should look like, namely, in their eyes, 'the vanguard of a world that thinks and feels different'.[293] Ultimately, the Intense World Theory gives itself up to a form of Aspie supremacy, an ideology that values autism only insofar as it integrates the norms of white, masculine productivity.[294] Replacing disconnection and solipsism with openness and hypersensitivity, the Markrams set up a normative ideal in which opening up to the world is valued and shutting down is pathologised.

CONCLUSION

This first chapter on Uexküll established the conceptual and methodological foundations of Part I and laid the groundwork for most of the conceptual work and arguments that this part develops. It introduced the thinking of a fundamental author in my corpus, whose work was studied and mobilised by Goldstein and Gehlen both. It became clear how the *Umweltlehre*, while inherently open to the diversity of animal forms, remains permeated by a structural conservatism that spans ontological, epistemological, and political domains.

The chapter further clarified the inspirations and workings of my methodology of parasitic readings, which I draw from Michel Serres. Beyond the common observation that the

[292] See Nick Walker, *Transformative Somatic Practices and Autistic Potentials: An Autoethnographic Exploration*, San Francisco: California Institute of Integral Studies, 2019, pp. 17–23. This insight has found an echo in this subsection with the idea of neurodivergence as a dynamic way of responding to one's environment, which I have called 'post-humanistic'. I examine these ideas in more depth in Chapter 2.
[293] Wagner, *The Boy Who Felt Too Much*, Chapter 9, para. 12.
[294] See Mel Baggs, 'Aspie Supremacy can kill', *Ballastexistenz*, 7 March 2010, accessed 11 February 2026. https://ballastexistenz.wordpress.com/2010/03/07/aspie-supremacy-can-kill/; Anna N. de Hooge, 'Binary Boys: Autism, Aspie Supremacy and Post/Humanist Normativity', *Disability Studies Quarterly*, vol. 39, no. 1 (2019).

history of philosophy is made of gestures of partial inheritances and reconfiguration, speaking of parasitic readings helps us emphasise the ways conceptual and political tensions are amplified and sometimes erased by the insertion of parasitic noise (e.g. the autism metaphor) into, and/or the abstraction of conceptual elements (e.g. the tick and the soap bubble) from, their original context.

In this regard, this chapter initiated one of the main theoretico-political proposals throughout this thesis, namely, the reclamation of minoritarian positions that bring together neurodivergence and animality, such as that of the autis/tick parasite. It argued that such dishuman and disanimal figures are not only additions to Uexküll's thought, but rather constitute the crystallised form of deeper tensions at work in the socio-political context of a dishuman modernity.

This allowed me to discuss the various, sometimes opposing genealogies of post/humanist philosophies that draw inspiration from Uexküll. By emphasising the breaks, shifts, and turns that made the Umwelt theory available for posthumanist readings, this chapter sought to pave the way for an alternative genealogy of posthumanism rooted in Uexküllian thinking – among others, the horizon of an Umwelt phenomenology – but also critical of its potential for harm.

In the next chapter, I offer parasitic readings of Kurt Goldstein's theory of the organism to further my understanding of the kind of dishuman modernity that unfurls when autism meets post/humanist philosophies of the human or animal (autistic).

CHAPTER 2 – FROM THE SICK TO THE AUTISTIC: KURT GOLDSTEIN'S THEORY OF THE ORGANISM

INTRODUCTION

In the foreword to the English re-edition of Kurt Goldstein's *The Organism* (1995), Oliver Sacks describes the book's author as 'one of the most important, most contradictory, and now most forgotten figures in the history of neurology and psychiatry'.[295] Just like Jakob von Uexküll, Kurt Goldstein's life and work appear infused with an essential polarity, in his case between philosophy and the life sciences, holistic and empirical methodologies, or abstract and concrete attitudes. While, for most of his life, Goldstein has maintained a 'subtle balance between minute empirical observation and theorizing',[296] even successfully articulating a synthesis of adversary trends, he nonetheless 'harbored throughout his long life [an] almost overwhelming doubleness in himself'.[297]

One example of this doubleness is found in the opposition between 'classical' and 'romantic'[298] approaches to neuropsychology. Neurology was historically constituted of two opposing trends. On the one side, some have argued that the brain serves separate and discrete functions, located in well-defined areas, or *modules*. On the other side, others have maintained that neural organisation functions through global principles that transcend the different areas of the brain. Kurt Goldstein was firmly critical of the former approach, which has long earned him (and still sometimes earns him, as we shall see) the reputation of being an anti-localisationist. Not content with positioning himself on the other side of the barricade, Goldstein had a plan to connect the two approaches, even if it meant risking being co-opted by one or both sides.

'Much of Goldstein's theorizing has to do with what he called "concrete" and "abstract" attitudes, the regression to a mindless concreteness (as he saw it) in many forms of neurological and psychiatric disorder.'[299] This includes autism, which Goldstein engaged with only late in his career, and which, as we will see, he described as a deficit in the abstract attitude. Throughout his William James lectures, later published as *Human Nature in the Light of*

[295] Oliver Sacks, 'Foreword', in Kurt Goldstein, *The Organism: A Holistic Approach to Biology Derived from Pathological Data in Man*, New York: Zone Books, 1995, p. 7.
[296] *Ibid*., p. 10.
[297] *Ibid*., p. 8.
[298] Soviet neuropsychologist Alexander Luria, cited in *Ibid*. Sacks notes that 'in his early career [Luria] was deeply influenced by Goldstein'. *Ibid*.
[299] *Ibid*., p. 10.

Psychopathology (1963), Goldstein affirmed that this *abstract attitude* constitutes the essential quality of human nature.[300] This abstract attitude allows humans to create order in their lives, while animals are characterised by their confinement to a *concrete attitude*. In doing so, I will show that Goldstein opens the way to a dehumanisation and animalisation of autistic people.

More interestingly perhaps, Goldstein's life seems torn between a professional commitment to the concreteness of scientific empiricism and a personal fondness for philosophical abstraction. The theoretical arguments that Goldstein developed in his later philosophical anthropology anchor his thinking in a traditional understanding of human exceptionality, which could be put in contradiction with his scientific ideal of experimental and existential empiricism. Not only permeated by an inner tension between concreteness and abstraction, Goldstein's work (and life) also appears constituted by an essential tension between order and disorder, with biographical patterns of migration and transition, which never allowed him to feel fully at home in the world. In this chapter, I offer a genealogy and parasitic readings of Goldstein's thinking until today, which seek to evidence a set of inner tensions – for instance, between an explicit autistiphobic positioning and contemporary arguments about his theories' neurodiversity-affirming potential, or between a philosophical and personal commitment to abstraction and a scientific duty of concreteness.

First, I introduce Goldstein's theory of the organism and its reception in twentieth-century French philosophy and US-American psychology to this day. Then, I offer my own parasitic readings of the theory of the organism to demonstrate their role in the development of a Western dishuman modernity that seeks to dispel the troubles of dis/harmony, dis/order, and parasitism.

I — The Theory of the Organism and Its Reception

In this first section, I examine the theory of the organism and its reception from Goldstein's time to this day. I begin with a short introduction to the theory, highlighting its key concepts and theses, for example, its rejection of a mechanistic and atomistic understanding of biology in favour of a holistic approach to the organism. I also discuss Goldstein's relationship with Uexküll's thought and the different horizon he adopts, namely, the development of a philosophical anthropology where human nature is defined from the perspective of pathology.

Then, I introduce Goldstein's reception in twentieth-century French philosophy, particularly in the work of Canguilhem and Merleau-Ponty. In this context, it appears the theory of the organism has largely contributed to the singular reception of Uexküll in France, so much

[300] Kurt Goldstein, *Human Nature in the Light of Psychopathology*, Cambridge: Harvard University Press, 1951.

so that Goldstein's reading of Uexküll coincides almost perfectly with the parasitic readings of Uexküll I examined in Chapter 1. This signals the centrality of Goldstein's thought for French philosophy of life, even when it has not achieved the same posterity as Uexküll.

Finally, I analyse the influence this theory has had on the development of US-American humanistic psychology through the work of Abraham Maslow and Carl Rogers, who were both highly influenced by Goldstein. Their reception of Goldstein relies on practices of translation and erasure, through which Goldstein's ideas have effectively been integrated into the ideals of American culture. Drawing on Patrick M. Whitehead, I show that some of the more-than-human aspects of Goldstein's theory were replaced by an anthropocentric and individualist perspective. I discuss Whitehead's thesis that Goldstein's work can lend itself to a nonhumanist or posthumanist psychological approach.

The genealogy of Umwelt theory from Uexküll himself to his contemporary readers was the story of multiple waves of popularisation and dissemination of Uexküll's ideas. On the contrary, while Goldstein's influence on continental philosophy and American psychology is well documented today, his theories could be described as obscured beginnings. In this section, I venture into the lineages of modern neurology, humanistic psychology, and philosophical anthropology by examining the parasitic readings that made Goldstein's thinking available for new interpretations and uses. Without seeking to rehabilitate Goldstein as the forgotten forefather of US-American humanistic psychology or French philosophy of the life sciences, I am interested in the parasitic genealogies that emerge when the influence of thinkers like Goldstein is swept under the rug or instead brought back to light. While Uexküll's Umwelt theory is on everyone's lips today, its conservatism is often erased from the story. Goldstein's thinking took a different path. Much overlooked, it has nonetheless influenced various traditions of thought which underpin contemporary approaches that claim no direct affiliation with Goldstein.

1. Introducing Kurt Goldstein's Theory of the Organism

Kurt Goldstein (1878-1965), a German neurologist and psychiatrist, developed an influential theory of the organism rooted in a philosophical biology,[301] which he later turned into a philosophical anthropology. Encouraged by his father to study medicine despite his love for philosophy, Goldstein was introduced to neurology and psychiatry at the close of the nineteenth century. During the First World War, he studied brain-injured soldiers at a military hospital and

[301] See Marjorie Grene, *Approaches to a Philosophical Biology*, New York and London: Basic Books, 1968.

made lasting contributions to the science of aphasia, apraxia, and other neurological disorders. He then worked at the Neurological Institute in Frankfurt am Main, where he would become acting director in 1922. These early steps in his career earned him recognition as 'one of the most eminent neurologists in Weimar Germany'.[302]

In 1933, with Hitler's appointment as chancellor, Goldstein was targeted by the Nazi regime due to his Jewish heritage. After a brief imprisonment, Goldstein fled to Amsterdam, where he wrote and published his masterpiece, *The Organism: A Holistic Approach to Biology Derived from Pathological Data in Man*.[303] In this book, Goldstein developed the views which would lay the ground for his important contributions to neurology, biology, psychology, and philosophy throughout his academic career. After a year in the Netherlands, Goldstein finally received a visa and emigrated to the United States of America in 1935. There, he occupied several positions as a researcher and clinician in neurology. In this new professional context, he managed to make a place for himself by translating his book – and his ideas – into English and, more importantly, into the realm of US-American psychology. His renowned expertise in neurology and his reputable skills as 'the first neuropsychotherapist'[304] would earn him a prolific career, albeit tinged with the lasting feeling of having forever lost a sense of home.

Trained in neurology, Goldstein took issue with the current paradigm in the life sciences. Notably, in *The Organism*, he provided a critique of mechanistic and reductionist methods in biology, particularly neurology's reflex theory and its localisationist tendencies. The problem with the reflex theory, in his eyes, lies in its tendency to embrace an atomistic view of the organism: 'According to the view underlying the reflex theory, the organism represents a bundle of isolable mechanisms that are constant in structure and that respond, in a constant way, to events in the environment (stimuli).'[305] This atomistic view also relied on a fairly deterministic and essentialist understanding of biology. Indeed, it is 'by virtue of a pre-established neural circuit'[306] that the organism was assumed to convert given stimuli into behaviour. As Goldstein aptly remarked, '[t]his is the view held not only of the nervous system but also of all phenomena. For example, even chemical processes are considered as related to the activity of very definite mechanisms'.[307]

---

[302] Agathe Camus, Marco Dal Pozzolo, and Charlotte Gilart de Keranflec'h, 'Kurt Goldstein : biologie, anthropologie, clinique. Introduction', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), p. 5. My translation.
[303] Or, in the original, *Der Aufbau des Organismus. Einführung in die Biologie unter besonderer Berücksichtigung der Erfahrungen am kranken Menschen*, published in 1934.
[304] Stefan Frisch, 'Entwicklung durch Begegnung – Kurt Goldsteins Beiträge zur Psychotherapie', *Der Nervenarzt*, vol. 90, no. 3 (2018), pp. 299–305, cited in Iván Moya Diez, 'Coming to Terms with "Self-Actualization": The Reception of Kurt Goldstein in Humanistic Psychotherapy', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), p. 58.
[305] Goldstein, *The Organism*, 1995, p. 69.
[306] Renaud Barbaras, *Vie et intentionnalité. Recherches phénoménologiques.* Paris: Vrin, 2012, p. 172. I translated this and all later citations of this reference from French.
[307] Goldstein, *The Organism*, 1995, p. 69.

When it comes to this reflex theory, the key elements of a mechanistic approach are combined: the search for constants and laws that can predict behaviour. In concrete terms, this means that the nonhuman animals used by experimenters to learn about normal and pathological neurology in humans are no longer perceived as individuated subjects with their own preferences and idiosyncrasies, but as 'specimen[s]: interchangeable element[s] within a set in which all elements are identical.'[308] In this approach, the animal subject becomes nothing more than a representative of its species.

As Florence Burgat and Jean-François Nordmann have independently argued, Goldstein's critique of the reflex theory not only challenged the traditional understanding of the reflex, but it also turned it on its head by demonstrating that even the smallest reflexes – like the knee jerk – can already be understood as proper behaviours.[309] Indeed, as Goldstein noted, contrary to what the theory of the reflex affirms, one stimulus always gives rise to a diversity of responses. This is true not only across organisms, but also in the same organism based on the 'modification of [its] general state, of its posture, of its tension, of the configuration of its motor activity…'.[310]

With respect to the theory of localisationism, Goldstein is often described as one of its strongest opponents. Localisationist approaches sought to associate specific symptoms with discrete areas of the brain. Not only was Goldstein critical of the 'symptom-determination, diagnosis, prognosis method',[311] which relied on a simplistic understanding of syndromes and symptoms, but he also challenged the idea that only one brain area is responsible for given behaviours. In doing so, Goldstein opposed 'the reduction of scientific research to brain-based explanations',[312] or what we might call neuroreductionism today (see Chapter 5). Instead, he held that disordered or pathological behaviour is a meaningful attempt, by the whole organism, to solve the problem posed by unrealistic demands from its environment. As such, it is 'the organism as a whole',[313] and not only the brain, that is involved in adapting and responding to evolving situations. This is particularly visible in the fact that Goldstein rarely spoke of *cerebral plasticity* (or neuroplasticity) and preferred to use the phrase 'plasticity of the organism'.[314]

---

[308] Burgat, *Une autre existence*, p. 141.
[309] See Jean-François Nordmann, 'Le renversement opéré par Kurt Goldstein et par Erwin Straus : le réflexe comme comportement', in *Penser le comportement animal. Contribution à une critique du réductionnisme*, ed. Florence Burgat, pp. 171–91, Paris and Versailles: Éditions de la Maison des sciences de l'homme and Éditions Quæ, 2010.
[310] *Ibid*., p. 177, my translation.
[311] Patrick M. Whitehead, *Existential Health Psychology: The Blind-Spot in Healthcare*, Cham: Springer, 2019, p. 6.
[312] Patrick M. Whitehead, *Psychologizing: A Personal, Practice-Based Approach to Psychology*, Lanham and London: Rowman & Littlefield, 2016, p. 59.
[313] Goldstein, *The Organism*, 1995, pp. 40, 58, 67, 101, 105, 160, 164, 167, 173, 176, 245, 246, 291, 336, 347, 353.
[314] See Kurt Goldstein, 'Über die Plastizität des Organismus auf Grund von Erfahrungen am nervenkranken Menschen', In *Arbeitsphysiologie II Orientierung · Plastizität Stimme und Sprache. Handbuch der Normalen und Pathologischen Physiologie*, ed. A. Bethe et al., pp. 1133–74, Berlin and Heidelberg: Springer, 1931, cited in Charlotte Gilart de Keranflec'h, 'Goldstein et la médecine physique et de réadaptation. L'expérience de la vie

Nonetheless, it is becoming increasingly clear that Goldstein's perspective was as critical as it was dutiful to the localisationist method.[315] After a brief adhesion during his formative years, Goldstein grew increasingly critical of that approach.[316] Although he grew cautious of the more extreme forms of localisationism, Goldstein ultimately endorsed only a more moderate version. Specifically, he distinguished the locating of (brain) *defects*, which he approved of, from the locating of (cognitive or behavioural) *functions*, 'which he dismisse[d] as chimerical'.[317] With respect to functions, Goldstein was indeed more interested in what he called *performances* – related to the whole organism – than to nervous system activity only.

As Florence Burgat sums it up, it was the 'analytical approach'[318] – as he liked to call it – that the German neurologist was seeking to resist with his work, but that did not prevent him from dutifully engaging with the core tenets and methods of his discipline. More than mechanism, he challenged the mind/body dualism in biology and scientists' tendency to reduce organisms to the brain.[319] Instead, Goldstein regarded his patients as whole organisms, using what he would call a holistic approach.[320] In this approach, the organism is conceived as a psychosomatic – or psychophysical – whole, always in a relationship with its environment.

According to Renaud Barbaras, '[t]he original unity of the 'subject' and the 'object' defines the living, and so it is not a question of explaining how one relates to the other, but rather of understanding how each of the terms is constituted from the relationship.'[321] In that regard, much of Goldstein's holism can be traced back not to vitalism, but to *Gestalt* psychology.[322] This prompted Goldstein to develop experimental methods breaking from the standard procedures of mechanistic biology. Indeed, instead of working his way from the 'inferior' and individual elements of the body up to the whole body, he maintained that biology should start from the organism and its behaviour as a totality, before examining its parts in relation to the whole. In doing so, he argued, one could avoid losing sight of the organism's life and reduce the risk of interpreting it merely in mechanistic or physicochemical terms.

"malgré tout"', in Kurt Goldstein, *La Nature humaine à la lumière de la psychopathologie*, Paris: Les Belles Lettres, 2021, p. 109.

[315] See Marie Gaille, 'Qu'était-il en réalité, demandaient-ils, un médecin, un psychologue, un philosophe ?', in Kurt Goldstein, *La Nature humaine à la lumière de la psychopathologie*, Paris: Les Belles Lettres, 2021, pp. 11–37.

[316] See Camus, Dal Pozzolo, and Gilart de Keranflec'h, 'Kurt Goldstein', p. 6.

[317] Henry Hécaen and Georges Lantéri-Laura, *Évolution des connaissances et des doctrines sur les localisations cérébrales*, Paris: Desclée de Brouwer, 1977, p. 214.

[318] Burgat, *Une autre existence*, p. 134.

[319] See *Ibid.*, p. 125.

[320] In recent commentaries, scholars of Goldstein have noticed that mentions of holism appeared in the English translation of *The Organism* and bear witness to an evolution of Goldstein's lexicon and thinking after he immigrated to the United States of America. See Agathe Camus, 'Goldstein holiste ?', in Kurt Goldstein, *La Nature humaine à la lumière de la psychopathologie*, Paris: Les Belles Lettres, 2021, pp. 39–70.

[321] Barbaras, *Vie et intentionnalité*, p. 181.

[322] Burgat, *Une autre existence*, p. 135.

This holistic approach to the organism reflects on Goldstein's reconceptualisation of health and pathology. More than a difference in degree – the pathological being a statistical and quantifiable divergence from the norm – Goldstein perceived pathology as a difference in kind, that is, as a qualitatively different way of being. A reader of Uexküll, Goldstein borrowed the notion of Umwelt to describe the organism's lived environment, as opposed to its purely physical surroundings [*Umgebungen*]. He held that, when confronted with the recurring demands of its Umwelt, the disordered subject often fell short of meeting them. It is this mismatch between the new abilities of the injured or disabled person, on the one hand, and the continuing demands they face, on the other, that gives rise to the pathological response.

Unable to adjust itself to this new situation, the organism continues to live its life as best as possible. But Goldstein observed in his brain-injured patients that only the most basic and 'primitive' functions tended to remain. This is because, faced with a new, difficult predicament, the patient must choose between retaining their unlimited freedom of expression, which comes with an unrestricted milieu, but also with unmitigated suffering, or allowing a reduction of their freedom to alleviate suffering.[323] Many choose the latter, more or less consciously. In concrete terms, this translates into 'a reduction in the realm of possibility, a decrease in the potential for action by individuals, which tends to limit their operational margins'.[324]

Faced with a shrinking Umwelt, the organism has no choice but to create a new one that is better suited to its new condition. In doing so, the patient can develop a new way of interacting with the world, Goldstein argues. Pathological behaviours can thus play a crucial role in the organism's ongoing negotiation with its environment, which demands continual adjustment. Indeed, they constitute 'attempted solutions'[325] to the problem of disorder, not the disorder itself: their function is to help the organism regain control over the situation.

Here, Goldstein's taking up of the Umwelt directly contrasts with Uexküll's fairly static and monadic approach. Indeed, 'Kurt Goldstein questions the fixed and static quality of *Umwelten* and claims that what should be investigated further is the genesis of *Umwelten* through a set of not-predetermined activities and performances'.[326] In this regard, Goldstein offers an alternative to both Darwinian adaptation [*Anpassung*] and Uexküllian adaptive insertion [*Einpassung*], privileging a 'coming to terms' [*Auseinandersetzung*], that is, a dynamic negotiation with the surrounding world. In contrast to Uexküll's idea that harmony is achieved through the unity of perception and action within the functional circle, Goldstein believes that the organism is separated from the environment. This means that the harmony

[323] See Goldstein, *The Organism*, 1995, p. 341.
[324] Marco Dal Pozzolo, 'Santé et pathologie au prisme du milieu : les ambivalences de la pensée de Kurt Goldstein', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), p. 82. My translation.
[325] Sacks, 'Foreword', p. 11.
[326] Heredia, 'Jakob von Uexküll', p. 31.

between the two relies on the organism's performance [*Leistung*].[327] This process of coming to terms, enacted by the individual, reflects the organism's striving for self-actualisation [*Selbstverwirklichung*], which Goldstein regards as one of the primary – if not the primary – drives in living organisms.[328]

As we saw in Chapter 1, there is nothing more than contingency and metastability in the realm of Umwelt-making. As such, there are no guarantees for harmonious self-actualisation in a changing world, i.e. for reaching 'adequacy' [*Adäquatheit*]'.[329] While, in Uexküll's conception of nature as *Planmäßigkeit*, harmony is always already a given in well-formed Umwelten, in Goldstein's conception of organismic life as *Auseinandersetzung*, it is *achieved* through the formation of an Umwelt that matches the organism's essence. According to Goldstein, then, when the performance of self-actualisation is effective, the organism develops an ordered, healthy, and normal mode of interaction with the world. When the performance fails, a 'catastrophic' reaction ensues, which can lead to a state of pathology or disease.[330]

It took Goldstein a careful and scientific study of neurological disorders to understand normal functioning in living organisms. More than an epistemic tool, though, pathology constitutes in his eyes another way of being, a different biological state, to which the organism needs to adjust. In other words, whereas in a classic Uexküllian framework, harmony can be reached again through a restoration of the organism's species-specific *a priori*, defined as conformity to the plan of nature, for Goldstein, a new condition is brought forth by the state of disease or disorder, which calls for the transformation of the milieu itself:

> For this organism, the environment prior to its state of disease has become strange and disturbing so that the essential requirement to exist and to return to a state of new normality is to make for itself once more an adequate environment. If we consider in-depth the previous case, we see in reality that the order is restored with the creation of a new adequate environment and not by reverting to a previous or anterior order of the organism on its own. Consequently, the restoration of order obviously requires the activity of the organism.[331]

In this way, although Goldstein agrees with Uexküll on the harmony of the healthy organism's Umwelt, he insists that the organism's ability to perceive other signals, including pathogenic ones, can lead to disorder. This openness and vulnerability to the environment,

---

[327] See Agustín Ostachuk, 'The Organism and its *Umwelt*: A Counterpoint Between the Theories of Uexküll, Goldstein, and Canguilhem', in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, London and New York: Routledge, 2020, p. 162.
[328] Whitehead, *Psychologizing*, p. 158.
[329] Dal Pozzolo, 'Santé et pathologie au prisme du milieu', p. 84.
[330] Ostachuk, 'The Organism and its Umwelt', p. 162.
[331] *Ibid*.

which constitutes the ontological background for pathology, in turn grants the organism a form of freedom or agency in the face of said pathology – the opportunity to create a new order.[332]

Goldstein's understanding of medicine as a contribution to the patient's process of *coming to terms* with their environment casts a new light on normality and pathology:

> Normality, or the normal state, is the state in which the organism develops norms that allow it to respond adequately to its environment. Moreover, recovering health, that is, rehabilitation, consists of reaching a new order, a new normality, a new individual norm, which implies making for itself a new environment in which it can respond appropriately again.[333]

This approach, which appears centrally in Georges Canguilhem's philosophy, and particularly in *The Normal and the Pathological*, breaks from the traditional understanding of normality as a statistical index or as a 'regression to the mean'.[334] Normality, in Goldstein's perspective, refers to the ability of a given organism to develop a set of ordered and 'preferred behaviors'[335] that produce effective and productive engagement with its environment. Or, in Goldstein's own words: 'In an ordered situation, responses appear to be constant, correct, adequate to the organism to which they belong, and adequate to the species and to the individuality of the organism, as well as to the respective circumstances'.[336]

This is, ultimately, the core of Goldstein's philosophical biology: more than a drive towards self-preservation, it is a drive towards self-actualisation that prompts living beings to act and engage with the world. Based on this conception, Goldstein offers a fairly common notion of individual essence and human nature,[337] one that has permeated contemporary German philosophy, from *Lebensphilosophie* to vitalism and organicism, often as a free-spirited radicalisation and re-enchantment of Kantianism into a new metaphysics of life.[338]

In Goldstein's case, it is noteworthy that he never turns to irrationalism or vitalism despite those inspirations.[339] In spite of his proximities with phenomenology (notably Husserl), his noted Kantian leanings, and his nods to Bergson, Goldstein maintains the balance – or tension – between his holistic commitment (especially after his exile to the USA in 1935) and the

---

[332] This is precisely the idea that Florence Burgat takes up in her theory of the freedom and restlessness of animal life mentioned in Chapter 1.
[333] *Ibid*.
[334] Whitehead, *Psychologizing*, p. 146.
[335] Goldstein, *The Organism*, pp. 265–79.
[336] *Ibid*., p. 48–49.
[337] See Martin Dumont, 'L'anthropologie philosophique de Kurt Goldstein', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), p. 150.
[338] See for instance Harrington, *Reenchanted Science*.
[339] According to Renaud Barbaras, 'The fact that an organism is not composed of partial processes does not mean that it is animated by a vital principle. Indeed, it is generally because we begin by constructing the organism in parts that it is necessary to resort to a vital principle to compensate for the limitations of this assumption, that is, to connect the phenomena. The position of a vital principle generally leaves outside itself a material diversity governed by mechanical laws; conversely, by highlighting the co-belonging of the Whole and the parts in the organism, Goldstein can dispense with the need for such a principle.' See Barbaras, *Vie et intentionnalité*, p. 173.

scientific and experimental rigour of his discipline. But amidst this tension, Goldstein's clinical commitment to rehabilitating order in his patients is fuelled by his critique of the Freudian understanding of human nature as driven by a desire for stasis and neutral equilibrium. With his philosophical biology, 'Goldstein rather sees in every organism the search for a certain active imbalance, a risky and lively exploration, hence the emphasis on a fundamental drive towards self-actualisation which, as such, always has the potential to go further'.[340] Enough to (re)introduce parasitic noise in the clinical approach of the philosopher neurologist? This is far from certain.

Biographically as well as methodologically, it is indeed the tragedy and violence of the First World War that prompts Goldstein to reevaluate human nature.[341] In order to fully grasp human nature, its vulnerability first needed to come to the fore, and this is why, throughout his career, Goldstein devotes himself to studying human nature 'in the light of psychopathology'. While it becomes methodologically contingent on its opposite to be perceived (as opposed to being predetermined), human nature in Goldstein remains largely similar to the ways it had been described in the past. In other words, if Goldstein turns to human vulnerability and disorder, it is not so much to formulate an understanding of human nature as fundamentally vulnerable and disordered – one that could have anticipated contemporary feminist care ethics or crip theory – but rather as a tool that reaffirms the traditional idea of a specificity of man as free, rational, endowed with language and abstract thinking. To put it bluntly, for Goldstein, *disordered* humans act as the form that brings out the background of *orderly* human nature.

2. Parasitic Readings of Goldstein in Twentieth-Century French Philosophy

The reception of Goldstein in France from the twentieth century to this day has been largely advanced by philosophers, especially Georges Canguilhem and Merleau-Ponty. After a formal introduction to his work by Aron Gurwitsch in 1939-1940,[342] it is Canguilhem who contributed to his reception by promoting the translation and publication of *Der Aufbau des Organismus* in French.[343] Goldstein would play a decisive role in the development of Canguilhem's thesis on *The Normal and The Pathological* (1943), whose conceptions of health, pathology, and

[340] Dumont, 'L'anthropologie philosophique de Kurt Goldstein', p. 159. I translated this and all later citations of this reference from French.
[341] *Ibid*., p. 150.
[342] See Aron Gurwitsch, 'Le fonctionnement de l'organisme d'après K. Goldstein', *Journal de psychologie*, vol. 36 (1939), pp. 107–38; Aron Gurwitsch, 'La science biologique d'après M. K. Goldstein. À la mémoire de Adhémar Gelb', *Revue Philosophique de la France et de l'Étranger*, vol. 129, no. 3–4 (1940), pp. 244–65.
[343] Camus, Dal Pozzolo, and Gilart de Keranflec'h, 'Kurt Goldstein', p. 7.

normativity owe much to the German neurologist.[344] Beyond these concepts, Goldstein's epistemological reflections in *The Organism* would also influence Canguilhem's ideas about the knowledge of life in his eponymous work (1952). For both thinkers, biological knowledge reproduces the creative gesture of biological processes, characterised by self-actualisation.[345]

It is noteworthy that Canguilhem read Goldstein alongside Jakob von Uexküll. For instance, Canguilhem followed both Goldstein and Uexküll in rejecting the physicalist reduction of the organism's milieu, arguing instead that it is the organism that produces its own milieu. He notes: 'the relation between organism and milieu is reversed in von Uexküll's studies of animal psychology and in Goldstein's studies of human pathology'.[346]

More largely, Canguilhem constantly juxtaposes the two biologists, drawing parallels between 'Jakob von Uexküll's theory [of] the animal and Kurt Goldstein's [of] the sick'.[347] He argues that their respective contributions can greatly contribute to the formation of 'a [new] biological sense'.[348] But Canguilhem is introduced to Uexküll by Goldstein's *The Organism*,[349] and where Goldstein agrees or disagrees with Uexküll, so does the French philosopher. For instance, he approves Goldstein's reservations about Uexküll's idea that the living organism is not separated from its environment but always inscribed in a predetermined harmony with it.[350] Canguilhem is aware of the shift that Goldstein brings to Uexküll's thinking, and follows his impetus:

> Goldstein turned Uexküll's own ideas against him by arguing that an organism takes in from its Umwelt not only that which corresponds to its receptor world, but also potentially negative stimuli. For Canguilhem, Goldstein sees the Umwelt not as a closed bubble but as shaped by the activities and developments of the organism: this is what supposedly allows Goldstein to explain the development of pathologies and diseases.[351]

The notion of vital normativity developed by Canguilhem, namely the idea that living organisms create new biological norms to achieve stability and harmony in their relationship with the surrounding world, is therefore inspired by Goldstein's reading of Uexküll. Like him, Canguilhem believes that pathology lies in the organism's inability to institute new norms in adequation with the situation it finds itself in, aimed at reaching a state of self-actualisation.

---

[344] Iván Moya Diaz, 'Canguilhem avec Goldstein. De la normativité de la vie à la normativité de la connaissance', *Revue d'histoire des sciences*, vol. 71, no. 2 (2018), pp. 179–204.
[345] Canguilhem, *Knowledge of Life*, p. 9.
[346] *Ibid*. p. 110.
[347] *Ibid*., p. 71. To which he hopes to add 'a general theory of the milieu of man as technician and scientist' (*Ibid*.)
[348] *Ibid*., p. 111.
[349] Ostachuk, 'The Organism and its Umwelt', p. 158.
[350] See Canguilhem, *Knowledge of Life*, p. 177, n. 29.
[351] Schnödl and Sprenger, *Uexküll's Surroundings*, p. 198.

Merleau-Ponty, for his part, is introduced to Goldstein's work when he attends Gurwitsch's classes at the Sorbonne.[352] Goldstein profoundly inspires his early philosophy, though in a different way than Canguilhem.[353] It is mainly Goldstein's holistic and anti-reductionist approach that Merleau-Ponty borrows to develop his own critiques of the reflex theory and localisationism in *The Structure of Behaviour* (1934). In this book and the subsequent *Phenomenology of Perception* (1945), Merleau-Ponty's approach is indebted to Gestalt thinking, which he mobilises explicitly. He also offers direct engagement with Goldstein's early experimental research on brain-injured patients with Adhemar Gelb, and borrows Goldstein's concept of categorial attitude, also known as the abstract attitude.

More than isolated borrowings, Merleau-Ponty's relation to Goldstein proves decisive for the development of his own thinking, according to Brett Buchanan:

> If there is one constant source on which Merleau-Ponty draws in *The Structure of Behavior*, it is Goldstein's unique method of uniting biological, psychological, and physiological studies into a unified Gestalt theory of the organism. Goldstein's new method broached an important way of treating the human being as a whole, particularly with respect to the neurological and/or physiological disablement of individuals. […] As a physician, he found that most approaches to "abnormal" functioning relied too heavily on a fractured view of the human; none of the theories permitted an adequate view of the person as a whole. With this in mind, it is clear how Merleau-Ponty might be influenced by such a novel approach to the living being, especially in association with the Gestalt psychology of Kurt Koffka and Wolfgang Köhler.[354]

Contrary to Canguilhem, who reads and quotes *The Organism* already in *The Normal and the Pathological*, there are no mentions of it in *The Structure of Behaviour* or in *Phenomenology of Perception*. In Merleau-Ponty's courses on nature at the Collège de France from 1956 to 1960, however, *The Organism* makes repeated appearances.[355] Unsurprisingly, it is roughly at the same time that Merleau-Ponty begins to cite Uexküll.

Goldstein's particular way of taking up Uexküll's concepts, like the Umwelt, 'proved critical for Uexküll's reception by both Canguilhem and Merleau-Ponty'.[356] Goldstein's reading of Uexküll, while largely affirmative, has been described as 'a resumption of empirical results and the notion of *Umwelt*, which, however, is subjected to a theoretical reinterpretation in the

[352] María-Luz Pintos, 'Gurwitsch, Goldstein, Merleau-Ponty. Analyse d'une étroite relation', *Chiasmi International*, vol. 6 (2005), pp. 147–70.
[353] See Patrick M. Whitehead, 'Overcoming Parallelism: Naturalizing Phenomenology with Goldstein and Merleau-Ponty', *Progress in Biophysics and Molecular Biology*, vol. 119, no. 3 (2015), p. 502.
[354] Buchanan, *Onto-Ethologies*, p. 122.
[355] See Merleau-Ponty, *Nature*, p. 24, 152, 239.
[356] Tim Elmo Feiten, Kristopher Holland, and Anthony Chemero, 'Worlds Apart? Reassessing von Uexküll's Umwelt in Embodied Cognition with Canguilhem, Merleau-Ponty, and Deleuze', *Journal of French and Francophone Philosophy - Revue de la philosophie française et de langue française*, vol. 28, no. 1 (2020), p. 7.

sign of the concepts of *Auseinandersetzung* and *Adäquatheit*'.[357] This makes for a particularly parasitic kind of reading – a conception much more fluid and dynamic than Uexküll's.[358] As such, it is not accidental that both Canguilhem and Merleau-Ponty would, in turn, develop the kinds of parasitic readings of Uexküll described in Chapter 1. It is thus through Goldstein that their reading of Uexküll truly becomes intelligible, and in his footsteps, that they eventually become 'heirs and betrayers' of the *Umweltlehre*.[359]

This makes all the more sense as, despite their conceptual differences, Uexküll and Goldstein belonged to a similar school of thought, characterised by a critique of mechanistic and reductionistic approaches to biology and an emphasis on the organism-as-subject – albeit defined in minimal terms in Uexküll. Their differences aside, Uexküll and Goldstein (by Arnold Gehlen's side, in Chapter 3) take us back to a particular time in the history of continental philosophy of the life sciences, marked by a shared desire to anchor the theory of humanity and animality in a new, more encompassing philosophy of life: a philosophical biology. For this reason, the internal tensions we find in their lives and works could perhaps be understood as various declinations of the same melody, as variations of a similar form upon the same background.

3. Genealogies of the Theory of the Organism as (Neo-), Non-, and Post-Humanism

Following his forced exile to the United States of America, Kurt Goldstein had to translate his thinking – both linguistically and culturally – for US-American psychology readers, who were interested in other issues and frameworks than the ones he had engaged with up to that point. Despite a difficult start – in part related to Goldstein's limited proficiency in English – his 'strong reputation in Europe helped him secure temporary research and lecturing positions'.[360] The neurologist soon caught the attention of psychologists sympathetic to the holistic and organismic approaches, helping him earn a positive reputation in US-American psychology as well. In the first English edition of *Der Aufbau des Organismus*, Goldstein chose to add a subtitle: *A Holistic Approach to Biology Derived from Pathological Data in Man*. Along with

[357] Matteo Pagan and Marco Dal Pozzolo, 'From the Harmony to the Tension: Helmuth Plessner and Kurt Goldstein's Readings of Jakob von Uexküll', *History and Philosophy of the Life Sciences*, vol. 46, no. 9 (2024), p. 3.
[358] Pagan and Dal Pozzolo note that Canguilhem's insistence on the notion of *Auseinandersetzung* in *Knowledge of Life* 'reveal[s] his debt to Goldstein's reading of the *Umweltlehre*'. *Ibid*., p. 15.
[359] *Ibid*., p. 20.
[360] Moya Diaz, 'Coming to Terms with "Self-Actualization"', p. 60.

this linguistic translation, the book's contents themselves seem to have undergone a conceptual transformation, with Goldstein now explicitly embracing the 'holistic' label.

From the late 1930s through the 1950s, Goldstein inspired many humanistic psychologists who, like him, were dissatisfied with the mainstream positions in psychology at the time, namely behaviourism and psychoanalysis.[361] In the aftermath of the Second World War, the large number of veterans with mental health struggles prompted the administration to fund new training programmes for clinical psychotherapy. This allowed new approaches to psychotherapy to develop, among which is humanistic psychology. Abraham Maslow, who is currently regarded as the founder of humanistic psychology,[362] and his student, Carl Rogers,[363] explicitly drew on Goldstein's holistic theory of the organism. Famous for his theory of human needs and human motivation, Maslow would consider Goldstein's concept of self-actualisation as the underlying principle of his own theory. Contrary to Goldstein, whose inspiration primarily came from his experience in the clinic, Maslow had developed his scientific hypothesis in an experimental psychology setting, working with laboratory animals. He would soon grow dissatisfied with the reductionist methods commonly used in his field and perceived Goldstein's holistic methods as a new biological background and justification for his theories.[364]

But Maslow drew Goldstein's concepts in new directions, for instance, when he formulated a normative theory of human motivations and needs rooted in hierarchical thinking. More teleological and species-level than Goldstein's, Maslow's theory set out to establish the ultimate goals and stages of human development. This had concrete implications for the clinic. Maslow's approach to humanistic psychotherapy was explicitly aimed at guiding patients towards the normative developmental thresholds outlined in his hierarchy. This approach, as Iván Moya Diaz has argued, draws on 'individualist' and 'elitist' principles.[365] Yet it 'continues to be used as a major reference from basic psychology across different fields'.[366]

In this conception, it is assumed that only unhindered, authentic self-expression can lead the patient to self-actualisation. This means, according to Maslow and Rogers, that one must first 'liberat[e oneself] from social conditioning and learned restrictions from the

[361] Paradoxically, commentators have maintained that some of Goldstein's theories are 'directly influenced by' or 'akin to' the psychoanalytical conceptions of Freud. This nuances the idea that, in a context marked by the hegemony of psychoanalysis and behaviourism, Goldstein's perspectives made a complete U-turn from mainstream perspectives in US-American psychology. See, respectively, Elizabeth Wilson, *Neural Geographies: Feminism and the Microstructures of Cognition*, New York and London: Routledge, 1998, p. 126, and Jacques Hochmann, *Histoire de l'autisme*, Paris: Odile Jacob, 2009, p. 213. I translated this and all later citations of this reference from French.
[362] Whitehead, *Psychologizing*, p. 121.
[363] Moya, Diaz, 'Coming to Terms with "Self-Actualization"', p. 60.
[364] *Ibid*., p. 63.
[365] *Ibid*., p. 64.
[366] *Ibid*.

environment',[367] in order to fully realise one's inherent potential. In Goldstein, as we saw, it is rather a holistic process of *coming to terms*, a 'debate' between the organism and its environment, that paves the way to self-actualisation. Moreover, in Goldstein, self-actualisation should not be understood as an emancipation from the environment; instead, it necessarily emerges from a negotiation with it.

Carl Rogers, for his part, developed a *Client-Centred Therapy* also inspired by Goldstein's self-actualisation. In this approach, 'the organism constantly self-regulates itself according to the modifications of the environment'.[368] In this regard, Rogers kept his strand of humanistic psychology in closer proximity to Goldstein's perspective. Nonetheless, he did not really engage with this dynamic and hybrid interaction during therapy, instead focusing on the individual's innate abilities for self-regulation. Moya Diaz reports that Rogers' idiosyncratic reading of Goldstein has persisted in current forms of Client-Centred Therapy. This can be explained by the fact that the individualistic focus turns the patient into an expert of their own experience, thus decentring the therapist's expertise. Consistent with key features of US-American culture, the freedom afforded by the individualist approach is accompanied by a sense of personal responsibility. It contrasts with Goldstein's view that rehabilitation necessarily arises from empowering interactions with others.

Not only are Maslow and Rogers' approaches more individualistic – in line with US-American culture – but they are also more teleological and essentialising than Goldstein's. In this respect, their humanistic psychology reinforces a more traditional notion of a species-specific essence, or, put simply, of human nature. While in Goldstein, human nature is already defined in fairly conventional terms, there is at least an idea that the subject's potential is configured and constantly reshaped in the interaction with the environment. But in humanistic psychology as it developed after Goldstein, the notion of human nature traces back to the roots of humanist thought, in which the human is described – or rather, fantasised – as an autonomous and independent being.

This individualist approach to rehabilitation is radicalised in contemporary US-American culture, where it lends itself to new forms of liberalism, conservatism, and depoliticisation.[369] Called upon themselves to realise their true potential and express their *true self*, divergent and disabled individuals are simultaneously forced to adapt to ableist ideals of normality and social structures. Indeed, the rise of individual psychotherapy in the West came simultaneously with a decrease in social and institutional support.[370] At the same time, the humanistic approach has

[367] *Ibid.*, p. 67.
[368] *Ibid.*, pp. 67–8.
[369] *Ibid.*, p. 69.
[370] *Ibid.*

led to the development of communities of marginalised identities – in the way we speak of 'the autistic community', 'the LGBT community', 'the Latinx community', and so on – characterised by counterhegemonic forms of normativity. In this sense, humanistic thinking in the United States of America has fostered at once an individualisation of the social and a political culture of homogeneous and independent collective identities, in the manner of Uexküllian soap bubbles.

As such, the mainstream forms of humanistic psychology developed by thinkers like Maslow and Rogers differ from Goldstein's views. Indeed, they perform a peculiar synthesis of psychology and US-American culture, turning concepts like 'self-actualisation' into mainstream ideas far beyond the realm of psychology or psychotherapy.[371] Readers of Goldstein today, such as Iván Moya Diaz, are therefore calling for bringing Goldstein's original views back in focus within humanistic psychology and psychotherapy, as a way to remedy this individualist-liberal pitfall.[372] They suggest it might be an appropriate way of turning the page of a mainstream humanistic psychotherapy, which remains ill-equipped to deal with increasing social tensions and the anxieties that come with them.

Interestingly, humanistic psychology is one of Nick Walker's main sources of inspiration, especially in the development of his neuroqueer theory. In Walker's approach to neuroqueer theory, the concept of self-actualisation features prominently.[373] In his PhD thesis, for instance, Walker expands it through the notion of 'autistic self-actualization', understood as 'the embracing and authentic expression of the distinctive qualities of autistic embodiment, cognition, and experience'.[374] With this concept, one of the core analytics in the thesis, Walker makes an explicit connection to humanistic psychology: he cites Maslow seven times across the thesis; however, Rogers is not mentioned and, more importantly, neither is Goldstein.

Walker makes this affiliation with humanistic psychology very clear: 'my work in this inquiry is explicitly humanistic in its approach, and could be considered to be positioned at least partially within the discourses of humanistic psychology'.[375] It is noteworthy that the psychological tradition that inspires Walker to develop neuroqueer theory originates from Goldstein's thinking, yet increasingly fails to mention him or his ideas.[376] Indeed, Walker invokes common concepts from humanistic psychology in its Americanised form, such as the

[371] *Ibid*., p. 56.
[372] *Ibid*., p. 70.
[373] There are 57 occurrences of the term 'self-actualization' in Walker's PhD thesis.
[374] Walker, *Transformative Somatic Practices*, p. 284. A transfeminine person, Walker has long used she/her pronouns. In early 2025, however, he expressed his desire to return to he/him pronouns in professional contexts due to the present political climate of increased transphobia. I will follow that decision in this thesis.
[375] *Ibid*., p. 17.
[376] While Walker's thesis does not explicitly conceptualise neuroqueerness, it lays the theoretical foundations for the neuroqueer approach developed by Walker in *Neuroqueer Heresies* and, later, in the anthology *Neuroqueer Theory and Practice*.

ideas of the 'True Self' and its authentic self-expression, but also the recognition of its 'unique individuality and [of] the positive potentials inherent in that individuality'.[377] These theoretical orientations towards an Americanised humanistic psychology evidence a clear departure from Goldstein's more ecological approach, where the organism and its environment are never separable.

Another interesting point of divergence in this genealogy concerns the anthropocentrism of humanistic psychology in comparison with Goldstein's writings. While Goldstein did inspire humanistic psychology, this occurred within a specific historical and scientific setting in which much of mainstream US-American psychology was dehumanising and mechanistic. Accordingly, humanistic psychologists felt compelled to hold the line against these approaches, emphasising the necessity of humanising patients. According to Patrick M. Whitehead, while understandable in its original context, this stance has since become rigid, to the point of exhibiting excessive caution toward contemporary posthumanist and more-than-human trends in the humanities. Whitehead goes so far as to lament 'the cult of humanism in psychology',[378] and argues for a return to the ethos of openness and curiosity that first characterised the tradition of humanistic psychology.

In the same book, *Expanding the Category "Human": Nonhumanism, Posthumanism, and Humanistic Psychology*, Whitehead offers a useful genealogy of the concept of self-actualisation, from Goldstein to Maslow. He shows that, while Maslow elected to limit the concept to the human, Goldstein's initial intent was much more expansive. Indeed, Whitehead explains that self-actualisation in Goldstein should be understood along the lines of *Natura naturans*, which means that 'natural' bodies – including all living organisms, but perhaps also what we typically understand as inert matter – are the principle of their own action.[379] Whitehead reports that Goldstein attributed this inherent capacity for self-actualisation to these various beings, a conceptual orientation that, Whitehead argues, should open humanistic psychology to the field of biosemiotics. On the contrary, by introducing an intentional dimension into self-actualisation, Maslow effectively limits the concept to human organisms. More broadly, Whitehead notes that humanistic psychologists have tended to resist the expansion of their organicist views beyond the human by drawing an *a priori* 'line of demarcation between "whole organisms" that actualize, and the rest of the cosmos, which follows the laws of Newtonian mechanics'.[380]

[377] *Ibid*., p. 284.
[378] Patrick M. Whitehead, *Expanding the Category "Human": Nonhumanism, Posthumanism, and Humanistic Psychology*, Lanham and London: Rowman & Littlefield, 2017, pp. 19–32.
[379] *Ibid.*, p. 30.
[380] *Ibid*., p. 31.

Similarly, Walker's trailblazing contribution to neuroqueer theory remains anthropocentric in scope. It is not the purpose of this chapter to examine the anthropocentric aspects of neurodiversity studies in general, or neuroqueer theory in particular, nor to ponder how their origin in humanistic psychology could be subverted to encompass more beings than the human. These considerations will be further developed in Chapter 5. For now, it is sufficient to note that it is due to its affiliation with humanistic thinking and practice that most of the scholarly work done in neurodiversity studies remains mired in anthropocentrism.

Undertaking to expand the category 'human', and with it, that of the organism, Whitehead pulls Goldstein in the direction of posthumanism. His book advocates an object-oriented materialist approach in which both living and non-living beings are attributed a psychology.[381] Whatever one may think of this endeavour, it is significant that Goldstein plays a central role in it, both as inspiration and theoretical justification. Importantly, authors such as Whitehead have sought not only to align Goldstein's thinking with posthumanism but also to suggest that a form of proto-posthumanism or nonhumanism was already present in his work. Indeed, as I have noted, Whitehead contends that the trajectory of self-actualisation from Goldstein to Maslow (and other humanistic psychologists) is one of anthropocentric reduction. In the introduction to his book, Whitehead goes further. He explains that, for Goldstein, self-actualisation was 'a nonhuman process that applied to a variety of life-forms'.[382] Whitehead describes nonhumanism as the 'belie[f] that there is nothing special about humans',[383] a conception he borrows from Richard Grusin. Humans have always co-evolved with other living and nonliving beings in networks of interrelations that preceded them and will survive them. For this reason, the study of human biology is already a study of nonhuman phenomena: 'nonhumanism is the study of nature *before* and without humans'.[384]

Though he developed the concept of self-actualisation following clinical studies with *human* patients, Goldstein studied a biological phenomenon which he knew was not fundamentally human in nature, Whitehead argues. Instead, it related to the phenomenon of life. This does not necessarily make Goldstein a proto-posthumanist; the concept did not exist in his time, and he likely had no intention of decentring the human or resisting anthropocentrism. To Whitehead, his approach was rather nonhumanist in Grusin's sense.

Nonetheless, it would certainly be possible to trace a different genealogy for Goldstein's thinking, making it available for further posthumanist explorations. Indeed, with its anti-essentialist dimension and its emphasis on the organism-milieu relationship, the concept of self-

[381] For a posthumanist revisitation of organicism, see Audronė Žukauskaitė, *Organism-Oriented-Ontology*, Edinburgh: Edinburgh University Press, 2023.
[382] Whitehead, *Expanding the Category "Human"*, p. 13.
[383] *Ibid*., p. 12.
[384] *Ibid*.

actualisation lends itself to a posthumanist elaboration. Although Goldstein *did* develop a philosophical anthropology interested in adjudicating human nature (and with it, a form of human exceptionalism), some, like Whitehead, believe it was done in a non-deterministic fashion. Whitehead recognises that self-actualising means becoming who one is – namely, becoming oneself. Yet in contrast to Goldstein's humanistic readers, Whitehead holds that this process depends at once on individual potentials and on the context or situation in which one is inscribed.[385] As Goldstein himself explained, 'the "nature" of the organism, its "essence," […] is brought into actualization [*Verwirklichung*] through the environmental changes that act on it."[386]

In this sense, following Whitehead, we might trace another genealogy for Goldstein's theories, one that reaches back to Friedrich Nietzsche. It is well-documented that Nietzsche has inspired much of contemporary posthumanist philosophy, often via Derrida or Deleuze and Guattari. In the context that is relevant to my study, it is perhaps Nietzsche's conception of life as 'becoming what one is'[387] that most closely resonates with Goldstein's notion of self-actualisation. Moreover, drawing on his idea of an ontological separation between organism and environment, Goldstein developed the concept of performance [*Leistung*] enacted by the organism to achieve adequacy [*Adäquatheit*]. This notion of performance is suggestive of the concept of performativity, which Karen Barad introduced into posthumanist philosophy, drawing on Judith Butler, themself inspired by Jacques Derrida.[388]

Beyond posthumanism as a philosophical tradition, other scholars have also taken inspiration from Goldstein's thinking to develop philosophies of animality. Florence Burgat's philosophical ethology, for example, frequently borrows from Uexküll and Goldstein. In *Une autre existence. La condition animale* (Another Existence: The Animal Condition), Burgat draws on Goldstein's holistic theory of the organism to develop an ontology and phenomenology of animality. Specifically, in the chapter she dedicates to the organism as a 'psychosomatic totality in relationship', Burgat reminds us that Goldstein's conception of anxiety also applied to animals. This is because, in Goldstein's view, 'anxiety lies at the heart of life, permeating all organic life'.[389] This idea forms part of the theoretical backdrop to Burgat's philosophical ethology, which conceives animal life as fundamentally restless.[390] Goldstein is also invoked in Burgat's more recent work, *L'Inconscient des animaux* (The

[385] Whitehead, *Psychologizing*, p. 191.
[386] Goldstein, *The Organism*, 1939, p. 101.
[387] See Christine Daigle, *Nietzsche as Phenomenologist: Becoming What One Is*, Edinburgh: Edinburgh University Press, 2021.
[388] See Karen River Barad, 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter', *Signs*, vol. 28, no. 3 (2003), pp. 801–31.
[389] Burgat, *Une autre existence*, p. 162.
[390] See Burgat, *Liberté et inquiétude de la vie animale*.

Animal Unconscious), where his critique of the reflex theory underpins a chapter on the role of 'the unconscious in instinct and drive'.[391]

However, Burgat regrets that 'Goldstein left animals behind'.[392] Indeed, he formulated a philosophical anthropology in which the (normal) human is distinguished from the animal due to its capacity to embrace the contingency of existence, particularly through the abstract attitude. Nonetheless, Burgat argues that Goldstein's observations on his brain-injured patients can be extended to nonhuman animals, who are equally 'helpless in the face of the distressing situation'.[393] As evidence, she cites a passage in which Goldstein explains that this phenomenon of anxiety 'should not only be part of anthropology, but also of biology in the broadest sense of the word'.[394]

Paradoxically, then, while Goldstein's philosophy opens to animality, it remains in large part anthropocentric. According to commentators on Goldstein's philosophical anthropology, such as Martin Dumont, Goldstein indeed proposed a thoroughly traditional conception of the essence of the human and its difference from animals.[395] Goldstein indeed never strayed from the idea that human exception lies in the possession of language, rationality, or the much-vaunted abstract attitude. Furthermore, Dumont explains that Goldstein never questioned the human/animal dualism, which, it should be noted, constitutes one of the pillars of humanist philosophy:

> Similarly, the fairly traditional differences between humans and animals are never discussed by him: on the absence of transmission or attention in the animal world, of attention performed by animals, and on the community we can form with animals, even if we end up choosing to distinguish ourselves from them, very little is said on his part. Goldstein never considers how typically human behaviour can emerge from a common background with animals in which it is rooted, as Merleau-Ponty seeks to do in his reflections on behaviour in his lectures at the Collège de France.[396]

As such, and as I have already noted in my introduction to Goldstein's thinking, there seems to be a thoroughly (neo)humanist approach at play here. It is no wonder that humanistic psychologists found in Goldstein a useful inspiration: his philosophy is ultimately humanising only to the extent that it relies on classical dualisms between the human and the animal, or

[391] See Burgat, *L'Inconscient des animaux*, pp. 131–90.
[392] Burgat, *Une autre existence*, p. 163.
[393] Goldstein cited in *Ibid*., my translation. I was not able to locate this and the following citations in the English edition.
[394] Goldstein cited in *Ibid*.
[395] Specifically, in *The Organism* (p. 368), Goldstein describes the animal as 'far more bound to the outer world [than humans]; it lacks freedom and the possibility to set itself off from the world.' This conception directly echoes the argument developed by Martin Heidegger in *Being and Time*, later critiqued by Derrida. See Jacques Derrida, *The Animal That Therefore I Am*, New York: Fordham University Press, 2008, p. 151.
[396] Dumont, 'L'anthropologie philosophique de Kurt Goldstein', p. 163.

between ‘we normal people’ and ‘they’, disordered people. In this alternative reading, it would seem that Whitehead’s perception of a nonhumanism in Goldstein is either the result of a parasitic reading, or perhaps simply of the realisation that Goldstein was, indeed, *less* anthropocentric than his humanistic readers. Yet again, without seeking to settle the debates or police the contemporary uses of historical traditions of thought, my reading aims to complexify the genealogy of Goldstein’s reception in contemporary scholarship.

II — Parasitic Readings of the Theory of the Organism from the Sick to the Autistic

In the remainder of this chapter, I introduce the question of autism – and, more broadly, of disability and neurodiversity – in my discussion of Goldstein’s thinking. I seek to interrogate the theoretical construction of dis/order in the theory of the organism and, importantly, in Goldstein’s late philosophical anthropology. To this end, I develop my own parasitic readings.

First, I show that while Goldstein’s ideas are currently being reclaimed in biopsychosocial models of disability and inscribed into alternative genealogies of disability and neurodiversity studies, they are ultimately geared towards a philosophical biology and anthropology that serve the interests of the pathology paradigm. Moreover, I argue that the tensions in Goldstein’s approach evidence a dishuman discomfort with dis/harmony, dis/order, and parasitism.

Given the inherent tensions in Goldstein’s thinking, what would it entail to present his work as disability-centred or neurodiversity-affirming *avant la lettre*? What kind of cautionary measures should we take to avoid framing it into new genealogies of innocence? Emphasising the potentially ableist aspects of Goldstein’s thinking may help us clarify the orientations of our readings and the legacies we might carry in drawing from Goldstein. In the second and final subsection, I discuss some of these claims based on a parasitic reading – which might also, in this instance, be described as a dis/orderly reading – of Goldstein’s direct engagement with autism. I show that attempts at humanising autism through Goldstein might risk reinforcing ideas of orderliness, while contributing to the dehumanisation of a so-called ‘autistic disorder’.

1. Genealogies of Disability, Neurodiversity, and Pathology Lite in the Theory of the Organism

a) Goldstein and Disability

An important dimension of Goldstein's contemporary reception is found in increasingly common portrayals of his work as compatible with a disability or neurodiversity framework. This can be seen, for instance, in analyses of Goldstein's work by Charlotte Gilart de Keranflec'h. Gilart de Keranflec'h explains that Goldstein's 'holistic approach of neurology and neuropsychology […] advocates a paradigm that is less biomedical than bio-psycho-social'.[397] This description directly refers to conceptual models of disability, as is evident in the title the researcher and medical professional gives to her article's conclusion: 'neurorehabilitation and disability, between medicine and histories of dissidence'.

By departing from a typical medical model of disability, in which all responsibility is attributed to the individual, Goldstein's theory of the organism may at first glance appear closer to the social model of disability (see General Introduction). In multiple instances, Goldstein explains that disorder and disease are not problems in themselves, but rather attempts at solving the problem of unrealistic demands made on an impaired organism. He calls for transforming the milieu to accommodate the patient's new (usually reduced) abilities and insists that the demands placed on the sick person by others should be adjusted accordingly. However, by emphasising clinical practice, Goldstein's approach might be better described as a hybrid of the medical and social models. This is the reason why Charlotte Gilart de Keranflec'h maintains that it is most accurately likened to the biopsychosocial model of disability (BPS). This model was introduced to correct the medical model, rightly deemed too reductionistic.[398] Formulated within the biomedical sciences, the biopsychosocial model incorporates key elements of the social model of disability while retaining a therapeutic and curative orientation.

The biopsychosocial model of disability takes the opposite route to the relational and biocultural models of disability (see General Introduction), seeking to salvage the medical model from its epistemic limitations through minor reforms. Goldstein's holistic approach to neurology earned him Gilart de Keranflec'h's labelling as a precursor to the biopsychosocial model of disability. Indeed, she explains that this approach positions Goldstein '"at the margin" of the medical world': it breaks with the traditional definition of medicine as 'care provided by

[397] Charlotte Gilart de Keranflec'h, '"Outsider as Insider", la neurorehabilitation selon Goldstein', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), p. 134. I translated this and all later citations of this reference from French.
[398] George L. Engel, 'The Need for a New Medical Model: A Challenge for Biomedicine', *Science*, vol. 196, no. 4286 (1977), pp. 129–36.

doctors with the aim of curing'.[399] Because Goldstein's understanding of neurological rehabilitation integrates medical care, interpersonal care, and environmental accommodation, Gilart de Keranflec'h argues that it transcends the boundaries of medicine and opens itself to the realm of community care, which has been central to disability activism throughout history.

By seeking to humanise patients, Goldstein's rehabilitative approach also grants them rights: first, the epistemic right to be correctly studied, with the development of the new discipline of rehabilitation care. Then the 'ontological right […] to be recognised as a person to whom society owes something: an optimal quality of life, despite its impairments'.[400] These rights, according to Gilart de Keranflec'h, are typical of a disability-centred approach to medicine – they evidence a form of medicalisation through partial depathologisation and humanisation, which constitutes 'a constant feature in the history of medical interest in disability'.[401] Indeed, the core features of Goldstein's clinical practice (the promotion of physical and cognitive functions, the participation of disabled people in their treatment, the focus on internal motivation, and the emphasis on agency) constitute the foundation of the World Health Organization's International Classification of Functioning, Disability and Health (ICF). Given that the ICF is grounded in the biopsychosocial model of disability, it seems justified to claim that Goldstein's theory echoes the BPS model.

Moreover, Gilart de Keranflec'h notes that '[t]he socio-political concern clearly at work in Goldstein's work continues to permeate the field of disability studies today.'[402] She lists potential new ways of reading Goldstein from a disability-centred lens: a Marxist approach of disability, a cultural disability studies approach, and a critical disability studies approach.[403] One key element of this disability-centred genealogy is the fact that, in his philosophical anthropology, Goldstein sets out to analyse normal physiology and neurology 'in the light of pathology'. Gilart de Keranflec'h sees this as a first step towards the idea, developed by disability activists, that 'disability can affect any of us at some point in our lives', so much so that 'people who are not disabled [could then be described as] "temporarily able-bodied"'.[404] From this perspective also follows that, 'by adequate treatment these patients might be brought to a condition where life would again be worth living, despite some remaining defects'.[405] These ideas directly echo interventions made by disability activists and theorists in the last forty years,

[399] Gilart de Keranflec'h, '"Outsider as Insider"', p. 134.
[400] *Ibid*.
[401] *Ibid*., p. 135.
[402] *Ibid*.
[403] *Ibid*., pp. 135–6.
[404] *Ibid*., p. 136.
[405] Kurt Goldstein, 'Notes on the Development of my Concepts', *Journal of Individual Psychology*, vol. 15 (1959), p. 2, cited in Agathe Camus, 'Kurt Goldstein, de la clinique des lésions cérébrales au soin et à l'accompagnement des maladies chroniques et du handicap : soigner la personne, "réarranger le milieu"', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), p. 97.

though it might be helpful to complicate the notion that disabled lives that do not receive adequate treatments might not be 'worth living'. It is also noteworthy that the idea according to which 'disability can [and will likely] affect any of us at some point in our lives' has been criticised by antiracist and decolonial disability theorists, such as Jasbir Puar, who laments its universalising and depoliticising approach.[406]

The reading of Goldstein offered by Charlotte Gilart de Keranflec'h relies on the idea that the history of medicine cannot – and most importantly, should not – be disentangled from the history of disability. It is certainly true that a social (or biopsychosocial) model of disability – along with Canguilhem's or Goldstein's work – allows us to historicise the definitions of the normal and the pathological in a given society. But while the border between disability and disease has been historically blurred in medical circles,[407] should we necessarily embrace this pairing and its potential justification of pathologisation and medicalisation? It becomes clear that the genealogy of Goldstein as a disability thinker *avant la lettre* relies on an understanding of disability that is socially and politically situated. Namely, it does not seem to interrogate the racism of disability movements, nor does it appear to question the deep limitations of medicalisation.

According to Agathe Camus, it would be an exaggeration to say that Goldstein 'goes so far as to lay the groundwork for a change in attitudes towards disability and difference, or even for a critique of normalisation associated with disability politics, as many later works in disability studies would do'.[408] Beyond Goldstein's repeated distinction between 'we normal people' and 'the abnormal', which I noted above, Camus highlights the frictions between Goldstein's approach and disability studies frameworks: 'Goldstein's perspective remains essentially medical and fits, at least partially, into the emerging paradigm of rehabilitation, the very paradigm that critics from disability studies will oppose, denouncing its essentially normalising vocation.'[409]

And indeed, it is noteworthy that George Engel's foundational paper, which introduced the biopsychosocial model of disability, emphasised 'the need for a new medical model' as 'a

[406] See, for example, Jasbir Puar, *The Right to Maim: Debility, Capacity, Disability*, Durham and London: Duke University Press, 2017, p. 70: 'There is a productive tension, then, between embracing disability as a universal and inevitable condition, and combating the production of disability acquired under duress of oppressive structures of social injustice. While the former became necessary to push back against the exceptionalizing view of disability as a singular misfortune and a private tragedy, disability should not then be conceptualized as a universal problem affecting everyone. Without attending to the unevenness of that universal affectation in geopolitical and biopolitical terms, this necessary rejoinder to exceptionalizing tendencies invites a problematic liberalizing democratization; universalizing in order to counter exceptionalizing leaves the binary operative.'
[407] Gilart de Keranflec'h, '"Outsider as Insider"', p. 118.
[408] Camus, 'Soigner la personne, "réarranger le milieu"', p. 108. I translated this and all later citations of this reference from French.
[409] *Ibid.*

challenge for biomedicine'.[410] More than a break from the medical model or an expansion of the social model of disability, the biopsychosocial model was, from the start, envisioned as an expansion of the medical model itself. With his clinical, person-centred approach, which was praised by psychologists because of its ability to humanise patients, does not Goldstein also imagine a new way of engaging with the *medical model* of disability? This does not prevent Camus, however, from proposing a certain use of Goldstein for a thinking and practice of disability. This ambivalence, inherent to Goldstein's work, complexifies the genealogy of its reception and cautions against unilateral celebrations of its emancipatory potential.

b) **Goldstein and Neurodiversity**

Beyond disability matters, Charlotte Gilart de Keranflec'h also suggests that Goldstein's views on rehabilitating care 'can tie in with very current discussions concerning neurodiversity'.[411] In spite of its close focus on neurological rehabilitation in Goldstein, her article does not venture into the conceptual frameworks of neurodiversity studies or the history of the neurodiversity movement. What would it mean to describe Goldsteinian thinking as neurodiversity-affirming, or simply neurodiversity-related? With the development of the neurodiversity movement and neurodiversity studies between the late twentieth century and the early twenty-first century, it goes without saying that Goldstein could not have anticipated the neurodiversity paradigm. However, as we will see here, current commentators have posited that, with its person-centred and humanising approach, Goldstein's theory of the organism provides the ground for a rethinking of psychotherapy beyond the pathology paradigm.

The concept of neurodiversity has taken on various definitions over time. One of them, examined by Robert Chapman, describes neurodiversity as the rejection of the ideal of species-specific normality, that is, of a set of predicates, abilities, and styles of functioning considered as the standard of the species (Chapter 4).[412] Goldstein's approach, as I have already mentioned, escapes the traditional understanding of normality as a species-specific ideal. It does so very explicitly, with Goldstein arguing that '[e]ven if the idealistic norm concept would do justice to the "constants" of the species, by forming the ideal according to these constants, it may nevertheless fail with respect to the individual'.[413] Because no one organism can ever perform a perfect form of normality in statistical terms, this species-specific norm concept 'cannot be

[410] Engel, 'The Need for a New Medical Model', emphasis mine.
[411] Gilart de Keranflec'h, '"Outsider as Insider"', p. 119.
[412] See Robert Chapman, *Autism, Neurodiversity, and the Good Life: On the Very Possibility of Autistic Thriving*, PhD Thesis, University of Essex, 2018.
[413] Goldstein, *The Organism*, 1995, p. 325.

used to determine whether a given individual is to be regarded as normal or abnormal'.[414] In other words, as Patrick M. Whitehead summarises, '[w]e do not have the potential to be some generic definition of normal—that is, a regression to the mean. We have only the potential to be ourselves.'[415]

Goldstein's approach understands the organism's essence (or 'potential') as being determined not only by its biological and physical potentials, but also by the demands and constraints of its environment. It is indeed the relationship itself that is at stake, namely the performance of a coming to terms [*Auseinandersetzung*]. As such, '[i]n the self-actualization conception, "normal" indicates ordered behavior toward growth, and this cannot be identified without considering both organism *and* environment'.[416] For instance, a neurodivergent person who lives in a supportive social environment can easily flourish and become a fulfilled, self-actualised human. On the contrary, a neurodivergent person who lives in a non-supportive social environment does not, by definition, have the potential for complete fulfilment. Yet as long as the latter expresses behaviours orientated towards growth and self-actualisation, Goldstein suggests that they are healthy.

In a paper on autism, to which I return later in the chapter, Goldstein describes the behaviour of autistic children trapped in a non-supportive environment. He explains that '[u]nder these abnormal conditions the psychological survival of the child requires that there be no environmental interference with the limited activities he is able to perform. Performance of these activities protects him against the dangers which the demands of the world represent'.[417] For Goldstein, a 'normal' organism is therefore one that strives towards self-actualisation. In other words, there is a positive imbalance towards becoming oneself. On the contrary, a pathological organism is one limited to self-preservation – the reactive return to equilibrium. As Whitehead explains, we only look out for ways to survive when we are threatened, not when we are just trying to live our lives. This suggests that Goldstein never rejects the pathology concept altogether, only 'the disease model of psychopathology'.[418] Instead, he redefines pathology as 'anything that inhibits a particular person's actualization within a particular setting or milieu'.[419]

---

[414] *Ibid*., p. 326.
[415] Whitehead, *Psychologizing*, p. 146.
[416] *Ibid*., p. 147.
[417] Kurt Goldstein, 'Abnormal Mental Conditions in Infancy', *The Journal of Nervous and Mental Disease*, vol. 128, no. 6 (1959), p. 556. These clinical recommendations are reminiscent of those made by the Markrams in the Intense World Theory examined in Chapter 1, though the underlying conception that leads to this conclusion differs. This suggests that both theories can be associated with a form of humanistic psychology.
[418] Whitehead, *Psychologizing*, p. 150.
[419] *Ibid*., p. 147.

This prompts Whitehead to borrow from Goldstein (along with Canguilhem) to formulate what he dubs 'an antipsychiatric position'.[420] This position is understood as a critique of 'the fundamental categories of affliction (psychopathology) and wellness (normal) in modern medicine—categories upon which the practice of psychiatry is based'.[421] Goldstein indeed recognises that behaviours traditionally described as pathological – like most neurodivergent behaviours – can function as adaptive reactions that allow the organism to recreate order and balance in its relationship to the milieu. In other words, while such behaviours might not be normal or typical in statistical terms, they are still *salutogenic*, which is to say that they constitute forms of 'being toward health'.[422]

This 'antipsychiatric' position could also be described as a neurodiversity-affirming position: by blurring the line between the normal and the pathological, Goldstein evidences the various strategies that exist for achieving health in different individuals (and we could add, neurotypes) and situations. Moreover, because of its major influence on the development of humanistic psychology, itself a core source of inspiration for Nick Walker's neuroqueer theory, could Goldstein's work therefore be recast as a stepping-stone for neurodiversity?

I have already mentioned the influence that Goldstein had on the development of humanistic psychology in the United States of America, and the centrality of this approach to Nick Walker's neuroqueer theory. Here, I would like to delve deeper into the reasons mentioned by Walker for drawing on humanistic psychology, especially his argument that humanistic psychology – and perhaps Goldstein's work too, by extension – escapes the limitations of what Walker calls the pathology paradigm. As I explained in the introduction to this thesis, the *pathology paradigm* refers to the idea that 'there is one "right", "normal," or "healthy" way for human brains and human minds to be configured and to function'[423] and that those whose functioning significantly departs from this norm are abnormal and wrong. On the contrary, the *neurodiversity paradigm* recognises neurodiversity as 'a natural and valuable form of human diversity'.[424] It therefore rejects the idea that there is such a thing as a 'normal' or 'healthy' style of human mind.[425]

In his PhD thesis, Walker justifies his choice of framework by explaining that '[t]he humanistic approach, with its nonpathologizing perspective and its embracing of authenticity and unique individual potentials, obviously stands in strong contrast to the pathology paradigm'.[426] Walker goes so far as to portray humanistic psychology as 'fundamentally at odds

[420] *Ibid.*, p. 153.
[421] *Ibid.*
[422] *Ibid.*, p. 151.
[423] Walker, *Neuroqueer Heresies*, p. 18.
[424] *Ibid.*, p. 19.
[425] *Ibid.*
[426] *Ibid.*, p. 18.

with the agenda of […] the pathology paradigm'.[427] This is true, according to him, because humanistic psychologists do not advertise themselves as people who attempt to 'cure autism', from which follows that parents of autistic children rarely go to humanistic therapists to seek treatment.[428] Moreover, in their attention to individual potentials and their attempt to help autistic people express themselves authentically, humanistic psychologists seem to break free from the pathologising constraints of the pathology paradigm. As such, Walker concludes, 'humanistic perspectives and priorities [are] exactly the alternative that's needed'[429] in neurodiversity studies.

This raises the question of whether humanistic psychology can really be positioned alongside the neurodiversity paradigm rather than the pathology paradigm, which is far from obvious to me. For now, however, I am more interested in the role Goldstein played in the development of humanistic psychology and the question of whether his work might be positioned on the side of the pathology paradigm or the neurodiversity paradigm. To this end, it is useful to note with Walker that, in generality, 'the framework of the neurodiversity paradigm […] supports approaches based in the social model of disability'.[430] This means that the pathology paradigm, on the contrary, 'contributes to autistic disablement', for instance by championing the idea that autistic people are abnormal and need medical treatments. It follows from this observation that, broadly speaking, the pathology paradigm aligns with the medical model of disability.

Goldstein's proximities with the biopsychosocial model of disability, also described as the medico-psycho-social model of disability,[431] suggest he was closer to the pathology paradigm than the neurodiversity paradigm. This is true despite – and perhaps, alongside – Walker's argument that humanistic psychology fits the requirements of the neurodiversity paradigm. This is also true despite – and alongside – Goldstein's argument that there exist various – organism- and context-dependent – ways of achieving health rather than only one. Thus, throughout his career, Goldstein never stopped using terms like 'pathology' or 'abnormal' to describe his disabled or neurodivergent patients, including, as we will see below, autistic ones. Albeit redefined as 'anything that is limiting to organismic growth',[432] the term 'pathology' appears both in the title of the English translation of Goldstein's *magnus opus* and in his William James lectures, published in 1940 under the title *Human Nature in the Light of Psychopathology*.

---

[427] *Ibid*., p. 254.
[428] *Ibid*., p. 23.
[429] *Ibid*., p. 24.
[430] *Ibid*., p. 60.
[431] Tom Shakespeare, *Disability Rights and Wrongs Revisited*, London and New York: Routledge, 2014, p. 79.
[432] Whitehead, *Existential Health Psychology*, p. 50.

Beyond questions of terminology, the issue lies in Goldstein's philosophical conception itself. Goldstein was, and remained throughout his life, a clinician and therapist before he was a philosopher, and this is reflected in his theories. His clinical practice centred around the treatment of pathology and the rehabilitation of health. More specifically, his conception of human nature presupposes order – understood as the *healthy* and *normal* human capacity to reach harmony in one's relation to others and to the milieu – even as his methodological commitment to pathology may have lent itself to a focus on disorder. Similarly, although Goldstein departs from Uexküll's teleology by introducing contingency into the relationship between organism and milieu, he nevertheless delineates a normative mode of interaction between the two.

Goldstein acknowledges that even healthy individuals experience anxiety and catastrophic reactions – events that can lead to disordered interactions with the environment – but he classifies a situation as pathological only when the organism fails to maintain an ordered, balanced, and stable mode of interacting with the world based on its individual essence and abilities. Drawing on crip theory, we can reject the assumption that order and harmony constitute the default condition of living organisms, and instead argue that disorder and disharmony represent the standard (or at least the most common) condition, in the same way as parasitism constituted, for Michel Serres, the standard condition in biological life. For example, in *Feminist, Queer, Crip*, Alison Kafer critiques 'curative time,' a teleological form of temporality in which disabled bodyminds are continually compelled towards a future of rehabilitation, order, and health – that is, towards an overcoming of disability.[433]

In contrast with the compulsory able-bodiedness and compulsory able-mindedness that seem to transpire from Goldstein's approach,[434] crip approaches in disability studies have also been celebrating what we could call, tweaking Jack Halberstam's famous phrase, the *crip* art of failure.[435] Paradoxically, Goldstein's celebration of order amounts to a celebration of flexibility, namely, the ability to adjust to an altered mode of embodiment or new environmental demands. But does that mean that bodyminds that linger in disorientation or fail to orientate themselves are necessarily pathological and abnormal?

Instead of assuming ability and order as the default experience in human beings or as the only normative horizon for human lives, disability studies and crip theory have reintroduced impairment as a conceptual parasite in the edifice of normality. Jonathan Sterne, for instance,

[433] Alison Kafer, *Feminist, Queer, Crip*, Bloomington and Indianapolis: Indiana University Press, 2013, pp. 27–8.
[434] For the concept of compulsory able-bodiedness, see Robert McRuer, *Crip Theory: Cultural Signs of Queerness and Disability*, New York and London: New York University Press, 2006.
[435] See Jack Halberstam, *The Queer Art of Failure*, Durham and London: Duke University Press, 2011; David T. Mitchell, Sharon L. Snyder, and Linda Ware, '"[Every] Child Left Behind": Curricular Cripistemologies and the Crip/Queer Art of Failure', *Journal of Literary & Cultural Disability Studies*, vol. 8, no. 3 (2014), pp. 295–313.

has suggested that failure and impairment might not be exceptions to the norm, but the ordinary condition of embodiment and interpersonal communication.[436] Others, re-enacting the negative turn from queer theory and the afro-pessimist school of Black studies within the context of disability, have positioned breakdowns, disablement, or Madness as the subversive horizon of crip politics. J. Logan Smilges, for instance, has issued a call for 'crip negativity', an antidote to current 'crip optimism', namely a refusal of ableist demands for productivity, coherence, and future-orientedness.[437] By doing so, they insist on the political force of refusal and maladjustment and champion a disavowal of order as the horizon of disability activism. Similarly, in 'Is Sex Disability? Queer Theory and the Disability Drive', Anna Mollow proposes a 'disability drive' that parallels Lee Edelman's work on the death drive, the major intervention that initiated the *negative turn* in queer theory. With this notion, she maintains that there exists a drive towards (or a desire for) disability in every one of us.[438]

Without taking a stance on whether the *parasitic disorder* holds a universal place in human nature or not – thus leaving open the question of a negative crip-queer reading of Goldstein's philosophical anthropology and of our dishuman modernity at large – we can nevertheless observe and lament that his approach was largely neuronormative. Goldstein's anthropology indeed assumes not so much a predicative normativity – a normal human walks, speaks, etc. – but a meta-predicative normativity – no matter its abilities or impairments, a normal human should be able to re-create order in their behaviour promptly every time they are confronted with unrealistic demands, thereby avoiding catastrophic reactions. In other words, while potentially disabled or impaired in given functions, Goldstein's healthy human is still defined by a normative standard of flexible, orderly self-regulation. They are, ultimately, sane and neurotypical.

In the end, Goldstein returns (and commits) to orderliness. While in Uexküll, disharmony appeared as a repressed parasite that came back to bite Umwelt theory, disorder in Goldstein assumes a different function. Indeed, the centrality that Goldstein willingly confers to disorder through his methodology can only be understood – and embraced – by effectively disarming it, by defusing its subversive and critical potential. As such, the disorderly temptation in Goldstein – the equivalent to Uexküll's parasitic temptation – is neutralised and channelled into a form of 'inspiration porn':

---

[436] Jonathan Sterne, *Diminished Faculties: A Political Phenomenology of Impairment*, Durham and London: Duke University Press, 2021.
[437] J. Logan Smilges, *Crip Negativity*, Minneapolis and London: University of Minnesota Press, 2023.
[438] See Anna Mollow, 'Is Sex Disability? Queer Theory and the Disability Drive', in *Sex and Disability*, ed. Robert McRuer and Anna Mollow, pp. 285–312, Durham and London: Duke University Press, 2012. For the death drive and the negative turn in queer theory, see Lee Edelman, *No Future: Queer Theory and the Death Drive*, Durham and London: Duke University Press, 2004.

> What is original about these fairly traditional descriptions [of humanity], and even regularly touches the reader, is that Goldstein highlights the importance of these elements of humanity through their absence or erasure in brain-damaged patients. These patients appear to be subject to a sense of concreteness that prevents or hinders their perception of possibility, the use of memory for purposes other than those requested, forcing them into an attitude often rooted in reaction rather than initiative, and a stereotypical use of language. In this way, the reader is both moved by these losses and awakened to the importance of these faculties within themselves, which they may no longer care much about, taking them for granted. Seeing them presented as fragile makes them valuable once again and makes it urgent to reflect on them in order to understand and use them more fully and completely.[439]

Inspiration porn refers to 'the representation of disability as a desirable but undesired characteristic, usually by showing impairment as a visually or symbolically distinct biophysical deficit in one person, a deficit that can and must be overcome through the display of physical prowess.'[440] In Goldstein's philosophical anthropology, a *we* – Goldstein keeps addressing his readers as 'we normal people'[441] – is constantly shaped by opposition to the *they* of the disorderly, pathological humans. It is not so clear anymore, like Charlotte Gilart de Keranflec'h maintained, that Goldstein's appeal to pathology generates a sense of one's own vulnerability to disablement in his readers, along with the well-known formula according to which we will all become disabled one day if we live long enough. On the contrary, by reading about his disordered patients, Goldstein's readers are comforted in their humanity and compelled to strengthen their normality.

Precisely, the humanity and normality of the *we* is established through a comparison with the lesser humanity and normality of the *they*. It is not exactly that disordered, Mad, and neurodivergent people are cast out of the realm of the human altogether, since they are considered human enough to be rehabilitated. Yet their disorderly condition is assimilated to a less-than-humanity or subhumanity which correlates with Goldstein's view of the animal. It is still, in the final analysis, a form of dehumanisation. With this, it becomes clear that Goldstein's philosophical anthropology contributes to the (re)configuration of a dishuman modernity that has influenced the way Western societies relate to disability and disorder (at least) as early as the twentieth century and up to this day.

As such, the humanistic approach to human psychology, whether by Goldstein *dans le texte* or by contemporary scholars of Goldstein, represents nothing more than a form of *pathology lite*. With the notion of pathology lite, I am hoping to provide a complement to the

---

[439] Dumont, 'L'anthropologie philosophique de Kurt Goldstein', p. 160.
[440] Jan Grue, 'The Problem with Inspiration Porn: A Tentative Definition and a Provisional Critique', *Disability & Society*, vol. 31, no. 6 (2016), abstract.
[441] Goldstein, *Human Nature in the Light of Psychopathology*, p. 54.

well-established concept of 'neurodiversity lite'. In the emerging field of critical neurodiversity studies, the phrase 'neurodiversity lite' has been used to describe rhetorical practices of assimilation and neutralisation of the neurodiversity lexicon (and of its critical and subversive potentials) by mainstream actors in psychological, economic, or institutional spheres.[442] Thus, neurodiversity lite refers to contemporary discourse in the neoliberal era that claims to embrace the neurodiversity paradigm without concretely committing to a break from the pathology paradigm – a paradigm shift described by Nick Walker as the *sine qua non* of all neurodiversity-affirming work.[443]

While similar in function, *pathology lite* differs in its functioning. Pathology lite refers to past or present discourse seeking to transform the pathology paradigm, for example, from within the bio-psycho-medical sciences, without necessarily claiming a neurodiversity approach. Because of its critical approach to mainstream medical models, it may – deceivingly – lend itself to perceptions and representations of neurodiversity affirmation among proponents of the neurodiversity movement. As such, instead of working to neutralise the *rhetorical potency* of the neurodiversity lexicon by claiming it unjustly (like neurodiversity lite does), pathology lite discourse works to undermine the *core principles* of the neurodiversity paradigm by maintaining the illusion of a transformability of the pathology paradigm to accommodate autistic and other neurodivergent individuals.

Indeed, by suggesting that a more humanising and person-centred approach to psychopathology could equal a neurodiversity-affirming approach, pathology lite proponents are being very explicit with their curative intentions. Contrary to neurodiversity lite proponents, who might act as if they had effectively depathologised their thinking and practice, pathology lite proponents suggest that a more empathetic and humane approach to medicine will prove *more successful* in bringing about the long-awaited 'cure for autism'.

Considering its pathologising view, it seems legitimate to wonder whether Goldstein's theories can still serve as a foundation for neurodiversity-affirming theorisation. In an interaction with one of his students, Goldstein said: 'Aaron, if the patient disagrees with the book, throw the book away. The patient is never wrong.'[444] Does this mean we should throw Goldstein's work away, along with the proverbial bathwater of the pathology paradigm? Not necessarily. As will become clear throughout Part II of this thesis, my own approach to neurodiversity is indebted to Goldstein's critique of mechanism and reductionism in biology,

[442] Neumeier, '"To Siri with Love" and the Problem with Neurodiversity Lite'.
[443] See Walker, *Neuroqueer Heresies*.
[444] Gabriel P. Frommer and Aaron Smith, 'Kurt Goldstein and Recovery of Function', in *Brain Injury and Recovery: Theoretical and Controversial Issues*, ed. Stanley Finger et al., pp. 71–88, Boston: Springer, 1988, cited in Marie Gaille, 'Qu'était-il en réalité', p. 12. I was not successful in searching for the original text, and the citation is therefore a translation from French.

his critical approach to neurological localisationalism, and his holistic theory of the organism. Therefore, instead of trying to recast Goldstein as an enemy of neurodiversity and autistic people or policing his uses in contemporary scholarship, my interest here lies in providing parasitic and dis/orderly readings of the cultural figurations of autism through Goldstein. To do so, I will now examine the applications of Goldstein's theory of concrete and abstract attitudes to autism. Then, I will return to the figure of the autistic parasite, which comes back to bite us in the form of symbiotic psychoses. Finally, I offer a reading of autism as a figure of dis/humanity and dis/order.

2. Parasitic and Dis/Orderly Readings of Autism in Goldstein

Offering a discussion of the phenomenology of autism, Teunie van der Palen turns to Merleau-Ponty. Drawing on the French philosopher, she suggests that a phenomenology of autism should understand the neurodivergence as a 'distinctive way of articulating the world'.[445] This requires deep attention to the lived experiences of autistic people and to their modes of perception. 'Although Merleau-Ponty never wrote on autism, van der Palen admits, the case study that forms his main source for insights into, and examples of, (ab)normal perception in *Phenomenology of Perception*, the case of a certain Schneider, appears to show a degree of overlay with autism'.[446] Unsurprisingly, given Merleau-Ponty's leanings, this case study was one of the early studies Goldstein conducted on brain-injured veterans with colleague Adhemar Gelb. As van der Palen notes, this case 'was found to be a perfect example of their ideas on the influence of brain damage on perception and reasoning'.[447] While Goldstein only began writing about autism after his exile to America and his encounter with Leo Kanner's work, his early neurology work could nonetheless be described as autism-adjacent. It has, at the very least, resurfaced in contemporary research on autism, as we see with van der Palen. Let this be the first step of my parasitic reading of autism into Goldstein's work.

It was only in 1959 that Goldstein published his paper, 'Abnormal Mental Conditions in Infancy', which provides a critique of Leo Kanner's and Elizabeth Mahler's conceptions of autism.[448] Contrary to Jakob von Uexküll, Goldstein lived at a time when autism already existed as a clinical category. While autism was never the primary focus of his interests or his primary area of expertise, his incursion into the realm of autism research was directly inspired by his

[445] Merleau-Ponty cited in Teunie van der Palen, *A Cyborg Autobiography: Autism & the Posthuman*, MA Comparative Literary Studies, Utrecht University, 2014, p. 55.
[446] *Ibid*.
[447] *Ibid*.
[448] Goldstein, 'Abnormal Mental Conditions in Infancy', pp. 538–57.

theoretical writings on psychopathology. While some note (and regret) that his article has remained largely 'uninfluential'[449] in autism science to this day, others, like Oliver Sacks, with whom I opened this chapter, described Goldstein as a 'pioneer' in autism research in the 1940s, along with the oft-cited Kanner and Asperger.[450] This makes Goldstein's paper a particularly appropriate material for a parasitic reading of autism.

a) Autism and the Abstract Attitude

In that article, Goldstein rejects Kanner's understanding of autism, which can be described as reductionistic, mechanistic, and essentialist. Indeed, Kanner believed that autistic children display a 'powerful desire for aloneness and sameness'.[451] On the contrary, following the core principles of his philosophical biology, Goldstein explained that – like all children – autistic children follow their drive for self-actualisation by seeking to perform actions and behaviours that are accessible to them and that are already part of their acquired repertoire. That is why, for example, when they are presented toys, autistic children often choose to line them up. According to Goldstein, this gives them the natural pleasure of performing a simple task, which we find in all children across neurotypes. When parents praise these behaviours, the children's tendency to repeat them is reinforced. Therefore, more than an innate (and pathological) desire for repetition, these behaviours constitute the privileged way for autistic children to create an 'adequate' relationship with the world around them.

However, for Goldstein, there is no reason to interpret these behaviours as a form of autism, a term that the German neuropsychotherapist reserves for behaviours of intentional withdrawal, employed to 'ward off' fear in difficult situations.[452] Since the demands of the environment are sometimes far greater than their abilities, some children find themselves in 'catastrophic situations' that can lead to acute crises. But rather than behaviours of autistic withdrawal, Goldstein maintains that these children are simply pursuing the activity that makes the most sense to them. Their behaviour is thus salutogenic rather than pathological: instead of being the problem itself, such behaviour responds to the problem posed to the children by the situation they find themselves in.

---

[449] Berend Verhoef, 'Kurt Goldstein on Autism: Exploring a Person-Centered Style of Psychiatric Thought', *History and Philosophy of the Life Sciences*, vol. 38 (2016), p. 119.
[450] Oliver Sacks, *An Anthropologist on Mars: Seven Paradoxical Tales*, New York: Alfred A. Knopf, 1995, p. 304.
[451] Leo Kanner, *Child Psychiatry*, Springfield: C. C. Thomas, 1948, p. 249, cited in Goldstein, 'Abnormal Mental Conditions in Infancy', p. 546.
[452] Goldstein, 'Abnormal Mental Conditions in Infancy', p. 555.

Moreover, Goldstein holds that these behaviours do not exemplify a loss of contact with others and the world, since the ability to make real contact is still undeveloped in these children. This perspective on autism – because these children would most definitely be considered autistic today – echoes the one examined in Chapter 1 in the parasitic readings of Uexküll: more than a form of withdrawal, autistic behaviour could be described as a complete and quasi-innate absence of connection, almost as the result of a poverty in world. Indeed, Goldstein contends that there is a 'mental defect' in these children, linked to their inability to achieve the *abstract attitude*. As an example of the abstract attitude, Goldstein mentions the ability to understand that the hand that touches me belongs to another person, something which is not always natural to autistic people.[453]

In order to better understand the difference between concrete and abstract attitudes, it is useful to return to the analyses provided by Patrick M. Whitehead. In a paper dedicated to Goldstein's critique of Kanner and his new approach to autism, Whitehead explains that

> [t]he concrete attitude, Goldstein and Scheerer (1941) explain, 'does not imply conscious activity in the sense of reasoning, awareness, or a self-account of one's doing. [... We] are confined to the immediate apprehension of the given thing or situation in its particular uniqueness' (pp. 2-3). The abstract attitude, by comparison, is conscious and volitional, and involves among others a detachment 'from the outerworld or inner experiences [... and] [t]o plan ahead ideationally' (p. 4). In the concrete attitude one is wedded to the environment; in the abstract, one can view his or her experiences as if from the outside, evaluating or reasoning about them. Goldstein holds that development of the abstract attitude has important consequences for humanizing a person.[454]

The ability of autistic children to 'free [themselves] from permanent dependence on adults depends at least in part on [their] development of the abstract capacity, which increasingly enables [them] to better organize [themselves] and [their] world, and so to guarantee [their] existence'.[455] With those children whom Goldstein *does* recognise as autistic, withdrawal is not, as Kanner believed, the result of an 'inborn autistic disturbance of affective contact'. The loss of contact is not primary, but rather secondary. It represents the solution that these children adopt to face the challenge of establishing a relationship with their environment that matches their organismic abilities, rather than constituting the problem itself. Because these autistic children have only developed very 'primitive' forms of behaviour and cognitive performance,

[453] See Kurt Goldstein and Martin Scheerer, 'Abstract and Concrete Behavior an Experimental Study with Special Tests', *Psychological Monographs*, vol. 53 (1941), pp. 1–10.
[454] Patrick M. Whitehead, 'Kurt Goldstein's Critique of Leo Kanner: Understanding Autism as an Impairment of the Abstract Attitude', *Early Child Development and Care*, vol. 192, no. 1 (2022), p. 138.
[455] Goldstein, 'Abnormal Mental Conditions in Infancy', p. 541.

related to the concrete attitude, they are led to 'react only to "stimuli" and not to whole persons'.[456]

Behind this superficially humanising and empathetic approach to autism, the autistic disability remains, for Goldstein, an 'abnormal mental condition' linked to a 'mental defect' and specifically an 'impairment of abstraction'.[457] Both terms, 'defect' and 'impairment', feature prominently throughout the paper. Without going into detail about the different behaviours examined by Goldstein, might it be that his patients simply refused to simulate abstract actions – for example, turning a key in an imaginary door – precisely because it made no sense to them? Rather than a deficit, should we not understand this as an act of refusal? This is the kind of explanation that commonly appears in the narratives of behavioural therapy recounted by autistic people,[458] but also the kind of problems found in scientific discussions of animal behaviour.[459]

While self-actualisation might be described as a meta-predicate of all living beings – belonging to the realm of a philosophical *biology* – it is the abstract attitude that Goldstein reserves for the human with his philosophical *anthropology*. As Oliver Sacks has noted, 'Goldstein is quick to equate "mind" with the abstract-categorical, the conceptual, and to regard anything else as pathological, as sterile.'[460] Because they failed to satisfy his tests for the abstract attitude, Goldstein's autistic case studies were therefore quickly relegated outside the bounds of typical humanity and therefore dehumanised.

Furthermore, Goldstein aligns with Kanner when he adds to the deficit in abstract thinking a 'deficient development of the "sphere of unity"',[461] which he agrees is possibly caused by emotional coldness on the part of parents, 'and particularly the mothers',[462] a theory that has now been largely disproved. According to this theory, the absence of close and warm emotional contact with mothers prevents children from developing their capacity for emotional connection. Ultimately, Goldstein never refutes the traditional prejudices of autism psychiatry. On the contrary, he readily acknowledges, with Kanner, that '[n]o doubt these children have a lack of affective contact and are living "alone"'.[463]

Despite his legitimate critiques, Sacks held Goldstein – and his work on autistic people – in high esteem. Sacks, who some suspect was autistic himself,[464] has thoroughly engaged with

---

[456] *Ibid*., p. 545.
[457] *Ibid*., p. 547.
[458] See for instance Ido Kedar, *Ido in Autismland: Climbing Out of Autism's Silent Prison*, 2012; Tito Rajarshi Mukhopadhyay, *How Can I Talk If My Lips Don't Move?* New York: Arcade Publishing, 2014.
[459] See, for example, Despret, *What Would Animals Say*.
[460] Sacks, *An Anthropologist on Mars*, p. 240.
[461] Goldstein, 'Abnormal Mental Conditions in Infancy', p. 546.
[462] *Ibid*.
[463] *Ibid*.
[464] See, for example, Michael Fitzgerald, 'Oliver Sacks Was on the Autism Spectrum', 2022, accessed 16 December 2025. https://www.academia.edu/81156895/Oliver_Sacks_was_on_the_autism_spectrum.

autism and autistic people throughout his career. For instance, in his 1995 book *An Anthropologist on Mars*, he relates the stories of seven disabled and neurodivergent people, some of them autistic. Telling the story of a particular meetup with an autistic boy named Stephen, Sacks wonders whether the boy's warm greeting 'was […] merely a social automatism' or a genuine expression of friendliness.[465] This curious interpretation, which does not seem particularly affirmative of neurodivergence, finds an intriguing justification… in the work of our German scientist. It is indeed to Goldstein – whom Sacks describes as a 'great neurologist' – that he turns to explain his reaction. To do so, Sacks tells his readers about a description that

> Goldstein wrote of another autistic boy: 'He becomes fond of some people. […] At the same time, however, his emotional responses and human attachments remain shallow and perfunctory. Meeting him at intervals of several months, one is welcomed and bid goodbye with the same impersonal kindness as if contact were only real as long as it lasted during concrete presence [...] it is a presence without emotional content.'[466]

It is noteworthy that Sacks's own perspective on autism draws so heavily on Goldstein's descriptions. He explains that 'Goldstein's formulations about […] autism are generally valid',[467] and goes so far as to describe the 'study [he and colleagues Martin Scheerer and Eva Rothmann] made on an idiot savant'[468] as 'the deepest and most searching analysis ever made'.[469] This so-called idiot savant, whom Sacks qualifies as 'a profoundly autistic boy',[470] is presented by Goldstein et al. as lacking a theory of mind. The hypothesis of an impaired theory of mind in autism, though largely spread in psychiatric thinking to this day, has been strongly rejected by autistic advocates and proponents of the neurodiversity paradigm. As such, it seems that Goldstein's influence on Sacks was that of a medical professional who also served as the standard bearer of the pathology paradigm, albeit only in the form of pathology lite.

Today, a new wave of research is emerging that seeks to address the shortcomings of contemporary neurobiological and psychiatric science by drawing on Goldstein's thought. This is notably the case within the psychology of autism, where theoreticians, historians, and philosophers of psychology such as Patrick M. Whitehead and Berend Verhoef are issuing calls

---

[465] Sacks, *An Anthropologist on Mars*, p. 216.
[466] *Ibid*.
[467] *Ibid*., p. 228.
[468] *Ibid*., p. 227.
[469] *Ibid*., p. 303. For the study in question, see Martin Scheerer, Eva Rothmann, and Kurt Goldstein, 'A Case of "Idiot Savant": An Experimental Study of Personality Organization, *Psychological Monographs*, vol. 58, no. 4 (1945),
pp. 1–63.
[470] Sacks, *An Anthropologist on Mars*, p. 227. Sacks notes that the boy is not described as autistic by Goldstein et al., because their study predates Kanner's introductory paper by two years.

for a more humanistic and person-centred approach. In an article on Goldstein and autism, Verhoef explains that Goldstein's holistic approach can help us overcome the localisationist and reductionist tendencies of autism science, which overemphasises brain structures over organismic functions, and is quickly turning into a form of 'applied neuroscience'.[471] He then introduces Goldstein's perspective on the abstract attitude, catastrophic reactions, and coming to terms with the world, before outlining Goldstein's criticism of Kanner.[472] Verhoef laments that Kanner's perspective has been much more influential than Goldstein's in autism science, and holds that the latter's views have the potential to generalise 'a [new] style of psychiatric thought' with a more person-centred approach.[473] Indeed, he suggests that 'contemporary cognitive theories of autism such as "Central Coherence Theory" (Frith 1989) and deficits in "Theory of Mind" (Baron-Cohen 1995) and executive functioning (Hill 2004) can be integrated in Goldstein's framework as different manifestations of a deficit of the abstract capacity'.[474] As I have mentioned in the general introduction to this thesis, all these cognitive theories are described as pathologising and reductionistic from the standpoint of the neurodiversity paradigm.

Whitehead, to whom I have turned throughout this chapter to provide a genealogy of Goldstein's thinking and of its reception, is also a strong proponent of the idea that Goldstein can still help us renew psychology today. In a commentary on Goldstein's critique of Kanner, Whitehead recently called to reframe autism as a functional (rather than structural) impairment of the abstract attitude.[475] This means that the impairment is not necessarily attributed to an 'inborn, neurological deficit', but to a 'failur[e] to develop the abstract attitude during infancy'.[476] This takes the form of a 'concretization of the world',[477] through which the child fails to take reflective distance from the world. It seems '[t]hey are restricted to absorption in things and thoughts at the concrete level, without volition, reflection, or evaluation.'[478] Ultimately, Whitehead believes that '[t]he shift from structural explanation to functional understanding emphasizes the existential dimension of the [autistic] person', and thus humanises them. However, he concludes with a quote from Goldstein that feels far from humanising, insofar as it reduces humanity to a neurotypical standard: '[i]t touches on a central

[471] Verhoef, 'Kurt Goldstein on Autism', pp. 119–23.
[472] *Ibid*., pp. 123–29.
[473] *Ibid*., p. 132.
[474] *Ibid*.
[475] Whitehead, 'Kurt Goldstein's Critique of Leo Kanner'.
[476] *Ibid*., p. 140.
[477] *Ibid*.
[478] *Ibid*., p. 141. Whitehead's reflection is evocative of the descriptions of autistic perception given by Erin Manning, where volition, intentionality, and agency are decentred. Contrary to Whitehead, however, Manning's perspective champions depathologisation. See Erin Manning, *Always More Than One: Individuation's Dance*, Durham and London: Duke University Press, 2013; Erin Manning, *The Minor Gesture*, Durham and London: Duke University Press, 2016.

human phenomenon, the experience of "being," of realizing our nature, which is possible only in a genuine unity with the other and with the world'.[479]

While they may claim to humanise autism or autistic people, Verhoef and Whitehead's contributions remain rooted in a pathologising, deficit-based approach. Without a doubt, their respective approaches to autism cannot be reasonably described as contributions to the neurodiversity paradigm. They exemplify the kind of pathology lite approach developed by Goldstein in his time, which ends up strengthening the most mainstream ideas about the so-called 'autism spectrum disorder'.

b) **Autistic Dis/Order and Parasitic Symbiosis**

In 'Neurological Diversity and Environmental (In)Justice', Sarah Gibbons explains that 'the perception that autism involves a parasitic relationship, with the individual acting as a host, has underpinned many theories about autism that position it as a disease as opposed to a set of neurological differences'.[480] In another form of autism described by Goldstein in his 1959 article, symbiotic psychoses, the relationship is reversed: the autistic person becomes the parasite.

Although the connection between autism and psychosis may seem difficult to fathom today, it is important to remember that, in Bleuler's original description, autism was considered a symptom of schizophrenia.[481] In a discussion of Margaret Mahler's work, then, Goldstein focuses on symbiotic psychoses, which are also described as autistic. While Kanner focused on 'an inherent lack of contact with the living environment',[482] Mahler's autistic psychoses explore the idea of 'an inordinate need for symbiotic parasitic fusion with the adult'.[483] This need for symbiotic-parasitic fusion – which describes the child's tendency to cling to the mother's body – is understood as the cause of a form of ego deviation. Parasitic symbiotic psychoses are described as variants of autism in which an infant, who initially appears to develop normally, begins to exhibit traits of withdrawal from the environment, typically between the ages of three and five. At this stage, 'biological maturation and the constraints of reality defeat [the]

[479] Goldstein, *The Organism*, 1995, p. 21, cited in Whitehead, 'Kurt Goldstein's Critique of Leo Kanner', p. 142.
[480] Sarah Gibbons, 'Neurological Diversity and Environmental (In)Justice: The Ecological Other in Popular and Journalist Representations of Autism', in *Disability Studies and the Environmental Humanities: Toward an Eco-Crip Theory*, ed. Sarah Jaquette Ray and Jay Sibara, Lincoln and London: University of Nebraska Press, 2017, p. 531.
[481] In his history of autism, Jacques Hochmann notes that 'Like Goldstein, Bleuler attributes these [autistic] symptoms to an adaptative function'. Hochmann, *Histoire de l'autisme*, p. 203.
[482] Goldstein, 'Abnormal Mental Conditions in Infancy', p. 550.
[483] Margaret Mahler, 'On Child Psychosis Schizophrenia: Autistic and Symbiotic Psychoses', *Psychoanalytical Study of the Child*, vol. 7 (1952), pp. 286–305, cited in *Ibid*.

delusional conviction' that the child 'has complete control over the mother's body in the same way as over its own body', because the two can no longer be experienced as one and the same.[484]

The figure of the autistic symbiotic parasite is reminiscent of the autis/tick parasite examined in Chapter 1. The tick, too, was in a parasitic relationship with her mammal host. In these figurations, the focus is on the idea of a forced bond with another human, with the hypothesis that the autistic parasite imposes an extreme and abnormal form of proximity. But Goldstein nuances the picture. According to him, it is highly unlikely that the adult perceives their relationship with the infant as parasitic. He explains that '[i]n [his] view, [the child] is not a parasite with respect to the mother, nor does the mother commonly experience [the child] as such'.[485] Instead, Goldstein suggests that the fusion results from the 'pathological reduction of normal adjustmental behavior to the primitive turning-toward behavior' by the child.[486] Again, just like with the autistic behaviours described by Kanner, Goldstein contends that it is an impairment in the abstract attitude that prevents the child from developing 'normally', that is, from recognising their separation from their mother.

Goldstein also challenges the idea that there is anything autistic in these behaviours. At first glance, this makes perfect sense: how would the overdemanding symbiotic child compare to the stereotypically withdrawn autistic child? In fact, it is not the seeking behaviour that warrants an autistic label, but the 'disordered' behaviour performed by the child when deprived of their attachment figure. On this matter, clinicians report crises that can even 'give the impression of "catatonia"'.[487] But for Goldstein, the need for fusion in these so-called parasitic children amounts to a persistence of more primitive behaviours. While both autistic and symbiotic children suffer from impairments in the abstract attitude and share behavioural similarities,[488] according to Goldstein, their behaviours constitute different reactions to different situations and demands.[489]

The neurologist ends up classifying the so-called 'parasitic' children in the category of the idiot savants rather than that of the autistic. But by doing so, Goldstein assigns them to a neighbouring position in the historical constellation of autism labels. Jacques Hochmann's history of autism reminds us that, indeed, the figure of the *idiot* constitutes the ancestor of the *autistic* in scientific and cultural representations.[490] Ultimately, instead of emphasising the different diagnostic categories, Goldstein invites his readers to return to the fundamental

[484] Hochmann, *Histoire de l'autisme*, p. 271.
[485] Goldstein, 'Abnormal Mental Conditions in Infancy', p. 551.
[486] *Ibid.*
[487] *Ibid.*, p. 554.
[488] *Ibid.*
[489] *Ibid.*, p. 553.
[490] See Hochmann, *Histoire de l'autisme*, pp. 31–3.

impairment that underlies these 'symptom complexes', namely the defect of the abstract attitude.

How should we understand Goldstein's ambivalent relations to organismic life and autism in particular? In his work, humanisation coexists with dehumanisation, and his unorthodox gestures as a clinician are constantly accompanied by new forms of pathologisation. These tensions, core to his conception, were highlighted by Sacks in his foreword to *The Organism*, where the younger neurologist describes his senior:

> Given his clinical and philosophical hospitality to the "inward," to the actual experiences, the life-worlds, of his patients, one wonders whether he might have moved, at the time when he was writing *The Organism*, to a completely existential viewpoint, to the creation of an existential neurology comparable to the existential psychiatry being developed then by Ludwig Binswanger and others. There are certainly hints of this, here and there, in his thought; but, finally, he shrank from so radical (and, as he perhaps thought, so unscientific) a move and maintained, at least in *The Organism*, a certain abstractness, a generalizing distance, from the life-worlds he conveyed so vividly in his histories.[491]

Might it be that because of the complexities of his personal and professional life, Goldstein was never able to resolve the duality between abstractness and concreteness? That he was constantly forced to oscillate between opposite positions? That his ultimate preference for the abstract over the concrete reflects the tendencies of his time and the aims of the fields he navigated – neurology, psychology, philosophy – namely, the pursuit of general definitions of health, pathology, and human nature?

In this interpretation, autism plays a central role. I wonder whether the figure of 'autism spectrum disorder' that has now become part of the latest version of the DSM was somehow already present in Goldstein's thinking, albeit in a different form. Goldstein's work bore a major conceptual tension that crystallised in the form of the blurry line between the normal organismic search for *order* and the pathological rigidity that leads to *disorder*. Goldstein opposed self-actualisation (as the achievement of an adequate relationship with the environment) to self-preservation (as the nostalgic yet artificial return to a lost state of equilibrium). However, one cannot exist without the other. At once orderly and disorderly, the living organism is permeated by a fundamentally ambivalent reality, which I call dis/order here. This is, of course, the same tension that permeated Uexküll's work under the name of dis/harmony, and the main conclusion of my parasitic readings throughout Part I of this thesis.[492]

---

[491] Sacks, 'Foreword', p. 12.

[492] This discussion will also return in Arnold Gehlen's philosophical anthropology (Chapter 3) with the tension between deficiency and institution and features prominently in Florence Burgat's philosophical ethology with the thesis of the *freedom* and *restlessness* of animal life.

In the manner of Umwelt theory, Goldstein's theory of the organism was primarily focused on biological matters, but occasionally ventured into the realm of politics and political history. As Iván Moya Diaz notes, Goldstein thought that the rise of fascism in the West could be attributed to a pathological response to overwhelming anxiety. He explained that 'tyrants use national anxiety to transform people into masses and lead them to surrender their freedom, courage and reason, and to find protection in external will'.[493] Accordingly, Goldstein believed that, to resist fascism, it was not necessary to eliminate anxiety entirely, but rather to learn to face it through the 'abstract attitude' of reflection. The fascist-leaning masses, failing to resort to the abstract attitude, were increasingly surrendering to 'catastrophic reactions' which led them to 'concrete restricted behaviors and the imposition of strict order, norms, and homogeneity'.[494]

It is worth noting that, in the mainstream figurations of autism today, autistic people are often described as rigid individuals constantly turning to order, norms, and repetition to cope with change-related anxiety. These reactionary figurations sometimes function as a way for advocates of neoliberalism and far-right extremism – if not both at once – to recruit autistic people into their political agendas, respectively as critics and proponents of reactionary conservatism. This is increasingly observed in the context of anti-trans and anti-ecological politics, where autistic people are at once mobilised to resist the destabilisation of the sex/gender system[495] and criticised for their desire to stabilise the climate.[496] Given Goldstein's description of autistic people as overly fixed on order and behavioural routines, could his thinking be seen as evidence of the diffuse tendency to understand autism as a form of conservatism already in the early stages of autism research?

At once order and disorder, autism crystallises some of the core social tensions inherent to dishuman modernity in the West, from the fear of change and pathology to the compulsory pursuit of order and normality. As such, in this configuration, the figure of the autistic functions 'not solely as an individual pathological phenomenon but also as a collective behavior expressed through unconditional adherence to a fascist order. This does not only go against individual self-realization but ultimately results in a denial of humanity.'[497]

This idea that autism functions as a representation of conservative principles – whether neoliberal or reactionary, when not both at once – could perhaps explain why, despite Goldstein's attempt at *humanising* his autistic patients, he also painted a portrait of their alleged

[493] Moya Diaz, 'Coming to Terms with "Self-Actualization"', p. 60.
[494] *Ibid*., p. 61.
[495] See, for instance, Pyne, 'Autistic Disruptions, Trans Temporalities'.
[496] See, for instance, Ombre Tarragnat, '"Le personnel est climatique". Les corps-météo autistes et le posthumanisme féministe entre météorisation et (dés)acclimatation", *Sextant*, vol. 41 (2024), pp. 157–69.
[497] Moya Diaz, 'Coming to Terms with "Self-Actualization"', p. 61.

inhumanity. While Uexküll positioned himself on the side of the conservative, Goldstein's declared anti-fascist commitment led him to a more explicitly oppositional stance on autistic rigidity. Just like health and disease in Goldstein's conception, which could never be concretely opposed in a dualistic fashion, the so-called autistic *disorder* is also framed as *too orderly* a way of dealing with anxiety. This dis/orderly and ultimately dishuman figuration anticipates, we shall see, the conclusion of my parasitic readings of Arnold Gehlen's philosophical anthropology in Chapter 3.

CONCLUSION

This second chapter continued down the road of parasitic reading of autism into posthumanist philosophies by introducing and discussing Kurt Goldstein's theory of the organism and its reception. This shed retrospective light on the genealogy of Uexküll's thinking in French philosophy, where the *Umweltlehre* was introduced and discussed via Goldstein, and in US-American psychology, where Goldstein's thinking was read through the lens of an American culture of individualist capitalism and humanism.

This last point proves particularly instructive for the rest of this thesis, where ontological, epistemological, and political gestures of humanisation will repeatedly prove to be associated with, or rather deeply rooted in, dehumanisation. This is not only true of Goldstein's reception by humanistic psychologists, but also of Goldstein's thinking itself, whose project of thinking human nature in the light of pathology is evidence of a dishuman logic. In this sense, even though parasitic readings of Goldstein made humanistic and organicist ideas available for posthumanist(ic) and neuroqueer thinking, those frameworks remain permeated by potentially problematic notions such as the ideal of pathology lite.

In this regard, contrary to Umwelt theory, which predated the scientific 'discovery' of autism, the theory of the organism was directly applied to autism by Goldstein. This historical context provided an instructive case study of how potentially (neurodiversity-)affirming conceptual logics can coexist with literal forms of pathologisation within a theory. Similarly, whereas Uexküll focused on nonhuman animals, of whom autistic humans appeared the closest kin within humanity, Goldstein 'left the animals behind' (as Florence Burgat suggested) to develop an anthropocentric philosophical anthropology. In this approach, because they failed to meet the (neuronormative) standards of humanity (order, harmony, abstract attitude, etc.), autistic people were relegated to inhumanity.

In the next and final chapter of Part I, I turn to Arnold Gehlen's theory of the *Mängelwesen* to complete my parasitic genealogies of dishuman modernity.

CHAPTER 3 – FROM THE WEAK TO THE AUTISTIC: ARNOLD GEHLEN'S THEORY OF THE *MÄNGELWESEN*

INTRODUCTION

This chapter examines autism as a figure of deficiency and disorder in Arnold Gehlen's theory of the *Mängelwesen*. First, it introduces and discusses Gehlen's philosophical anthropology and its reception in twentieth-century European philosophy, highlighting readings and genealogies that alternate between hyperconservative and revolutionary political agendas, as well as between various ways of engaging the humanist tradition (namely, neo-, post-, trans-, and anti-humanism). Then, the chapter introduces parasitic readings of autism and disability into Gehlen's anthropology. The second section demonstrates that, while Gehlen described human nature as inherently handicapped, this superficial mobilisation of a dishuman perspective – akin to the logic of 'rhetorical prosthesis' – served the function of justifying a politics of compulsory able-bodiedness. Finally, by highlighting the proximities between Gehlen's *Mängelwesen* and autistic subjects and discussing a recent use of the autism metaphor to describe Gehlen's anthropology, I show that autistic traits are described simultaneously as disorderly responses and promises of hyperconservative orderliness.

I — THE THEORY OF THE *MÄNGELWESEN* AND ITS RECEPTION

In this first section, I examine the theory of the *Mängelwesen* and its reception from Gehlen's time to this day. I begin by introducing the main aspects of the theory. Beginning with an anthropological theory of human nature as deficient, Gehlen moves on to develop a theory of action that follows lines of human exceptionalism, in order to, eventually, articulate a conservative theory of institutions.

Then, I introduce Gehlen's ambivalent reception in twentieth-century German philosophy and his non-reception in French philosophy until recent years. I show how Gehlen's Nazism brought him much criticism from German thinkers, even though his theory remained influential and was sometimes taken up through parasitic readings. In France, the anti-humanism

developed by Althusser, Derrida, and Foucault (among others) made German philosophical anthropology unpopular until much later.

Finally, I examine the various ways in which Gehlen's philosophy has been described to this day in relation to humanism. For some, like Christian Sommer, Stefan Herbrechter, and Alberto Gualandi, Gehlen's anthropology may be positioned within a genealogy of posthumanism through its Nietzschean inspirations, its legacy in German thought (for example, in Blumenberg or negative anthropology), or its emphasis on inhuman components of human life, such as technology. For others, however, the Nietzschean figure of the *Übermensch* and Gehlen's call to distance ourselves from humanity's biological nature through institutions, culture, and technology take Gehlen's anthropology closer to a proto-transhumanism. According to Roberto Marchesini, Gehlen's Promethean and Epimethean conceptions of humanity and animality (respectively) turn his philosophy into nothing short of a neohumanism.

1. Introducing Arnold Gehlen's Theory of the *Mängelwesen*

Arnold Gehlen (1904-1976) was a German philosopher, anthropologist, and sociologist who developed an influential conservative theory of the human as a deficient being, or *Mängelwesen*. With this theory, Gehlen contributed to the growing movement of German philosophical anthropology, which had been developed before him by Max Scheler and Helmuth Plessner. Despite the similarities between these three thinkers, German philosophical anthropology was far from a unified school of thought. It was, instead, a set of solitary projects.

In this regard, Gehlen's philosophical anthropology of the *Mängelwesen*, which I will describe below, was not the ultimate stage of his intellectual career. Gehlen used this foundation to develop a social theory of action and a theory of institutions. His major book, *Man: His Nature and Place in the World* (*Der Mensch: Seine Natur und seine Stellung in der Welt*[498]), published in 1940, introduced his 'elementary anthropology'[499] and predated by sixteen years the publication of *Urmensch und Spätkultur* (Primitive Man and Late Culture).[500] The latter, first envisioned as the second volume of *Man* – or *Man II* – derives Gehlen's anthropological theory into a theory of institutions. Throughout these various stages in his thinking, Gehlen slowly turned from philosophy to sociology and anthropology. Between these two dates,

[498] Arnold Gehlen, *Der Mensch: Seine Natur und seine Stellung in der Welt*, Berlin: Junker & Dünnhaupt, 1940.
[499] Arnold Gehlen, *Man: His Nature and Place in the World*, New York: Columbia University Press, 1988, p. 8.
[500] Arnold Gehlen, *Urmensch und Spätkultur: Philosophische Ergebnisse und Aussagen*, Bonn: Athenäum-Verlag, 1956.

however, Gehlen published several revisions of *Man*. The English translation was based on the fourth edition, which was published in 1950.

a) **An Anthropological Theory**

Gehlen's famous concept of the *Mängelwesen* refers to the idea that the human being is uniquely positioned in nature due to its inadaptedness and lack of specialisation. It is not equipped to live in a specific environment. Gehlen explicitly recognises having borrowed the concept from the Prussian philosopher Johann Gottfried Herder,[501] who, before him, had already 'assured that man is by far inferior to the animals in the intensity and reliability of his instincts and indeed that he does not have at all what in many animal species we regard as innate artifactive skills and drives'.[502] Gehlen differentiated the animal from the human by arguing that the animal is naturally endowed with all the instincts necessary to navigate the environment in which its species has lived. On the contrary, the human is described as fundamentally deficient: it lacks the right instinctual dispositions that would allow it to live as naturally as the other animals.

From this lack of instincts follows that an 'excess of impulses' [*Antriebsüberschuss*] is 'one of [Man's] most salient features', according to Gehlen.[503] These impulses, which are described as 'plastic' and 'world-open',[504] contrast with the predetermined instincts of the animal, who is not open to a world, but rather *poor in world*, as Heidegger would later come to write. The human excess has very concrete effects on one's life, particularly on the sensory level:

> In light of the above, man's world-openness might appear to be a great burden. He is flooded with stimulation, with an abundance of impressions, which he somehow must learn to cope with. He cannot rely upon instincts for understanding his environment. He is confronted with a "world" that is surprising and unpredictable in its structure and that must be worked through with care and foresight, must be experienced. By relying on his own means and efforts, man must find relief

[501] Gehlen, *Man*, pp. 73–6.
[502] Johann Gottfried Herder, *Essay on the Origin of Language*, New York: Ungar, 1966, p. 103, cited in Gehlen, *Man*, pp. 73–4.
[503] *Ibid*., p. 52. For more on this idea, see Gehlen, '7. The Excessive Nature of Impulses and Their Control', in *Ibid*., pp. 49–53. In the opening of the chapter, Gehlen explains that he borrows the argument from Alfred Seydel and Max Scheler. In his foreword to *Man*, Karl-Siegbert Rehberg also mentions an inspiration from Freud. See Karl-Siegbert Rehberg, 'Arnold Gehlen's Elementary Anthropology—An Introduction' in Arnold Gehlen, *Man: His Nature and Place in the World*, New York: Columbia University Press, 1988, p. *xiii*.
[504] Gehlen, *Man*, p. 297, among other occurrences. Gehlen borrows this notion from Max Scheler.

from the burden of overwhelming stimulation; he must transform his deficiencies into opportunities for survival.[505]

The human deficit thus reflects not only an absence but also an excess, that is to say, a constitution exposed to the dangers of nature as well as to overstimulation [*Eindrucküberflutung*], which is reminiscent of the 'intense world' described by the Markrams in Chapter 1. In this way, whereas the instinct – or the Umwelt in Uexküll's theory – suggest that the animal reacts to *some* cues from the environment and not others, the human in Gehlen somehow perceives *all* cues, or at least a much larger amount. It is highly exposed to its surroundings, and the overstimulation that comes from it is the result of an indeterminacy. In other words, the human is not bound to an Umwelt like the animal is. This is what Gehlen calls the 'field of surprise',[506] namely, an excess of openness, which is unique to the human being.

Such a distinction is founded upon the idea that the animal is caught up in the immediacy of the moment, whereas, for the human, there is a gap between the perception of the stimulus and the individual's response. The latter remains uniquely undetermined and plastic. Following Nietzsche, Gehlen therefore describes the human as 'the not yet determined animal' [*das noch nicht festgestellte Tier*].[507] This indeterminacy signals a fundamentally *unfinished* nature of the human, which can for example be observed in children, who have not yet learned to channel and filter sensory stimulation and are more easily overstimulated than adults.

The ontological premise of a deficient constitution in this *Mängelwesen* leads Gehlen to a fundamental anthropological question: 'how can such a vulnerable, needy, exposed being possibly manage to survive?'[508] This question can be interpreted as a reformulation of the traditional anthropological question by Kant: 'What is Man?' This is, in any case, the argument put forward by the French translator of Gehlen's *Man*, Christian Sommer.[509] Gehlen's interest in nature and animals in particular is therefore not the departure point for a philosophical ethology, let alone a philosophical biology, but for a resolutely anthropocentric philosophical anthropology.

Gehlen indeed argues that the human being is given a unique 'position' [*Stellung*] in the world, which is not reducible to a difference of degree from other species.[510] On the contrary, Gehlen describes Man's place in nature as the result of what we could call, with his personal

[505] *Ibid*., p. 28.
[506] *Ibid*., pp. 28, 119, 161, 328.
[507] *Ibid*., p. 4.
[508] *Ibid*., p. 12.
[509] See Christian Sommer, 'Présentation de l'édition française', in Arnold Gehlen, *L'Homme. Sa nature et sa position dans le monde*, Paris, Gallimard, 2020, p. 16.
[510] This distinguishes Arnold Gehlen from Helmuth Plessner, who championed a gradualist conception of life in *The Levels of Organic Life and the Human: An Introduction to Philosophical Anthropology*, New York: Fordham University Press, 2019.

assistant Karl-Siegbert Rehberg, a 'complete project of nature'.[511] With this conception, one is faced with a form of plan teleology that is largely reminiscent of Uexküll's *Planmäßigkeit*. Gehlen's differentialist conception is based on the idea – also found in Uexküll – that nature has given animals the necessary morphology and abilities to accomplish the various functions and behaviours that life in the wild requires: 'Instinctive movements, that is, innate, species-specific behavior patterns, are of course normally triggered by the appropriate object (another animal, sexual partner, prey, enemy, etc.) which the animal encounters in its environment'.[512]

Far from an evolutionary perspective rooted in Darwinism, there seems to be a more teleological account at play in Gehlen's philosophy, which, as I have noted, was not uncommon at that time. Roberto Marchesini even describes Gehlen's perspective as anti-evolutionary:

> the weak point of Gehlen's proposal is the idea of a side project, that is to say, one that does not follow the phylogenetic coordinates proper of other animal species. To think that a totally unfit species lacking functional correlations might evolve all of a sudden, as you can see, requires moving away from the foundational principle of the bios based precisely on adaptation: that is, on the correlation of the species to a certain function. For Darwin's theory, it is the species that builds its rank and not the other way round, which would lead to a fixist vision of the living, so Gehlen's fixist legacy is evident.[513]

Such a conception, he adds, is not accidental: 'Arnold Gehlen's rejection of the Darwinian theory is inevitable and consistent, not a hiccup'.[514] In the final analysis, Marchesini notes, such an approach goes back further than Herder: it originates in the ancient myth of Prometheus and Epimetheus,[515] whose oldest record is found in Hesiod's *Theogony*.[516] The myth was later found in Plato's *Protagoras*, where it has become a popular reference in modern Western philosophy.

The myth is the tale of two brothers, Prometheus and Epimetheus, sons of Iapetus and Clymene. Zeus asks the two brothers to travel to the Earth and give it living creatures. He entrusts them with godly presents, which they should distribute among their creations. Epimetheus, whose name means 'hindsight' or 'afterthought', lives up to this reputation: he acts thoughtlessly and completes the task in haste. With each creation, he distributes a gift: smell, sight, wings, claws, fur, skin, strength, endurance, and the like. When he is done working, Epimetheus realises he has given away all of Zeus's presents. His brother, the 'forethinker' Prometheus, was more intentional with his craft and spent all this time designing a perfect creation: the human, whom he shaped in the image of the gods. When he is done with the

[511] See Rehberg, 'Introduction', p. *xi*.
[512] *Ibid*., p. 18.
[513] Marchesini, *Over the Human*, p. 41.
[514] *Ibid*.
[515] Gehlen mentions the Promethean nature of Man twice in the book: pp. 25, 41.
[516] Hesiod, *Theogony & Works and Days*, Oxford and New York: Oxford University Press, 1988, lines 507–616.

finishing touches, he finds his creatures completely defenceless against the cold and his brother's powerful creations. Prometheus, seeking to protect humans, goes to Zeus to ask for one more gift: fire. Despite Zeus's indignation at such a bold request, Prometheus decides to steal the godly attribute and offers it to his indigent creatures. In doing so, he changes their destiny forever, paving the way for the development of human technology, culture, and civilisation. For this disobedience, Prometheus is punished by Zeus, who condemns him to a life of eternal torment. The chief god also creates the first woman, Pandora, whom he sends down to Earth. Warned by his brother against the idea, Epimetheus decides to marry Pandora nonetheless. The latter, who carries her infamous jar, takes off the lid and lets all sorts of evils and diseases, alongside the curse of hard labour, spread onto the Earth.

In the modern age, Prometheus has come to represent the dual status of the human – at once exceptionally clever and uniquely cursed. On the contrary, Epimetheus has come to represent the allegedly thoughtless nature of nonhuman animals. In many ways, the myth has embodied some of the most problematic tropes of Western philosophy, such as the sinful woman, the forceful yet stupid animal, and the wise, rational man. This is also the myth that Gehlen borrows to support his theory of a human species that is at once vulnerable and exceptional. From its unique position in the earthly nature follows, for Gehlen, that the human being needs language, culture, and technology to survive.

Moreover, while the myth of Epimetheus and Prometheus seems to give nonhuman animals an honourable role in nature as powerful creatures, they also suffer – albeit only in comparison to the human – from the rushed labour of Epimetheus, who does not even consider making them in the image of the gods. This, too, transpires in Gehlen's description of animality. Indeed, the idea that animals do not open to the world but are rather perfectly inscribed in their surroundings, thanks to innate 'species-specific' instincts, leads to an undervaluation of their spontaneity and collective achievements.[517] This idea is captured by a quote from Chapter 15 of *Man*, 'The Limits to Animals' Achievements', in which Gehlen suggests that '[t]he striking indifference of these animals toward anything that does not directly address their instincts, toward whatever does not fit into their species-specific environment, can be attributed to the monotony and "lack of ability" of their senses and movements.'[518] It is noteworthy that a discourse of ability comes together with speciesist (under)expectations here: this will be useful to remember for my discussion of ethonormativity – a form of species-based ableism and/or

[517] The concept 'species-specific' is iterated six times across the book. See Gehlen, *Man*, pp. 18, 36, 71, 73, 143, 352.
[518] *Ibid*., p. 143.

neuronormativity – in Chapter 6. Indeed, Gehlen is justified in thinking of the animal as ensconsed in its milieu only insofar as its presents 'behaviour typical to its species'.[519]

This dualistic and teleological conception of animality has reinforced the Western notion that animal existences are devoid of culture, language, and reason. For a thinker like Gehlen, this is because these exceptional attributes were simply not part of Nature's plan for animals. Such a conception of animality also leads to a form of homogenisation, where the intraspecific diversities that constitute various animal species – or what I call intraspecific ethodiversity in Chapter 6 – are themselves backgrounded, if not completely removed from the picture.

Beyond Herder and the myth of Prometheus, Gehlen's inspirations bear witness to the proximity of his conceptual gestures to those of many of his contemporaries, including Uexküll. For example, Gehlen draws from German idealism via *Lebensphilosophie*. The concept of life, he believes, overcomes the Cartesian body/mind dualism. In this sense, Gehlen's work draws large inspiration from the biological sciences of his time. While, contrary to Uexküll and Goldstein, Gehlen was not a scientist himself, his philosophy operates on similar grounds and demonstrates a gesture of thorough engagement with the sciences. In this way, his anthropology can be described as empirical and materialist: like Uexküll's theoretical biology, it anchors the Kantian *a priori* in a biological principle. This gesture – which, as we see, goes well beyond Gehlen himself – is evocative of the later movement of reconnection with the sciences found in contemporary posthumanism and new materialisms – a discussion I return to below. For now, I turn to Gehlen's theory of action, which he develops as the logical consequence of his elementary anthropology of the *Mängelwesen*.

b) **A Theory of Action**

To introduce Gehlen's theory of action, it is useful to return to his version of the anthropological question: 'How can such a vulnerable, needy, exposed being possibly manage to survive?' To answer this question, Gehlen posits the need for a form of 'relief' [*Entlastung*],[520] a practice aimed at reducing the complexity of the human world through cultural practices and artefacts that Gehlen presents as proper to the human.

[519] *Ibid*., p. 18.
[520] The translation of the German '*Entlastung*' by 'relief' in English may appear somewhat imprecise. Indeed, the original is constructed from two main components: the prefix 'ent-', which signals an erasure, removal, or destruction, and the noun 'die Last', which refers to a 'load' or 'charge'. In this sense, the French translation better preserves the trace of the load by speaking of '*délestage*'. While 'relief' is easily understandable, perhaps 'offloading' would be a more direct translation.

Rehberg, who signs the introduction to the English edition of *Man*, explains that '[t]he concept of relief refers to Gehlen's view that the human being is able to increase the possibilities and the means for survival by shifting behavior toward those functions that require no effort and are purely suggestive.'[521] Language constitutes such an instrument of relief, for Gehlen, who dedicates many pages to the discussion of its origin in humans. Another example can be found in the bipedal upright posture, which prepares the human for labour. Indeed, bipedalism seems coextensive with 'the free use of the hands' and 'a vertically oriented perceptual space'.[522]

This paves the way for a conception that contrasts with the more essentialist idea of biological superiority, namely, the notion that it is through labour that the human separates itself from the animal. Such a conception, which spans from Marxist anthropology to American pragmatism, is not unique to Gehlen. I propose, along with Benedetta Piazzesi, to view it as a form of '*a posteriori* anthropological exceptionalism',[523] a trend which, as the Italian philosopher reminds us, 'will enjoy lasting success and reach one of its peak moments with twentieth-century philosophical anthropology'.[524]

The idea that only humans can self-realise through labour has been claimed on the grounds of their unique possession of reflexive consciousness, which at once mediatises human activity and is transformed by it. On the contrary, animals have been assumed to act only based on species-specific instincts, which are deemed ahistorical (rather than context-dependent) and largely unreflective.[525] In this way, so much Marx as Gehlen – respectively a revolutionary progressist and a counter-revolutionary conservative – embrace a speciesist gesture here. Moreover, I suggest this approach may risk reinforcing ableist tropes. Indeed, it seems to rely on a normative concept of human exception drawn from the capacity to act. This is particularly true in authors like Gehlen – or his contemporary, the neurologist Erwin Straus – who uses the upright posture as a sign of superiority.[526]

Beyond the phylogenetic scale, Gehlen also addresses ontogenetic development. As I have noted, he mobilises childhood as a stage of human life where, he suggests, deficiency is highly visible. He views the development of children into adults as a source of relief, namely,

---

[521] Rehberg, 'Introduction', p. *xv*.
[522] Gehlen, *Man*, p. 112.
[523] Benedetta Piazzesi, *Del governo degli animali: Allevamento e biopolitica*, Macerata: Quodlibet, 2023, p. 62. I translated this and all further citations of this reference from Italian.
[524] *Ibid*.
[525] See Karl Marx, *Capital, Vol. 1*, London: Lawrence and Wishart, 1959 (1867), p. 178: 'We presuppose labour in a form that stamps it as exclusively human. A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality.'
[526] For a critique of the ableism of such perspectives, see, for example, Thomas Abram, 'Is Everyone Upright? Erwin Straus' "The Upright Posture" and Disabled Phenomenology', *Human Affairs*, vol. 24, no. 4 (2014), pp. 564–73; Kim Q. Hall, 'Limping Along: Toward a Crip Phenomenology', *The Journal of Philosophy of Disability*, vol. 1 (2021), pp. 11–33.

of 'habituation'.[527] In this regard, Gehlen's perspective explicitly thematises a problem that is only latent in Uexküll's thinking, namely, the absence of harmony:

> Because man presents a great problem to himself (one that he can attempt to solve only through action in conjunction with the problem of his survival), because he must develop a hierarchy of needs and interests, and, finally, because he must establish himself within a system of *oriented* will, all "*harmonic*" views of man, which ignore this incredible inner tension, are false.[528]

To solve the major problems of human life – such as dis/harmony and dis/orientation – Gehlen calls upon education [*Erziehung*] and discipline [*Zucht*]. It is indeed through action at large that the human can relieve its overstimulation and mitigate its deficient constitution.

Such a theory of action remains partly atypical for Gehlen's time. In this sense, Gehlen lamented the lack of interest in the pragmatist category of 'action' (particularly the work of Ralph Waldo Emerson, William James and John Dewey) in the Germanic space.[529] In this context, pragmatist thought was mostly mobilised by the political right, which is not insignificant here.[530] Indeed, everything that acts as the intermediary between the action and its goal may now appear as a form of relief: 'Gehlen thus identifies habit and tradition (that is, all means of habitualizing behavior) as very important instruments for achieving relief.'[531] That said, Gehlen also identifies potential pitfalls of relieved existences – such as those of intellectuals and artists – which he finds too disconnected from real-world action.[532]

Along with Gehlen's conservative mindset, this critique served the purpose of justifying strong institutions. By opposing action and reflection in sometimes too binary a way, Gehlen played into the fascist notion of the primacy of action and a simplistic anti-intellectualism. At the same time, his critique of more privileged social positions, indeed disconnected from the necessity of labour, may also be mobilised for a critique of capitalist societies.

c) **A Theory of Institutions**

Gehlen's philosophy results in a theory of institutions. He argues that human deficiency creates a need for institutions that can effectively channel human impulses and order society. For him, this must take the form of a strong State in the image of the Hobbesian Leviathan.[533] The state

[527] Gehlen, *Man*, p. 121. For the example of the child, see also *Ibid*., p. 226.
[528] *Ibid*., p. 51, emphasis mine.
[529] Rehberg, 'Introduction', p. *xiv*.
[530] *Ibid*.
[531] *Ibid*., p. *xvi*.
[532] See, for example, *Ibid*.; Gehlen, *Man*, p. 348.
[533] In this sense, Rehberg notes that Gehlen took inspiration from Hobbes, to whom he traced the origin of pragmatism. See Rehberg, 'Introduction', p. *xv*.

of nature is unlivable for the human, who, like the Promethean creature, is not equipped to survive in the wild. A strong political institution that regulates human action is therefore in order.

Similarly, Gehlen views culture as a form of second nature: 'Man exists in a "second Nature," a world he has transformed to serve his own needs, *"une nature artificielle,"* as Georges Sorel called it. This nature is not simply "artificial," but actually a "cultivated" Nature, because we discover possibilities in it which, if left to itself, Nature would not pursue.'[534] In a traditional anthropocentric (and perhaps androcentric and colonial?) gesture, Gehlen sees this second nature as a form of mastery over the actual nature: 'He thereby gains control over his world, acquires an overview of it, and can transform the field of surprises into a second, artificial nature.'[535]

Human institutions are therefore a tool of differentiation between the human and the human: '"Unnatural" culture is the product of a unique being, itself of an "unnatural" construction in comparison to animals. The cultural world exists for man in exactly the same way in which the environment exists for an animal.'[536] In this theoretical perspective, we can also find some of the tropes described in Chapters 1 and 2, such as symbiosis and parasitism:

> Gehlen believes that "guiding systems" compensate for the *Mängelwesen*'s fundamental lack of an innate biological capacity to adapt by restoring a natural symbiosis between humans and their environment. These systems, or institutions, compensate for the absence of this natural symbiosis, as found in animal groups, by artificially producing a human equivalent, restoring the lost instinctive certainty of animality to a higher level, that of habitualised, "quasi-automatic" and stabilised behaviour, regulating feelings, thoughts and values.[537]

In this context, Gehlen draws on the example of totemism to explain that the development of self-awareness in humans is rooted in the identification and imitation of an animal other. To produce such a kind of symbiosis in itself and with its environment, the human feeds themself on the nonhuman animal, which serves as a guiding system or orientation device. On this issue, Gehlen reports that the US-American historian 'Gerald Heard once made the insightful remark in this context that all parasitical relationships strive toward a stabilization of the symbiosis.'[538] In this example, the human is likened and brought closer to the animal only because it is fundamentally different from it. Whether this is the result of a humanist or posthumanist logic remains to be discussed.

---

[534] Gehlen, *Man*, p. 295.
[535] *Ibid.*, p. 134.
[536] *Ibid.*, p. 29.
[537] Sommer, 'Présentation', p. 23, translation mine.
[538] Gehlen, *Man*, p. 392.

2. Parasitic Readings of Gehlen in Twentieth-Century French and German Philosophies

Gehlen's work has faced highly variable forms of reception across Western Europe. In Germany, he was soon recognised as a major thinker, though, as we will see, his political engagements also contributed to his marginalisation. Indeed, whereas Gehlen presented his theory as an empirical and apolitical approach, most commentators on his work, starting with Rehberg, consistently note a political dimension, often classified as right-wing.[539] Similarly, Christian Sommer has noted that there is, in Gehlen's work, a 'hyperconservative' dimension.[540]

Gehlen's conservatism, like Uexküll's, is directly evident in his life, if not even more so. Indeed, in the inaugural lecture he gave after being appointed Professor in Philosophy at the University of Leipzig in 1934 – replacing his mentor, Hans Driesch – Gehlen 'clearly expressed his indebtedness to the fascist regime'.[541] As Rehberg makes clear, it is not unlikely that the national socialists played a role in the selection of Gehlen to replace the pacifist Driesch, although no direct evidence of this has been found. Gehlen, like Uexküll, also showed initial sympathy to the fascist regime, stating that 'the national socialist movement [had given] a new drive for life and new structures for existence."[542] This sympathy is not reducible to a private matter unrelated to Gehlen's work. On the contrary, it directly reflects Gehlen's preference for a strong political state: 'Gehlen, who made his career under the Third Reich, certainly believed that the National Socialist state was a possible historical example of a "supreme leadership system" (*oberstes Führungssystem*), capable of exercising the "imperious power" of a Leviathan state.'[543]

In this way, he joined the NSDAP as early as 1933,[544] and his affinity with the regime is described as considerable, at least until 1935. This subsequent drift apart from Nazism can be linked to diverging views on the key question of racism. Like Uexküll, Gehlen was a conservative, but he was not a racist in the sense of a racialist. His philosophy explicitly rejects biologism, and some suggest that it even undermines the foundations of all racist thinking.[545] For this reason, Gehlen is soon criticised by Ernst Krieck, a Nazi philosopher of organicism, who reproaches him for his 'apolitical' stance.[546]

---

[539] See *Ibid*., p. *xii*.
[540] Sommer, 'Présentation', pp. 25–6.
[541] Rehberg, 'Introduction', p. *xxix*.
[542] Gehlen, cited in *Ibid*.
[543] Sommer, 'Introduction', p. 22
[544] See Rehberg, 'Introduction', p. *xxix*.
[545] *Ibid*., p. *xxx*.
[546] Sommer, 'Présentation', p. 22.

This ambivalent reception is corroborated by Rehberg, who explains that 'as is true as well of his impact on postwar German sociology, Gehlen's reception has been contradictory, for he is simultaneously a "classical thinker" and an outsider.'[547] It is clear that Gehlen's politics were the reason for his ambivalent reception in Germany. Overall, Gehlen was mostly read through a critical lens, even after the war and after Gehlen's drift from National Socialism. He was, in this way, the author with whom critical theory has engaged most critically, and his work is often described as the right-wing counterpart to German critical theory.[548] Gehlen continued to represent continuity with Germany's Nazi past and was the philosophical figure elected as the main spokesperson in the debate. Gehlen's work has therefore become essential to many analyses of the political debates of the second half of the twentieth century in Germany.

Even within the fascist movement, Gehlen's anthropology faced hardships. From the 1940s onward, there has been a movement of distancing from his work, which is motivated by the unfavourable reception of his anthropology in the Nazi party. His universalistic conception of the *Volksgemeinschaft*, which did not align with the racist agenda of the movement, was explicitly critiqued by Krieck. This made Gehlen appear as a dangerous non-conformist rather than a loyal supporter of the party.

For these reasons, Gehlen's reception in philosophy has been contradictory. At once highly criticised, it has also inspired important authors such as Blumenberg, Luhmann, Adorno, Habermas, and Bloch. For example, Hans Blumenberg – who was detained in a Nazi concentration camp in 1944 – discussed Gehlen's figure of the *Mängelwesen* as a 'useful description'.[549] In his *Description of the Human*, he 'offers an original and fruitful phenomenological reading of Gehlen's "elementary anthropology" while problematising the authoritarian consequences of his theory of institutions'.[550] Instead of using the hypothesis of human deficiency to support strong institutions, as Gehlen did, Blumenberg concluded a need for solidarity and protection.[551] In a different context, Niklas Luhmann, who developed a sociology of social systems, formulated a concept of 'reduction of complexity' which may be likened to Gehlen's *relief*.[552]

Theodor Adorno, who, together with Max Horkheimer, contributed to the development of the Frankfurt school of critical theory, shared Gehlen's criticism of mass societies in the modern age. Some commentators also report that the critical theorist entertained a friendly

[547] Rehberg, 'Introduction', p. *x*.
[548] Rehberg notes that Gehlen's 'views became the target of a leftist critique of anthropology'. *Ibid.*
[549] Hans Blumenberg, *Description de l'homme*, Paris: Éditions du cerf, 2011, p. 215, my translation, cited in Sommer, 'Présentation', p. 16.
[550] *Ibid*., p. 26. See, for example, Hans Blumenberg, 'Description of the Human', *Common Knowledge*, vol. 30, no. 2 (2024), pp. 226–78.
[551] See Olivier Agard, 'Arnold Gehlen et les mutations du conservatisme en RFA', *Revue d'Allemagne et des pays de langue allemande*, vol. 46, no. 2 (2014), p. 327.
[552] *Ibid*., p. 328.

relationship with his conservative counterpart.[553] The two thinkers nonetheless disagreed on many things, for instance, whether everyone should be expected to bear the charge [*Belastung*] of consciousness and reflexivity, like the philosopher: Adorno thought so, Gehlen disagreed.[554]

Jürgen Habermas, one of the main representatives of German critical theory today, similarly contributed to the reception (and mobilisation) of Gehlen in post-war Germany while being unequivocally critical of his 'neo-conservatism'.[555] In a text on philosophical anthropology, he suggests that the theory of the *Mängelwesen* can be mobilised in a politically neutral or even critical approach.[556] Such a perspective might be found in Ernst Bloch's writings, who developed a Marxist perspective which bears similarities to Gehlen's anthropology. In *Spirit of Utopia*, for example, Bloch explains that the human, contrary to the human, cannot 'get by with inborn reflexes', and 'becomes only more dependent on deliberate planning, in the building of nests and related activities'.[557] To be sure, Bloch's argument that bipedalism elevates the human being towards utopia, if not biologically, at least metaphorically,[558] relies on a revolutionary perspective inspired by Friedrich Engels,[559] but it is also reminiscent of Gehlen's arguments.

As we see, for Gehlen's contemporary and later commentators, his philosophical anthropology must not be paired with a conservative political declination. On the contrary, some of the main commentators of Gehlen today have explicitly advocated for parasitic readings of his work. This is the case with Karl-Siegbert Rehberg, whose analysis deserves to be cited at length:

> I do not believe that Gehlen's vision of the human being […] must necessarily lead to a conservative theory of stabilization […]. Gehlen was able to do this only because of the one-sided nature of his own premises and findings, for, based on the anthropological theses developed here, one could also identify possibilities for the emancipation of the human being. This would not of course signify a liberation from the anthropological facts, but would instead focus on the versatility, the openness, and "non-determined" nature of the human species. Thus, it is also

[553] See, for example, Christian Thies, *Die Krise des Individuums: Zur Kritik der Moderne bei Adorno und Gehlen*, Reinbek bei Hamburg: Rowohlt, 1997.
[554] See Friedemann Grenz, *Adornos Philosophie in Grundbegriffen: Auflösung einiger Deutungsprobleme. Mit einem Anhang „Ist die Soziologie eine Wissenschaft vom Menschen? Ein Streitgespräch"*, Frankfurt am Main: Suhrkamp, 1974, p. 250: 'So here we are, at the point where you say "yes" and I say "no"'.
[555] See Jürgen Habermas, 'Die Kulturkritik der Neokonservativen in den USA und in der Bundesrepublik', in *Kleine politische Schriften*, Frankfurt am Main: Suhrkamp, 1981, pp. 30–56.
[556] See Jürgen Habermas, 'Philosophische Anthropologie: Ein Lexikonartikel', in *Fischer-Lexikon Philosophie*, ed. A. Diemer and I. Frenzel, Frankfurt am Main: Fischer, 1958, pp. 18–35.
[557] Ernst Bloch, *Spirit of Utopia*, Stanford: Stanford University Press, 2000, p. 234, cited in Cat Moir, 'Biocentrism and Marxism: Bloch's Concept of Life and the *Spirit of Utopia*', *Praktyka Teoretyczna*, vol. 35, no. 1 (2020), p. 26.
[558] For this nuance, see Ernst Bloch, 'Marx, Aufrechter Gang, konkrete Utopie', in *Politische Messungen, Pestzeit, Vormärz*, Frankfurt am Main: Suhrkamp, 1970, p. 453.
[559] See Moir, 'Biocentrism and Marxism', p. 25.

> possible to develop ways of obtaining "relief" from these oppressive burdens which would not link a stabilized existence for man so rigidly to the forms of relief represented by government and privileged monopolies.[560]

As I have shown, even thinkers who were polar opposites to Gehlen on the political spectrum have found in his 'elementary anthropology' a productive instrument to conceptualise and resist what they perceived as the alienating nature of modernity.

Gehlen's reception in German philosophy offers a compelling example of the parasitic nature of all thinking, and here, too, Gehlen's commentators provide useful descriptions of this. Christian Sommer, for one, reports that '[f]rom the "elementary anthropology" to the institutional theory, a hermeneutic consequence is not necessary. No author can anticipate or regulate the reception of their conceptuality; the extreme diversity of readings and theoretical extensions of this [Gehlen's] work bears witness to this'.[561] Similarly, reflecting on the argument he just made for a parasitic reading of Gehlen, Rehberg makes a convincing case for not evacuating the question of conservatism in contemporary uses of Gehlenian anthropology:

> These thoughts—which are quite contrary to Gehlen's own—I have interpolated here to make clear that Arnold Gehlen's "philosophical anthropology" is of course never completely separate from his own conservative values but yet it is not totally subsumed by these either. To put this another way, one does not have to understand Gehlen's anthropology solely from the perspective of his own social theory of political order. To be sure, one cannot read his anthropology without this frame of reference and, if need be, even in opposition to it.[562]

Following Gehlen's death in 1976, his 'intellectual influence, so remarkable in [the] formative years of the Federal Republic', faced a rapid decline.[563] Today, Gehlen's influence on philosophical thinking in Germany, along with Scheler and Plessner's philosophical anthropologies, has decreased considerably. It is in southern Europe, in Italy, that one must look to find a thorough historiography of Gehlen's philosophy. In that context, as Roberto Marchesini highlights, this perspective 'is still very popular today'.[564]

In French philosophy, Gehlen's work has faced a limited reception, which is likely not due, or at least not primarily, to Gehlen's conservatism, but rather to diverging philosophical orientations. Indeed, the second half of the twentieth century in France was marked by the development of antihumanist perspectives, such as those of Althusser, Derrida, and Foucault

---

[560] Rehberg, 'Introduction', p. *xxxvi*.
[561] Sommer, 'Présentation', p. 26.
[562] Rehberg, 'Introduction', p. *xxxvi*.
[563] Max Pensky, 'Anti-Dialectics: Arnold Gehlen and the Fate of Conservative Philosophical Anthropology in Post-War Germany', in *Perspektiven konservativen Denkens: Deutschland und die Vereinigten Staaten nach 1945*, ed. Peter Uwe Hohendahl and Erhard Schütz, Bern: Peter Lang, 2012, p. 206.
[564] Marchesini, *Over the Human*, p. 34.

(among many others), who all three resisted the traditional idea of human nature. Using constructionist, deconstructionist, and genealogical methodologies, these thinkers were more interested in critically interrogating the modern construction of the figure of Man than refounding it in a new biological philosophy or a philosophy of life.

Just as Uexküll's reception in French philosophy said more about the state of the latter – and about the mediating influence of Goldstein's work – than about Uexküll's work itself, Gehlen's *non*-reception in France speaks directly to the different inclinations of philosophy in that context. At the same time, could it be that the widespread antihumanism of French philosophy in the second half of the twentieth century reflects – if only indirectly – a form of (neo-)humanism in Gehlen himself? In the following subsection, I examine the various qualifications of Gehlen's theory of the *Mängelwesen* as (neo)humanism, posthumanism, and transhumanism in order to further highlight the inner tensions that constitute this approach and envision alternative genealogies of post/humanist thought.

3. Genealogies of the Theory of the *Mängelwesen* as Neo-, Post-, Trans-, and Anti-Humanism

While Gehlen's non-reception in France may be explained by the antihumanist perspectives being developed at the time, it has recently been perceived as a potential third way between a reductionist naturalism – according to which the contemporary physicochemical sciences can reground the theory of human nature – and radical constructionism – which has sometimes been described as too superficial or distant in its engagement with the sciences. In this way, the return to a philosophy of life could echo the contemporary return to life in some parts of posthumanist philosophy. As I will show in this section, such an analytical perspective remains too simple to account for the complexities of German philosophical anthropology. To better understand the specificities of this tradition and of its impacts on contemporary philosophy, I explore alternative genealogies of post/humanist thought rooted in philosophical anthropology.

In a 2023 seminar presentation, Christian Sommer proposes to bring philosophical anthropology and posthumanism into a productive dialogue. He notes that

> [t]hese are two immense constellations or nebulae, somewhat obscure. We will attempt to follow Kant's 'question of man' (*Was ist der Mensch?*), taken from the perspective of his end or death. This question, which is also very broad, is over-commented, over-stratified, and over-determined. At best, we can hope to see how, in the interstice of this questioning, a 'posthuman'

> place or perspective might emerge. The idea is to identify possibilities for thinking about what we might provisionally call the 'posthuman condition'.[565]

Mobilising Gehlen and Foucault as representatives of philosophical anthropology and posthumanism respectively, Sommer attempts to map the frictions and potential confluences between the two seemingly opposed approaches. He adds:

> While taking into account the specific contexts in which they were developed, we shall consider the confluences, transitions, transfers, and convergences between these two massive bodies of work, avoiding overly artificial comparisons where possible. These connections can only be made through a questioning approach, the formulation of hypotheses, and a re-problematisation that can bring together converging elements and shed light on the respective unthought aspects.[566]

To articulate the two perspectives, Sommer may certainly seek to avoid 'artificial comparisons', but his proposal is resolutely parasitic: his Foucault is mediated by Deleuze, his Gehlen by Blumenberg… and the two are brought together through Nietzsche. Indeed, Sommer goes back to the Nietzschean *Übermensch*, which he proposes to read into the Dionysian figure that Foucault mobilises in his 1954-1955 course on *The Anthropological Question*. Read through Deleuze's *Foucault*, Dionysus becomes, for Sommer, the divine figure of madness and ecstasy, which invites a metamorphosis (and an overcoming) of the human. In this way, Foucault's Dionysian approach overcomes and transgresses the anthropological question and the modern configuration of the human, pushing us beyond the human towards the posthuman.

The Nietzschean Dionysus is also found in Gehlen's *Urmensch*, especially Chapter 44, which is dedicated to 'Ecstasy, Intoxication, Asceticism'. In this passage, Gehlen introduces his concept of a reversal of impulsive orientation, whose two main modalities are ecstasy and asceticism. Both practices, according to Sommer, can be described as Foucaultian technologies of the self, which produce and transform the self and its subjectivity. This echoes my previous notes on Gehlen's inspiration from Nietzsche's work on the question of human indeterminacy: human incompleteness should lead to a *determination* of the human, which is also an overcoming of its natural condition of deficit.

In this sense, Sommer argues that Blumenberg's reading of Gehlen takes the human towards its end and overcoming. With this perspective, Sommer perceives a desubstantialisation of anthropology, which is no longer reducible to the Kantian metaphysical question of the essence of Man. Instead, Gehlen's anthropology poses the functionalist question

---

[565] Christian Sommer, 'Anthropologie philosophique et post-humanisme', presentation given as part of a research seminar 'L'anthropologie philosophique allemande' organised by Barbara Carnevali, Claudia Nigrelli, and Matteo Pagan, at the École des Hautes Études en Sciences Sociales, 24 May 2023. This and the following citations are a translated reconstruction based on my personal notes, which I believe to be faithful to the original.
[566] *Ibid.*

of the evolutionary conditions of possibility of the *Mängelwesen*. Explicitly anthropogenetic, the parasitic Blumenbergian-Gehlenian approach reframes the human no longer through deficiency, but through contingency and finitude. The undefined nature of the human entails a permanent state of variability and metamorphosis. This, for Sommer, opens the human to its posthuman condition: 'perhaps we have never been human, but always, already, posthuman'.[567]

For Sommer, by drawing on the heritage of French antihumanism, Anglo-American posthumanism is somehow part of the Dionysian lineage that can be traced back to Foucault and Gehlen. Could it be, then, that Gehlen's philosophical anthropology somehow participates in – if not also reconfigures – the genealogy of posthumanist or antihumanist thought? Historically, though, the figure of the *Übermensch* has been associated with transhumanism – a perspective seeking to free the human from its biological condition – rather than with posthumanism, which, especially in its feminist form, has sought to reconnect the human to the biologies and ecologies that constitute it. In this regard, Babka et al. are careful to dis/entangle transhumanism and posthumanism in their recent genealogical essay. In a useful observation, they note that '[p]opular exponents of Transhumanism, which sets itself the target of modifying and optimizing the unspecialized biological "deficient being [*Mängelwesen*]" man, foresee a not all-too-distant future in which artificial superintelligence machines shape and "unburden" the everyday lives of humans'.[568] It is indeed Gehlen whom the authors have in mind here, as evidenced by a footnote joined to the authors' mention of the *Mängelwesen*. Despite initial (and sometimes persisting) confusions, it is now well known that posthumanism is radically different from transhumanism, the latter being more of a radicalisation of humanism.[569] This suggests that Gehlen's anthropology, far from being a proto-posthumanism, may perhaps be better framed as a proto-transhumanism.

According to Alberto Gualandi, there is even an antihumanism at work in Gehlen, particularly from the late 1950s onward. Indeed, Gualandi proposes that '[a]lthough Gehlen's anthropobiological doctrine is a philosophy of man, paradoxically, its final result is "anti-humanism"'.[570] This is explained by the fact that 'human consciousness has now lost all function of mediation between the *sub*human and *over*human entities with which the human species has identified itself throughout its history.'[571] In the postmodern era, which, as we will see, anticipates and prepares the posthumanist turn, the human no longer seems able to align its

[567] *Ibid*.
[568] Anna Babka et al., 'Introduction: Posthumanist Gender Theory—A Very Rough Account', *Genealogy+Critique*. vol. 9, no. 1 (2023), p. 7.
[569] See, for example, Wolfe, *What is Posthumanism?*, p. *xv*: 'In this respect, my sense of posthumanism is the *opposite* of transhumanism, and in this light, transhumanism should be seen as an *intensification* of humanism'.
[570] Alberto Gualandi, 'Inhumanités. Anthropobiologie et postmoderne', *Cahiers critiques de philosophie*, vol. 21, no. 1 (2019), p. 192. I translated this and all later citations of this reference from French.
[571] *Ibid*.

sensory experience of the world, which has become fragmented and disintegrated, with its actions. It becomes entirely paralysed, and its consciousness is no longer capable of salvaging the unity and order of human life. This loss of unity is evidenced by the 'the divide between the inner human, who imagines itself to be the master and owner of technology, and the outer human, who is subject to its dominion.'[572] In this way, the various components that inhabit and constitute the human – the subhuman animal, the inhuman machine, and the overhuman God – are perceivably disentangled and brought to the front. This '*dystopian condition*'[573] evidences the anxieties of humanist thought, which Gualandi champions here, and Gehlen only comes to represent anti-humanism insofar as he no longer believes in the traditionally humanist unity performed by human consciousness.

Without naming it as such, Gualandi makes the case for a reading of Gehlen as a posthumanist through Dionysus. He describes it as a 'neo-Romantic vitalism'[574] that attempts to reconnect the human with its animality through totemism. The example of totemism, as I have mentioned, is developed by Gehlen in *Man*, who sees it as a potential form of relief. But Gualandi notes that, with the postmodern era, '[t]he archaic world of totemic and theriomorphic religions, where nature is still revered as a god, is now dead and buried',[575] and it is only by trying to revive and reactivate these logics that we could, with Gehlen, hope to adopt 'the least anthropocentric and most eco-friendly attitude.'[576] Seemingly embracing the opposite perspective of humanism, Gualandi rejects Gehlen's conclusions, which fail to find the origin of unity within the human itself and instead delegate it to the animal.

Rooted in a more affirmative outlook on posthumanism, Stefan Herbrechter's work (which Babka et al. cite repeatedly in the aforementioned paper) supports the idea of an alternative genealogy of posthumanism traced with and from German anthropology. In a keynote lecture given in London in 2023, he proposes to move beyond the classical (and dominant) Anglo-American history we are often told. To this end, he turns to German thought, which, from Kant onwards, has largely inspired European philosophy in the twentieth century. This aligns with Herbrechter's previous work on critical posthumanism, which has sought to question and challenge the 'official' narratives of posthumanism and keep the discourse open to self-critique. In *Posthumanism: A Critical Analysis* and *(Un)Learning to Be Human?* for example, Herbrechter traces the genealogy of posthumanism in poststructuralism and postmodernism, including the French antihumanists of the 1960s-1970s ('Foucault, Lacan,

[572] *Ibid*., p. 194.
[573] *Ibid*., p. 193, emphasis in original.
[574] *Ibid*., p. 195.
[575] *Ibid*., p. 194.
[576] *Ibid*., p. 195.

Kristeva, Barthes, Irigaray, Althusser, Derrida, Cixous, Deleuze and Guattari'[577]), who would inspire the development of the so-called 'French Theory' in Anglo-American universities. Beyond the French poststructuralists, Herbrechter highlights two other strands of theory that could be described as precursors of a 'European posthumanism-to-come': 'German critical theory' and 'Italian biopolitical thought'.[578]

It is the German branch that Herbrechter focuses on in the keynote lecture, and which I am mobilising here. While he does not suggest that Gehlen was a proto-posthumanist himself, Herbrechter shows that – perhaps through parasitic readings – German philosophical anthropology led to the later development of philosophies that might be associated with posthumanism. This statement is so far removed from the classical historiography of posthumanism, so unorthodox in its references and so original in its proposition, that I will take the freedom to quote it at length:

> The underdetermined, open, protean nature of the human species that neo-Kantian philosophical anthropology, from Scheler to Cassirer, Plessner and Gehlen, takes as its starting point to understand the human "*Mängelwesen*", or the human as "*nichtfestgestelltes Wesen*" (after Nietzsche), leads in the latter half of the 20th century to radically nihilistic and increasingly post-anthropological as well as postanthropocentric positions in, for example, Günther Anders […], or Ulrich Sonnemann […]. It maybe finds its darkest expression in Ulrich Horstmann […]. If thus the interest in anthropology and its crisis returns in the 20th and intensifies at the beginning of the 21st century, this, however, does not happen in a humanist sense, but in a new, purely "anthropolitical" one (cf. Steffens 1999). What does it mean to be human? thus becomes the central question of a posthumanism that is postanthropocentric but not entirely postanthropological. And this predominantly German or German-speaking variant of Kantian philosophical anthropology which, as the catastrophes of modernity keep accumulating, turns into its opposite, is largely absent from the official (Anglo-American) account of posthumanism. Which also makes it difficult to situate and to receive many of negative anthropology's important contemporary representatives.[579]

Whereas posthumanist thinkers have thoroughly mobilised the French and Italian traditions, the German tradition of negative anthropology remains profoundly unknown to the field. To counter this, Herbrechter envisions a new, European posthumanism that should learn to inherit philosophical traditions of European modernity that have, directly or indirectly, contributed to a critique of humanism.

---

[577] Herbrechter, *(Un)Learning to Be Human?*, p. 5.
[578] Herbrechter, 'Posthumanism's German Genealogies'.
[579] *Ibid*., n.p.

As I mentioned in the introduction to Part I, critical posthumanism attends to the tensions between positivity and negativity in Western societies but also, according to Herbrechter, in posthumanism itself. There is indeed a sense of division between affirmative (and sometimes vitalist) approaches and negative, critical, or deconstructionist ones. For the former, the posthuman condition is already here and can be (easily) defined. It calls for (or comes with) the development of posthuman subjectivities and posthuman beings, which can be invested ontologically, for example, through our entanglements with technologies. On the contrary, the latter perspective commits to the 'ongoing deconstruction of humanism'[580] and its corollary question of (post)human nature. It remains sceptical of metaphysical horizons mediated by technologies and focuses on the deconstruction and analysis of discursive productions of posthuman(ist) figures.

In this sense, a return to German philosophy can help us complicate the genealogy of posthumanism by evidencing both forms of *neo*humanism and *proto*-posthumanism. As Herbrechter notes in *Posthumanism*, 'the historicization of the human as an object of investigation is likely to exceed the framework of philosophical anthropology',[581] but one should not too quickly dispel the anthropological question. In this way, Herbrechter has called for a (philosophical) post-anthropology rooted in the German(-speaking) tradition of *negative* anthropology, on the one hand, and media philosophy, on the other.[582] With regard to the negative anthropological branch, Herbrechter finds Plessner's work better suited than Gehlen's to complete such an alternative genealogy of proto-posthumanism,[583] but it remains nonetheless interesting to see how the perspective of negativity (as incompleteness, for example), which Gehlen also embodies, constitutes the core of such a genealogical perspective.

Herbrechter's critical posthumanist approach – which is also genealogical – can help us attend to the complexities of Gehlen's heritage, which has been alternatively described as potentially proto-posthumanist and profoundly humanist. Indeed, given the many counterexamples mentioned above – Gehlen's reformulation of the Kantian anthropological question, his reversed human exceptionalism, his maintenance of the human/animal dualism, his view of human culture as a form of mastery over nature, but also its absence in French antihumanist philosophy, we have every reason to believe that the theory of the *Mängelwesen* should be understood as a humanist approach. As with other thinkers like Scheler and Plessner, philosophical anthropology's goal remains to establish the uniqueness of human nature. As I have shown, however, Gehlen's perspective is not humanistic in the traditional sense, for its

[580] Herbrechter, *Posthumanism*, p. 45.
[581] *Ibid*., p. 13.
[582] See Herbrechter, 'Posthumanism's German Genealogies'.
[583] Personal communication: this is Herbrechter's answer to a question I asked him following his keynote lecture.

relationship to the life sciences is intended (among other things) to overcome the traditional body/mind dualism which we famously inherit from the early-modern humanism of Descartes.

Another point of contention – if not potential divergence – can be found in the question of anthropocentrism as androcentrism. Indeed, some have argued that the human in the German-speaking world (‘*Der Mensch*’) escapes the androcentric assimilation of masculinity (Man) with humanity that has pervaded much of humanist thinking and practice to this day. In his introduction to the English version of *Man*, for example, Rehberg makes a curious mention of the first edition of the book in German, which he refers to as ‘*The Human Being*’.[584] Elsewhere in the foreword, Gehlen’s personal assistant uses the official title, ‘*Man*’. Whether or not this disharmony is intentional, it appears to suggest that the German ‘*der Mensch*’ is indeed, in Gehlen’s usage, a neutral term. But others, such as the English translators of Gehlen’s *Man*, sustain the contrary affirmation in a text that stands directly above Rehberg’s introduction in the book:

> The reader will note that we have generally translated the term *Mensch* as “man,” and employed the pronoun “he” for that term. The alternative was to translate *Mensch* invariably as “human being” and to use a construction such as “he or she,” “s/he.” However, it seems clear that Gehlen himself would have employed the term “man” and the masculine pronoun. To revise the book’s language to avoid sexist terminology would add a contemporary cast to the text that, in our opinion, would not be appropriate.[585]

Similarly, in the French edition of *Der Mensch*, Christian Sommer chooses to translate the book’s title with the traditionally masculine ‘*L’Homme*’ (Man) rather than ‘*L’Humain*’ (The Human). Whether this is a trace of androcentrism in Sommer – whereby ‘*l’Homme*’, with a capital H, just like ‘Man’ with a capital M, is brought to represent the entire species – or a failure to transpose Gehlen’s gender-neutral conception, remains unclear to me. Whatever the true answer may be and regardless of the potentially different motivations that animated the English and French translations, the fact that *Der Mensch* was respectively translated as *Man* and *L’Homme* signals the persistence today of an androcentric perspective in the contemporary genealogy of Gehlen’s thought, which is suggestive of a reconduction of humanist logics. In this way, we might follow a posthumanist thinker like Roberto Marchesini in speaking of a ‘neo-humanism’[586] to describe Gehlen’s work itself and/or its contemporary reception.

Formally trained in veterinary medicine and working as a philosopher in Italy – a country where, as I have mentioned, German philosophical anthropology has been highly influential –

---

[584] Rehberg, ‘Introduction’, p. *xv*.
[585] See Clare A. McMillan and Karl A. Pillemer, ‘Translators’ Preface’, in Arnold Gehlen, *Man: His Nature and Place in the World*, New York: Columbia University Press, 1988, p. *vii*.
[586] Marchesini, *Over the Human*, p. 34.

Marchesini could not have overlooked the impact of that tradition on contemporary conceptions of humanity and animality. His writings on posthumanism can help us further clarify the relationship between Gehlen's anthropology and the humanist tradition. In *Over the Human*, for example, Marchesini examines the Epimethean and Promethean conceptions of animality and humanity, respectively. He notes that, in the Epimethean conception, animality is turned into 'a de-subjectified condition, whereas Prometheanism casts the human outside 'the animal condition'.[587] Among the various iterations of this approach, Marchesini singularises 'Arnold Gehlen's philosophical anthropology[,] which claims to interpret the human cultural dimension as exonerative compared to a lacking biological condition.'[588] Providing a useful commentary on the *œuvre* of the German philosopher, Marchesini adds that '[i]n Gehlen's thought we find the humanistic lei[t]motifs [of …] man as created outside of a biological rank, that is, devoid of performative declination and therefore protean and autopoietic'.[589] This nuances the idea that German philosophical anthropology aligns with posthumanism's return to the sciences, especially given that Gehlen's use of biology remains strictly non-Darwinian.

Marchesini, however, is careful not to decontextualise Gehlen's work, instead re-inscribing it in the broader tradition of philosophical anthropology. 'This line of thought', Marchesini notes, 'is much in debt with the humanistic manifesto, to the point that it is sometimes defined as "neo-humanism"'.[590] What is this new wave of humanism, and how does it differ from traditional humanism? According to Marchesini,

> [i]f it is true that the need to mark the boundaries between man and animal can be found in the whole of philosophy, […] it is also undeniable that the philosophical anthropology proposed by Scheler, Plessner and Gehlen represents an important break, which should be considered as going hand in hand with philosophy on the one hand and descriptive sciences on the other.[591]

Instead of describing the human as naturally superior to the animal due to its inherent qualities, this neohumanism[592] draws on a blending of philosophy with the sciences (if not perhaps their philosophical re-interpretation) to emphasise a supposed fundamental deficiency of the human. In this way, Marchesini attributes the 'neo-humanist meaning of this project' to 'a need to: (a) synthesize the outcomes of the so called human sciences in the light of philosophical interpretation [… and] (b) overcome the trauma of Darwinism, guilty of finding a despicable continuity between man and other species.'[593] Following the 'narcissistic injury'

[587] *Ibid*., p. 14.
[588] *Ibid*., p. 14, n. 29.
[589] *Ibid*.
[590] *Ibid*., p. 34.
[591] *Ibid*., p. 37.
[592] For the sake of readability, I will henceforth spell this concept as 'neohumanism' without a hyphen.
[593] Marchesini, *Over the Human*, p. 37.

of Darwinism – to borrow Freud's famous phrase – humanist philosophy can no longer ignore the life sciences, but does so in potentially questionable ways.

Following this re-reading, it appears that the return to the sciences, far from evidencing a form of (proto-)posthumanism, can instead be understood as a way of reinforcing – or even salvaging – humanist principles. While philosophical anthropology at large has led to neohumanism, Marchesini attributes to Gehlen a particular role in this endeavour: 'For Gehlen', indeed, 'the human being lacks Epimethean predicates and is therefore characterised by adaptive shortcomings, ancestrality or primitivism, non-specialisation, so that it cannot live directly in nature.'[594]

The difference between such a neohumanism and a posthumanist approach is made clear in relation to the question of technology, where, once again, Gehlen is singularised: 'Arnold Gehlen is surely the thinker that brings the metapredicative conception to its most complete formulation.'[595] For Gehlen, the human's incompleteness makes technology necessary to distance oneself from an environment one is not adapted to. In this perspective, technology can be understood as a supplement (if not even a corrective) to human nature. Just like the glove that protects the hand against cold and contamination, technology is added on top of human biology, according to Gehlen. In other words, technology acts as a crutch or prosthesis:

> Through cultural action, for Gehlen, the human being compensates for its organic weakness, creating instruments that become extensions of its body, but he also builds a second nature or dimension that is no longer qualified only by performative analysis. Technology, which is central to Gehlen's thought, becomes the compensation for human deficiencies and non-adaptations, as an integrating part of man's nature.[596]

Such an idea is also found in some aspects of cyborg thinking today,[597] which suggests that the human body is unable to keep up with current technological advances. This portrays the human body in essentialist terms, as ontologically (and permanently) deficient and impaired, in need of a crutch. This aligns with the (dis)humanist idea that culture and technology contribute to the perfectibility of the human, to speak in Rousseauist terms, and contrasts with the stability of animal nature. In posthumanist cyborg thinking, however, the prosthetic nature of technology is not described along dualistic lines of nature/culture, animal/human, but rather as a reconfiguration of human nature itself. Similarly, while the human embodies the Cartesian master of nature through technology in the Gehlenian approach,

---

[594] *Ibid*.
[595] *Ibid*., p. 36.
[596] *Ibid*., p. 37.
[597] See Roberto Marchesini, *Technophysiology, or How Technology Modifies the Self*, Newcastle upon Tyne: Cambridge Scholars Publishing, 2023, p. 94.

it is reconfigured and somehow controlled by technology – which is already part of nature – in the posthumanist approach.

In this sense, Marchesini favours a dynamic and dialectical approach according to which the crutch or prosthesis reconfigures human embodiment instead of supplementing it. This is consistent with the descriptions of prosthetic embodiment in Margrit Shildrick's work on posthumanism and disability,[598] though many have also noted that using a universalising metaphor of disability to describe human techno-embodiment can prove depoliticising and reproduce ableist tropes. I will return to the discussion of disability later in the chapter.

Beyond the question of disability, Marchesini's philosophy of technology remains helpful here. For him, indeed, the deficiency Gehlen finds in the human is only an *a posteriori* perception, perhaps even a projection: 'It is much more likely to feel that the original deficiency proposed by Gehlen is actually a "perception of deficiency": that is, a sense of lack or need attributable to the habit of performance mediated by technology, which sets standards of optimality that are unattainable without a tool.'[599] By elaborating a properly posthumanist theory of technology, Marchesini helps us distinguish Gehlen's anthropology from a posthumanist perspective.

As we see, Marchesini overturns Gehlen's argument: whereas Gehlen attempts to position a biological description of deficient human nature as the departure point of a philosophy of human dependency on technology, Marchesini reveals that the notion of deficiency is a retrospective perception. In other words, Marchesini deconstructs Gehlen's teleology of human development through culture, technology, and institutions, by showing that these are the result of contingent processes of hybridisation. Such an idea ultimately challenges the very premises of Gehlen's philosophical anthropology:

> To overcome the autopoietic reading we need first of all to discard the idea of man's incompleteness, as we have seen that this lack is easily transformed into an acceleration of distance that lays the basis for ontogenetic autarchy. Overturning Gehlen's hypothesis and with respect to scientific evidence on Homo sapiens' heritage, we can presume that the cultural ellipses characterising man's expressive multitude have been created not by a natural deficit, but rather by a certain phylogenetic aptitude.[600]

Rather than a deficient being, the human might thus be described, with Marchesini, as a highly open being. Its 'ontogenetic virtuality'[601] is not the result of a lack or deficit in predicates

[598] Margrit Shildrick, *Visceral Prostheses: Somatechnics and Posthuman Embodiment*, London, New York, and Dublin, Bloomsbury Academic, 2022.
[599] Marchesini, *Over the Human*, p. 42.
[600] *Ibid*., p. 73.
[601] *Ibid*.

and abilities, but rather to a meta-predicative openness, namely, 'a strong propensity to relate to external referents, with the ensuing ability to introject nonhuman beings into the human identity dimension'.[602] In other words, it is not that the human *needs* technology to survive in nature, but that they *desire* connecting with the world in various ways and therefore develops technologies that reconfigure their embodiment.

Through Marchesini's critical reading of Gehlen and his posthumanist philosophy of technology, it is difficult not to understand the anthropology of the *Mängelwesen* as a resolutely (neo)humanist approach. However, the genealogical approach of a Sommer or Herbrechter leads to a less unilateral conclusion, particularly through the tentative proposal of reading Gehlen's anthropology parasitically as a potential proto-posthumanism. Rather than adjudicating between these different positions, I would much rather highlight their respective potentials and their joint usefulness in complicating the humanism/posthumanism binary. At once internally neohumanist and part of an alternative genealogy of posthumanism, Gehlen's anthropology remains available for a variety of readings and uses. Perhaps its higher merit is that it interrogates and complicates the widespread idea that the meaning of posthumanism has been established for good. In this way, the post/humanist ambivalences of this theory fuel the project of a *critical* posthumanism for which continually interrogating the official genealogies of posthumanism is instrumental to the ongoing working through and deconstruction of humanism itself.

II — Parasitic Readings of the Theory of the *Mängelwesen* from the Weak to the Autistic

In this section, I introduce discussions of disability and autism into Gehlen's philosophy to highlight the constitution of a form of dishumanity. I begin with a parasitic reading of the theory of the *Mängelwesen* alongside the ethological handicap principle. I show how, through a lexicon of 'handicap', Gehlen articulates a dishuman figure of human nature as deficient and disabled, which is met, in his thinking, by a compulsory able-bodiedness. A disanimal equivalent of this can be found in the handicap principle developed by Amotz Zahavi, where animals described as disabled turn out to be singularised, in the last analysis, by their exceptional features.

Then, by engaging with Gehlen's dishuman figurations, I highlight the proximities between the Gehlenian *Mängelwesen* and the autistic subject, who might both experience

[602] *Ibid.*

frequent sensory overstimulation. Based on this proximity, it appears the figure of the autistic might be reclaimed to support conservative agendas of authoritarianism. Moreover, in Gualandi's reading of Gehlen, the figure of autism is mobilised as a way to describe the outcome of societal disintegration within modernity, that is, the disorderly state to which humans are brought in this epoch. Through a parasitic reading, I attempt to rethink the (autistic) disorientation of the human subject during modernity no longer as a disorder worth curing, but as a way of deconstructing humanism itself.

1. Dishumanity and Disanimality in the Theory of the *Mängelwesen* and the Handicap Principle

In Gehlen's philosophical anthropology of the *Mängelwesen*, the human being is explicitly conceived through and defined by disability, but it is also, as I will show, defined along notions of disorder, disharmony, and dependency. What does it mean that an entire species – the human – is brought to uniquely (and wholly) embody the figure of disability? In this subsection, I suggest that such a mobilisation of disability relies on a principle of dishumanity, but only in a superficial fashion, for 'handicap' in this approach is closer to a narrative prosthesis than a fully thematised concept. I then turn to the ethological 'handicap principle', which also recruits the notion of disability to explain a startling evolutionary phenomenon. The handicap principle, as I will show, might constitute the disanimal counterpart to the dishuman perspective of the *Mängelwesen*. These theoretical approaches will offer me an adequate occasion to reflect on the ways disability should or should not be understood in human and nonhuman animals.

a) The *Mängelwesen* as a Dishuman Subject

In Gehlen's anthropology, thinking about the human is always thinking about disability, even when such ideas travel under different signs. Indeed, Gehlen does not use the concept of 'disability' but that of 'handicap', which was more popular at his time of writing. Throughout *Man*, the term handicap makes seven appearances,[603] most of which refer to the impairment human beings face due to their biological constitution and must overcome through institutions: 'The underlying thesis is that all the deficiencies in the human constitution, which under natural conditions would constitute grave *handicaps* to survival, become for man, through his own

[603] Gehlen, *Man*, pp. 28, 30, 32, 33, 34, 39, 55.

initiative and action, the very means of his survival; this is the foundation for man's character as an acting being and for his unique place in the world.'[604]

To speak in disability studies jargon, we might also suggest that Gehlen champions a form of compulsory able-bodiedness, with disability being a tragedy that must necessarily be overcome or *relieved*. About the acts of relief, Gehlen indeed says: 'They are productive acts of overcoming the deficiencies and obtaining relief'.[605] All components of a medical model approach are seen here, even though Gehlen's conclusions are less medical than institutional in the political sense: a framing of disability as deficiency, productivity as a trope of adequate performance and assimilation, and overcoming as the only acceptable horizon for disabilities.

As Christian Sommer has noted, Gehlen is not so much fascinated with relieving performances as finalities, but sees them as tools against the evil of deficiency: 'In his theory of institutions, Gehlen emphasises less the prodigious inventiveness of compensatory performances that arise from the vulnerability and precariousness of the human biological structure than the risks that this structure virtually entails, which he charges institutions with anticipating and neutralising.'[606] This emphasis on the (disabled) human condition rather than the (ableist) practices and institutions is probably what opens Gehlen's anthropology to uses beyond its conservative orientations, but is it not fundamentally rooted in ableist language and principles? As in Goldstein, Gehlen's focus on deficiency does not entail a feminist ethics of care, where the idea of vulnerability and precariousness would lead to interdependence and solidarity, but to an ableist framework. Admittedly, Gehlen's more 'progressive' readers have successfully reframed his notion of human deficiency as openness and plasticity, and it may perhaps be possible to reorientate Gehlen's anthropology to envision a more enticing ethics of interdependence. I suggest this, however, should not be done without prior, careful attention to the ethics and politics of disability and how they already play out in Gehlen's writings.

As will become clear in Part II of this thesis, the disability trope in Gehlen is directly instrumental to the establishment of human exceptionalism. The human deficiency, which Gehlen certainly deplores, is nonetheless a tool for human distinction from the animal realm: 'A defenseless being, overcome by stimulation and incapable of movement, transforms this double *handicap* into the basis for an existence totally foreign to the animal kingdom.'[607] As we see, for Gehlen, it is because the biological reality that is human life shows itself deficient that human existence is distanced from animality. This emphasis on existence as a uniquely human phenomenon is reinforced by Gehlen's mention of childhood, which is positioned closer to bare

[604] *Ibid*., p. 28, emphasis mine.
[605] *Ibid*.
[606] Sommer, 'Présentation', pp. 24–5.
[607] Gehlen, *Man*, p. 34, emphasis mine.

life – and therefore to the animal, to borrow Agamben's term – than to the relieved human: 'The immaturity of a child's motor skills is a *handicap*, when compared to the situation with animals.'[608] I will return to the discussion of childhood below, but it is already useful to note that Gehlen's anthropology reiterates common tropes of human exceptionality as artificiality and distancing from biology, nature, and animality, which the child comes to represent.

In this way, Gehlen's theory of the *Mängelwesen* can perhaps be described as the dishuman figure *par excellence*. At once fundamentally impaired or handicapped, the Gehlenian human is also singularised by its unique abilities to rise above and overcome its biological condition. But what kind of impairment is this, which seemingly affects an entire species? Which type of disability model is made necessary to account for such a phenomenon? I have good reasons to believe that the theory of the *Mängelwesen* mobilises the disability trope in harmful ways.

First, the universalisation of disability in Gehlen's perspective relies on a depoliticisation and an erasure of disabled experiences. Indeed, how may such a universalising approach ever account for the socially and historically situated experiences and political claims of disabled people? The idea that the human species as a whole is handicapped evokes the contemporary practice of instrumentalising a universalist concept of disability to oppose disability advocacy. When learning that someone they know is disabled, ableist people typically answer something along the lines of 'We all have something, right?'. Such a phrase suggests that everyone is disabled in their own way and that, therefore, the disability status just mentioned is invalid. This sentence effectively serves to deny the unique challenges, needs, and demands of disabled people.

As I have mentioned before, a variation of this phrase can be found in (mostly white) circles of disability advocacy, with the idea that 'We will all become disabled one day if we live long enough'. Seeking to resist the figure of disability as a marginal experience or tragedy that typically only happens to others, white disabled activists have popularised a universalising perspective where disability – sometimes reframed through feminist notions of vulnerability and precariousness – becomes the most widespread part of the human condition. Jaspir Puar has demonstrated that this approach is homogenising and depoliticising because it erases the (racist, colonial, patriarchal, capitalist, etc.) structures of power that contribute to an unequal distribution of disability. It also invisibilises the erasures and exclusions performed by the category 'disabled', which is not equally reclaimable along racial lines.[609]

Gehlen's notion that disability (or 'handicap') is the standard condition in humans functions along these lines. Such an idea indeed suggests that disability is not the result of a

[608] *Ibid*., p. 33, emphasis mine.
[609] See Jasbir Puar, *The Right to Maim*.

socio-political process of disablement – as the social model of disability argues – but a natural given among the whole species. Disability, for Gehlen, is nothing more than a biological impairment, and one that must be neutralised. Universalisation works hand in hand with naturalisation here. When Gehlen issues a prescription for higher structural organisation and institutionalisation (as a way to mitigate the effects of an alleged fundamental deficit in humans), he may not be partaking in medical discourse directly, yet he mobilises the very conceptual logic that has led to the moral and political justification of medical interventions on disabled people. In this sense, Gehlen's anthropology still seems to operate according to the medical model of disability.

With its universalisation and naturalisation of disability, this theory also performs an extractivist and decontextualising gesture. More specifically, I contend that the theory of the *Mängelwesen*, even though it does not mobilise the concept of disability itself, engages with the disability trope more or less along the lines of 'rhetorical prosthesis'. In disability studies, the notion of narrative prosthesis – which was coined by Mitchell and Snyder[610] – refers to discursive practices where disability is invoked only for its rhetorical effects on the overall narrative, often without any consideration for its anchoring in, and implications on, the lives of actually disabled people. It is clear that disabled people play no role in Gehlen's anthropology, nor does disability as such. Instead, the metaphor of 'handicap' comes to represent the overarching phenomenon that brings together notions of disorder, disharmony, disintegration, and dependence.

Once more, this rhetorical strategy relies on the human/animal divide. For Gehlen (as for Uexküll), the lives of nonhuman animals are fundamentally orderly and harmonious: 'an animal exists in the here and now and hence does not encounter the problems man faces. An *order* and *harmony* […] of which it is not aware and which it cannot influence in any way ensures that the means for its survival are accessible to the animal.'[611] On the contrary, the human cannot satisfy its needs in '"instinctive" fashion', but only in '*orderly*' fashion,[612] which means that order can only be reached through action, thus becoming a second nature. In the final analysis, the disorderliness of human nature makes '*ordering* [one's] impulses' a necessity.[613] For Gehlen, it is not enough to reach this new order, but also to avoid its reversal into disorder: 'the habit of cultivating and incorporating habits—that is, of forming attitudes—is physical and is necessary: if it does not occur, the nervous system will become *disordered*.'[614]

[610] See David T. Mitchell and Sharon L. Snyder, *Narrative Prosthesis: Disability and the Dependencies of Discourse*, Ann Arbor: The University of Michigan Press, 2000.
[611] Gehlen, *Man*, p. 43, emphasis mine.
[612] *Ibid*., p. 325, emphasis mine.
[613] *Ibid*., p. 356, emphasis mine.
[614] *Ibid*., p. 370, emphasis mine.

The idea of a Gehlenian call to order is confirmed by Sommer's analysis, which does not see there only a descriptive account of human nature, but also a normative horizon linked to Gehlen's conservatism:

> Under the anti-Rousseauist slogan of a "return to culture", Gehlen tends to overvalue the function of institutions responsible for bringing order to "chaos", that is, what he conceives and fears as the frightening 'head of Medusa' that is the state of nature where "man is a wolf to man". Indeed, this hyperbolic Gehlenian gesture, which overemphasises the need to order and shape human plasticity, supposedly virtually open to "chaotization", "renaturalisation" and the instinctual decay threatening the stability of institutions, can then easily slip into a neo-Hobbesian "absolutism" of institutions ensured by an authoritarian state'.[615]

As such, it is tempting to read Gehlen's critique of neurological disorder in the citation above not so much as a neutral comment on biology but as a political statement and a commitment to the pathology paradigm. The same goes for dis/harmony, which separates the human from the animal[616] and creates a disabled condition for the former: '"disharmony" exists deep within man's constitution, in direct contrast to the equilibrium in animals. This disharmony does have a positive side, however—the "pressure for development" *(Entwicklungsdruck)* which it gives rise to.'[617] Once more, we are faced with a naturalisation of able-bodiedness and able-mindedness, that is, an effort towards the overcoming of disability.

Gehlen uses the term 'disharmony' as a synonym for 'handicap'. The concept helps him describe the kind of situation that arises when the *Mängelwesen* only uses its imperfect instincts to act, instead of developing habitual attitudes. In this sense, he explains that '[t]he reduction of instincts and the absence of firmly fixed, species-specific releasers create a chronic pressure. […] Such an instinctual rhythm would prove to be a serious *disharmony* in a being whose survival depends on constant action.'[618] The disharmony does not arise from 'species-specific' traits in the human – which, as we have seen, are lacking – but one should not see in this a disavowal of speciesist perspectives. On the contrary, this deficiency in species-specific traits, this 'handicap' *is* proper to the human species. The idea of species specificity – which sometimes functions as an operator of normativity, as I will show in Part II – is reversed and turned upside down by Gehlen, but by no means cancelled out.

---

[615] Sommer, 'Présentation', p. 25.
[616] See Gehlen, *Man*, p. 317: 'The disharmony in the human constitution, the unique burdens man bears—his excessive impulses and drives, his need to control himself, the necessity of work, the need to anticipate the future, and the constant awareness of mortality—all these risks and complications are not part of the secure, effortless vitality of the animal.'
[617] *Ibid*., p. 313.
[618] *Ibid*., p. 352, emphasis mine.

Another figure of disability in *Man* is found in the notion of 'disintegration', which Gehlen mobilises to describe the modern society he lives in, namely, 'a society that is highly complex and rapidly changing'.[619] This reference to the shift from traditional societies to modern societies is particularly relevant for my discussion of dishuman modernity, because, as we see, there seems to be for Gehlen a relationship of cooccurrence, if not even causality, between the advent of modernity and the increasing disordering and disintegrating of the traditional social order: 'A "disintegrated" society such as ours […] breaks down the traditional forms of discipline that lend a primarily social content to the relationship of the individual to himself'.[620]

My reading of disability – and soon, autism – in Gehlen's interventions is justified by the critical words he reserves for more explicit forms of vulnerability and lack of autonomy, such as dependence. As I have briefly mentioned before, Gehlen takes issue with the dependent status of human children. He does so in a manner that appears both adultist and ableist, particularly when he laments the 'abnormally long period of dependence'[621] of human infants in comparison to animals. Gehlen treats human interdependence as a form of deficiency, rooted in neoteny, namely, the preservation of childhood signs in adulthood and the delay of development.[622] Gehlen seems to associate human neoteny with a form of primitivism which should be mitigated through discipline and social development.

Again, Gehlen's argument here relies on the human/animal dualism, even though neoteny has also been found in other animal species, both domesticated and wild. In this way, the idea that disability is proper to the human species seems to deconstruct itself, and we will see that the disability trope has also been mobilised to describe animal life. In this regard, it may be useful to turn to the famous example of a scientific theory of disability in nonhuman animals: the handicap principle in ethology and conservation biology. In Gehlen's anthropology, the human being is deficient, whereas the animal is not; in the handicap principle, which I will now examine, nonhuman animals, too, can be described as disabled or deficient.

b) **The Handicap Principle as a Form of Disanimality**

Gehlen's theory of the *Mängelwesen* can be productively brought together with the handicap principle, the latter of which substitutes dishumanity with disanimality. In this approach,

[619] *Ibid*., p. 374.
[620] *Ibid*.
[621] *Ibid*., p. 29.
[622] On Gehlen and neoteny, see for example, Marc Levivier, 'L'hypothèse d'un Homme néoténique comme "grand récit" sous-jacent', *Les Sciences de l'éducation - Pour l'Ère nouvelle*, vol. 44, no. 3 (2011), pp. 77–93.

originally developed by Israeli ethologist Amotz Zahavi,[623] it is argued that exceptionally alluring adornments in animal bodies or behaviours, such as the peacock's beautiful finery, constitute disabilities because they make their bearers uniquely vulnerable to predation. While beauty and adornments are sometimes understood as selective advantages in sexual selection, it is also not uncommon to hear that aesthetic forms play only a secondary role in evolutionary patterns.

How can an apparent existential threat such as the colourful patterns of the peacock's plumage be understood at the evolutionary scale, where survival of the fittest is thought to prevail? Such a disabling feature, it is suggested, could only be viable in individuals who are equally unique in their ability to survive adversity. In this way, the animal's fundamental disability – brought about by its secondary sexual characteristics – appears to be the byproduct of exceptional strengths and endowments, something that potential mating partners – usually females – are assumed to understand implicitly. Disability, according to this principle, functions as a reliable signal of good genes, and there is supposedly a strong correlation between extravagant phenotypes and 'strong' genotypes. As Josef H. Reichholf aptly puts it, for Zahavi, 'beauty is a handicap'.[624]

The handicap principle was later applied to the question of parasitism through the parasite-stress theory, which draws on the observation that, because parasites and pathogens impose high selective pressure, only the most immunocompetent individuals survive. To afford exuberant secondary sexual traits, the theory postulates that one must possess enough resources or energy to simultaneously combat potential infections and produce and maintain these costly adornments and behaviours. Specifically, it has been argued that testosterone is responsible for male secondary sexual traits *while* suppressing immunocompetence. In this way, displaying strong and exuberant characteristics would be a signal of strong immunity.[625]

What does it mean that a common feature of animal life – namely, the existence of seemingly gratuitous aesthetic forms – is likened to disability? What is the relationship between disability and parasitism here? Once again, there are no real disabled animals in this approach

---

[623] See Amotz Zahavi, 'Mate Selection – A Selection for a Handicap', *Journal of Theoretical Biology*, vol. 53 (1975), pp. 205–14.

[624] Josef H. Reichholf, 'L'expression de la beauté versus l'adaptation darwinienne', in *Phénoménologie de la vie animale*, ed. Florence Burgat and Cristian, Bucharest: Zeta Books, 2016, p. 50. I translated this and all later citations of this reference from French.

[625] See, for example, Noah T. Owen-Ashley, Dennis Hasselquist, John C. Wingfield, 'Androgens and the Immunocompetence Handicap Hypothesis: Unraveling Direct and Indirect Pathways of Immunosuppression in Song Sparrows', *The American Naturalist*, vol. 164, no. 4 (2004), pp. 490–505; Ivar Folstad and Andrew John Karter, 'Parasites, Bright Males, and the Immunocompetence Handicap', *The American Naturalist*, vol. 139, no. 3 (1992), pp. 603–22. Such a correlation between androgens and immunosuppression, however, has also been nuanced, for example in M.L. Roberts, K.L. Buchanan, and M.R. Evans, 'Testing the Immunocompetence Handicap Hypothesis: A Review of the Evidence', *Animal Behaviour*, vol. 68, no. 2 (2004), pp. 227–39. In this sense, I am only referring to this theory in order to offer an analysis of the co-construction of disability and parasitism.

and ‘handicap’ is mobilised only as a metaphor or trope. This observation can help us better understand the kind of dishumanity and disanimality produced in the encounter between disability (or rather, ‘handicap’) and conceptions of human nature and animality.

In *The Dance of the Arabian Babbler: Birth of an Ethological Theory*, Vinciane Despret offers a thorough examination of how the handicap principle was developed.[626] Drawing on extensive fieldwork with Zavahi and his colleagues, Despret shares precious insights about the production of scientific facts. Rather than supporting the handicap principle or offering a critical commentary on it, Despret analyses the conditions of production of the principle. According to her, scientific theories that involve living subjects tell us as much about these beings as they do about the humans who study them and their own representations. Clearly, whether in Gehlen or Zahavi, the mobilisation of ‘handicap’ testifies to a widespread form of ableism and particularly to the availability of the category to prosthetic and parasitic uses.

In the handicap principle, and particularly its parasitic version, everything seems to function as if disabled life could not afford parasitism. Who is this handicapped animal who escapes the traditional coordinates of disability as parasitism? Neither parasitic nor parasited, the handicapped animal is not actually disabled by the parasite; on the contrary, it is they who resist it best. Such an animal is disabled precisely because it is not. At once disabled and able-bodied, the handicapped animal reflects an immunitary conception: disability seems to automatically deconstruct, or rather, overcome itself. The handicapped subject can be recognised as such only insofar as it is, really, the bearer of exceptional abilities.

Admittedly, both Zavahi’s handicap principle and its subsequent parasitic variation are biological theories, not (bio)political ones. In this way, they do not issue prescriptions about how to treat disabled humans or animals, for example. Still, the handicap trope they mobilise bears potentially harmful political consequences, with the idea of a cost of excellence that is borne through disability. The disabled animal is made into a productive subject. Could it be that, just like the deficient human in Gehlen’s philosophical anthropology, the handicapped animal can survive life in the wild only insofar as it is, more fundamentally, a supercrip? In critical disability studies, the rhetoric of the supercrip refers to examples of disabled people who supposedly *inspire* the public through their exceptional accomplishments and successes, proving that one can indeed ‘overcome’ one’s disability.[627] The supercrip is thus a superhuman – or, in Zahavi’s case, a superanimal – who plays into narratives of neoliberal performance and dehumanising logics. Neither subhuman nor typically human, the supercrip is applauded only

[626] See Vinciane Despret, *The Dance of the Arabian Babbler: Birth of an Ethological Theory*, London and New York: University of Minnesota Press, 2021.
[627] The term was introduced by Eli Clare. See Eli Clare, *Exile and Pride: Disability, Queerness, and Liberation*, Durham: Duke University Press, 2015, p. 22.

because it rises above the disabled masses and ultimately negates the reality of their own disability.

While the qualities attributed to them differ radically – one's disability is fundamental, the other's is a result or signal of higher ability – the handicapped human in Gehlen and the handicapped peacock are brought together by their unusually high potential. In both cases, disability is negated and turned into ability: disability, it seems, is only acceptable when it is the source or trace of a higher ability. Such a perspective seems particularly revealing of how the tension of dis/ability is addressed in the modern era. Through dishumanity and disanimality, notions of disability are tied to implicit conceptions of humanity and animality that reproduce harmful forms of ableism and sometimes speciesism.

To counter this, it may be useful to turn to alternative conceptions. A few ethologists and biologists, going against the tide of their disciplines, have, for example, nuanced the idea that exuberant aesthetic forms and secondary sexual characteristics in animals serve a functional purpose. One of them, Adolf Portmann, has argued for the notion of a gratuity of animal forms. In *Animal Forms and Patterns*, which was often cited by scientists who gravitated towards anti-Darwinian perspectives in twentieth-century German biological research, like Uexküll and Goldstein, Portmann defends the idea of a drive to self-presentation [*Selbstdarstellung*] in animals.[628] This means that animal life is characterised by a biological drive to self-expression, which can be explained by the value of appearance. According to Portmann, the animals' desire to present themselves to the world is a sign of their subjective constitution.

Commenting on Zahavi's handicap principle and Portmann's theory of animal forms, Benjamin Berger is willing to admit that beautiful forms can attract females during mating selection, but he is less convinced by the idea that such exuberant forms are signals of 'good genes'.[629] Indeed, drawing on the work of Thierry Lodé, he disputes the idea that the animal's handicap is correlated with the genotype. If this were true, mate selection by females should progressively eliminate the bad genes and mechanically reduce the phenotypical diversity among peacocks.[630] Instead, Berger adopts Lodé's 'theory of propaganda', according to which '[i]nstead of saying that disability is effective because it is a sign of good genes, one could say that it appeals solely because of its ostentatious, even spectacular nature.'[631]

Similarly, Josef Reichholf has offered a critical commentary on the handicap principle. While he recognises that exuberant forms and behaviours may sometimes produce a form of

[628] See Adolf Portmann, *Animal Forms and Patterns: A Study of the Appearance of Animals*, New York: Schocken Books, 1967.
[629] See Benjamin Berger, 'La vie comme manifestation chez Raymond Ruyer et Adolf Portmann', in *Phénoménologie de la vie animale*, ed. Florence Burgat and Cristian Ciocan, pp. 21–46, Bucharest: Zeta Books, 2016.
[630] See Thierry Lodé, *La Guerre des sexes chez les animaux*, Paris: Odile Jacob, 2006, p. 125.
[631] Berger, 'La vie comme manifestation'., p. 25, my translation.

disability, he proposes to nuance the idea. If the peacock's plumage is really a disability, we should find that male peacocks are more frequently targeted by predators than the females, who are 'better (and more subtly) camouflaged'.[632] This might not actually be the case, and Reichholf notes that female peacocks are more vulnerable than males due to the necessity of brooding.[633] He adds that, in some cases, the plumage can also act as a protection: if his plumage is torn by a predator, the peacock can survive without much threat to his survival. The plumage can also serve as a dissuasion tool by scaring off potential predators.[634]

The biodiversity of animal forms – just like neurodiversity – may perhaps be a source of disability, but it appears to have intrinsic value beyond the preservation of species. I would argue that it is not because it *signals* exceptional abilities, genes, or viability that this diversity should be preserved and celebrated, but because it *expresses* unique forms of life and being-in-the-world. Whereas my reading of the handicap principle does not relate to autism, I hope it might nonetheless have been instructive for my study of disanimality and dishumanity in Gehlen and beyond.

2. The Autistic *Mängelwesen*: Relief as a Dis/orderly Response to Sensory Overstimulation

Beyond his references to handicap, Gehlen's theory is largely evocative of neurodiversity, and specifically autism. First, as I just noted, the dishuman (or disanimal) figuration of handicap as a universal feature of human (or animal) life seems to dispense with any concept of intraspecies biodiversity. Indeed, by referring to species-specific predicates (or lack thereof), Gehlen's anthropology misses the diversity of human lives. This is how he comes to generalise handicap – and, as I will show, an autistic-like existence – to the entire species, thus missing the unique realities of disabled and autistic people.

In *Man*, Gehlen describes the *Mängelwesen* not only as deficient, but also as extremely sensitive to stimulation. He mentions the 'flood of stimulation' (or alternatively, the 'flood of impression') that affects it.[635] Because it is not equipped to live in a specific environment but rather unfinished and unspecialised, the Gehlenian human faces 'overstimulation'.[636] Such overstimulation, particularly on the sensory level, would be due to the human's incompleteness and should be corrected through action. Relief is once again Gehlen's prescription here: through

[632] Reichholf, 'L'expression de la beauté', p. 51.
[633] *Ibid.*, p. 52.
[634] *Ibid.*
[635] Gehlen, *Man*, p. 33.
[636] *Ibid.*, p. 354.

the mediation of action (for example, through autistic self-stimulation, also known as stimming), institutions, and routines, the overstimulated human might escape the distress and pain caused by their sensory condition.

In this context, we might describe relief as a dis/orderly response: at once an impulse to put things in order, the Gehlenian relief also bears the trace of a more fundamental disorder. A figure like autism can likely be read into the human disorder that Gehlen theorises. Indeed, hypersensitivity to (sensory, among other forms of) stimulation is arguably a core trait of autism. In this way, the figure of autism might come to mind when encountering Gehlen's theory of an alleged ontological weakness of humans in the Promethean condition. This interpretation seems particularly sensible in the modern era, which Gehlen described, as we saw, as a time of disintegration. Not only would the figure of the autistic be a representative of the human *Mängelwesen* in general, but it may also appear particularly suited to describe the *Mängelwesen* in late modernity, which is increasingly characterised by the intensity of stimulation flows and attentional demands.

This is reminiscent of the Intense World Theory of autism (Chapter 1), which posited that autistic people are unable to cope with a too intense world and must therefore withdraw in bubbles of monadic solitude. The practical conclusions and applications developed by the Markrams to prevent the 'intense world reaction' are also similar to Gehlen's own proposals to handle this human disorder: 'through "habituation," the delicate organism learns to tolerate its own vulnerability to stimulation'.[637] Once more, human action (or culture) appears as the solution to the unspecialised sensorium of the human (namely, its nature). In this perspective, the hiatus between order and its absence in the phrase dis/order is homological to the hiatus between the sensory and the motor, perception and action, or nature and culture. But only action, for Gehlen, can save the human from its fundamental deficiency, which originates in its sensorial constitution.

However, in the postmodern (or, following Herbrechter's genealogy, the posthumanist) era, Gehlen might not have been so eager to suggest that *human* action itself was sufficient. By calling on institutions and technologies to regulate and mitigate the initial deficiency of the human, some believe that Gehlen broke with the humanist logic and foregrounded the inhuman (e.g. institutions and technologies). For example, this is the conclusion that Alberto Gualandi draws from his study of the late Gehlen. Reading Gehlen together with and against the humanist Jacques Poulain, Gualandi argues that both philosophical anthropologists have a similar diagnosis of the 'postmodern context'.[638] For both of them, this is a time when human neoteny

[637] *Ibid*., p. 121.
[638] Gualandi, 'Inhumanités', p. 191.

has become '"naked" evidence',[639] but '[w]hile for Poulain this [opens a field of] direct experimentation [which] can find a positive solution in the more typically philosophical exercise of reflection provided to us by tradition: the exercise of judgement, for Gehlen this experimentation by man on himself can only lead to a catastrophic outcome.'[640]

As I have mentioned already, the late Gehlen expressed anti-intellectualist views. These views tie with Gualandi's thesis of an antihumanist turn in Gehlen's philosophy in the 1950s, where philosophy, a human construction, is no longer sufficient to salvage human life from its Promethean condition: 'Stripped of all symbolic and institutional mediation from the past, it [the human's experimentation on itself] will inevitably end up rejecting human beings into the sensorimotor hiatus and the madness that has inhabited them since their origins. It will end up rejecting them into a kind of epochal autism.'[641]

It is revealing that Gualandi would describe human deficiency in Gehlen's anthropology through the idea of an 'epochal autism' (and, on other occasions, of 'psychotic or manic-depressive syndromes'[642]). Indeed, it is not so much human nature that the figure of autism comes to name in Gehlen's philosophy, but the *epochal* context of (late) modernity and its heightened 'disintegration' of the humanist social order. We have already seen that Gehlen did not believe in using partial (that is, incomplete, deficient) instincts to cope with the natural world, for that would only bring about more disharmony. It is telling that such disharmony comes wrapped in an autistic cover in Gualandi's reading.

As with the autism metaphor in Uexküll's and Goldstein's readings, Gualandi's use of autism testifies to an ableist representation of autism. But more interesting than lamenting yet another stereotypical use of the word 'autism' is examining how the figure of the autistic has come to embody the tensions of Western modernity. In Gehlen, it appears clearly that the overstimulated *Mängelwesen* resembles the overstimulated autistic subject, but the comparison does not stop so soon. Indeed, the figure of the autistic embodies the tension between order and disorder, efficiency and deficiency, harmony and disharmony. In this sense, the autistic is no longer a disanimal figure as in Uexküll, but a representative of dishuman plasticity. At once deficient and excessive, disordered and orderly, disabled and a supercrip, the autistic is a *pharmakon*: it embodies the disease and its remedy.

Indeed, as a Promethean figure, the autistic *Mängelwesen* is a forethinker. It is well-known that many autistic people favour routines and predictability. The autistic subject is seen as a planner, a being who likes structure and order, if not discipline. In the context of our

[639] *Ibid*., p. 190
[640] *Ibid*., p. 191.
[641] *Ibid*.
[642] *Ibid*., p. 192.

dishuman modernity, figures like the autistic are recruited by thinkers such as Gehlen to embody their calls to a conservative social order marked by capitalism, racism, sexism, ableism, adultism, and speciesism. But in the political economy of neurodiversity, this also has important repercussions. It is not accidental that low support needs autistic people have become assimilated into the neurotypical-capitalist social order more than their higher support needs counterparts. Other neurodivergent subjects, like the ADHD afterthinker – a modern Epimetheus? – remains less appropriate(d). The opposition between the autistic and the ADHDer traffics in tropes of Promethean and Epimethean dualisms – culture/nature, mediation/immediacy, order/disorder – even though the two neurodivergences are famously overlapping.[643] Of course, these differential figurations are far from universal and might only apply to certain fringes of autistic and ADHD communities; in many instances, nonverbal and high support needs autistic people remain most profoundly pathologised and marginalised.

In this way, in Gehlen's philosophy, the figure of the autistic functions as an orientation device that should help the human species deal with the disorientation caused by its deficient nature, particularly in the modern world: 'Such a being would have to rely on its own initiative, finding itself confronted with a flood of stimulation amidst which it must try to orient itself. This process of self-orientation thus entails a reduction of the incoming impressions to certain productive centers, thereby providing relief from the pressure of the direct flood of impressions.'[644]

To orientate oneself may bring about needed forms of relief from the undetermined and unfinished nature of the human. More than a neutral description, this notion carries normative implications when read through the lens of autism. Indeed, when Gualandi mobilises the figure of autism to describe the 'catastrophic outcome' of modernity (as well as its potential solution), we understand how neurodivergence can be simultaneously cast in biopolitical ideas of immunity and contamination and parasitically recruited into assimilationist logics that run counter to the neurodiversity paradigm. At once natural and cultural, autism is framed positively only when it proves useful to hegemonic agendas. In Gehlen, the biological naturality of autistic hypersensitivity is lamented by Gualandi, who describes it as a form of tragedy. But we also see how the intentionality of autistic behaviours can be mobilised to separate the Promethean human from the Epimethean, instinctual animal.

[643] The co-occurrence of autism and ADHD may be up to 70%, according to recent studies. See, for example, Sabrina Martinez, Kalin Stoyanov, and Luis Carcache, 'Unraveling the Spectrum: Overlap, Distinctions, and Nuances of ADHD and ASD in Children', *Frontiers in Psychiatry*, vol. 54 (2024).
[644] Gehlen, *Man*, p. 33.

Much attention has previously been devoted to the gendered, racialised, and dis/ableist politics of dis/orientation. Sara Ahmed, for example, has famously argued for disorientation as a queer and antiracist practice that breaks from the hegemonic perspectives of straight lineages and Western orientalism.[645] Ahmed's insights have then been applied to disability as a way to promote a practice of 'disorienting disability', namely, a rejection of the normalisation and assimilation of disability, for example, into 'neoliberal logics and politics of recognition'.[646]

When it comes to autism, most autistic people can testify that the experience of being (existentially, geographically, cognitively, sensorially, or otherwise) disorientated in an intense world is unpleasant and sometimes anguishing. It leads to unique forms of unease and, at times, disease. For this reason, the experience of being (re)orientated brings unique forms of 'relief' to autistic people, to borrow Gehlenian terminology, and could therefore be fought for by disability and neurodiversity activism as a fundamental right. To create the material conditions for harmonious orientation in the world is certainly one of the goals of the neurodiversity movement. And yet as I have shown, the autistic need for order and orientation is easily recruited into hegemonic logics of power that end up harming autistic people and which rely on humanist-speciesist conceptions of the human and the animal, often cast in dualist oppositions. It is especially paradoxical, to say the least, that figures of autism would come to qualify theories developed by thinkers like Uexküll and Gehlen, who participated in hopes of Nazi futures that led to the killing of many autistic children.

How can we avoid that autism becomes yet another orientation device in the service of the norm, while guaranteeing the possibility of existential orientation for autistic people? While I have no definite answer to this, it is likely that the answer lies somewhere in the middle: we might need to 'stay with the trouble' of dis/orientation. Throughout this chapter and Part I of this thesis more broadly, I have mobilised the perspective of autism as a dis/ability to reopen a space of tension between positivity (ability, harmony, order, orientation, ease, connection, integration) and negativity (disability, disharmony, disorder, disorientation, disease, disconnection, disintegration). These two poles, as I hope to have demonstrated, are not only charged with descriptive value or normative biological value, but also with political implications. By slashing the figures of autistic disability, I have sought to deconstruct the humanist idea that positivity is always a source of emancipation. While the qualities that make

[645] See Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others*, Durham and London: Duke University Press, 2006.
[646] Michele Friedner and Karen Weingarten, 'Introduction: Disorienting Disability', *The South Atlantic Quarterly*, vol. 118, no. 3 (2019), p. 486.

up the positive pole of the dualism can be productively reclaimed by autistic people, this is often at the expense of those who (or that which) make up and occupy the negative pole, beginning with disability itself.

The perspective of dishumanity has proven particularly instructive in this regard. Whereas it would be tempting to describe the figure of the disabled as fundamentally antithetical to that of the human within modern humanism, we have seen how authors such as Goldstein and Gehlen were able to recruit and reverse the negativity of the disabled to serve the positive agenda of compulsory ability, human exceptionalism, capitalism, racism, sexism, and adultism. This has allowed me to signal the fundamental plasticity of Western modernity, which constantly reconfigures itself to assimilate its constitutive others, such as the autistic and the animal. Such a deconstructive gesture has not only allowed me to reveal the unspoken or conveniently forgotten political orientations of Uexküll, Goldstein, and Gehlen, but also to envision new ways of articulating autism and animality that can help us resist neuronormativity and speciesism.

The tension between humanism and posthumanism has undergone a similar fate throughout these chapters: ideas that appeared to be resolutely humanist or neohumanist appeared to travel within alternative genealogies of post/humanism (along with (proto-)posthumanism, nonhumanism, transhumanism, and antihumanism) through the various parasitic readings of Uexküll, Goldstein, and Gehlen. These various names and perspectives, I suggest, point to different ways of navigating the tensions between the dualities of modernity, which are always necessarily entangled. In the next part of this thesis, I explore the possibility that, beyond deconstructing and complicating dualisms, reclaiming figures and positions of negativity (disability, neurodivergence, animality, and their intersection) can serve affirmative political functions by providing alternative ways of approaching the troubles of disanimality.

PART II – TOWARDS A MORE-THAN-HUMAN AND MORE-THAN-NEUROLOGICAL TURN IN NEURODIVERSITY STUDIES

INTRODUCTION: ANIMALITY AS A CONSTITUTIVE OTHER OF NEURODIVERSITY

Genealogies of Animality in Neurodiversity Studies

In what forms and under what signs is animality mobilised (or invisibilised) in relation to autism today? Whereas Part I examined dishuman and disanimal figurations of (autistic) disability in twentieth-century post/humanist philosophies, Part II engages with contemporary scholarship where autism and neurodiversity are explicitly centred. In this regard, while the entanglement of disability and animality has already been thoroughly mapped out and examined in (critical) disability studies, and while this literature is introduced and discussed in Chapter 4, it does not constitute the main epistemological framework in Part II, nor does disability constitute the main analytic mobilised here.

To develop arguments focused on autism specifically, the next three chapters draw on (critical) neurodiversity studies primarily, and critical autism studies more marginally. The field of critical autism studies, which developed in the 2010s, made significant headway in clarifying the social, cultural, scientific, and political construction of autism in Western societies. It is mobilised in this part of the thesis within situated case studies focused on the role of neurological discourse in autistic and neurodivergent communities (Chapter 5) and the medicalisation of autism through animal models (Chapter 6). Important scholarship in this field has begun examining the intersection of autism and animality. However, these contributions have remained marginal and have not led to the consolidation of a research field or theoretical approach, at least not in the way that crip and disabled perspectives in critical animal studies have been popularised in recent years. Moreover, this intersection has been seemingly overdetermined by the controversial figure of Temple Grandin, an autistic livestock engineer who has come to occupy a position of quasi-monopolistic representation on this topic. It was naturally impossible to write a doctoral thesis on autism and animality without discussing Grandin's work, but I have sought to reframe this discussion around the ethics of human-animal relations in autism, particularly through a paired reading of Dawn Prince-Hughes (Chapter 4).

More centrally, Part II attempts to offer novel contributions to the academic study of this intersection by emphasising the urgency of perspectives rooted in critical neurodiversity studies. Indeed, this field of study is yet to develop explicit engagements with matters of animality. Why is it that, contrary to disability studies and critical autism studies, neurodiversity studies has not known any sustained effort to interrogate and resist speciesism? Is this solely due to the relative newness of the field, or is there a more profound reason involved? Why is it that contemporary efforts to articulate autism and animality, for example in Latin-American critical animal studies (see Chapter 4), have been primarily rooted in disability studies frameworks? By calling for a more-than-human turn in neurodiversity studies throughout Part II, my intent is not only to invite more sustained attention to matters of animality within this field of studies, but also to propose more reflexive and explicit considerations of the conceptual and political consequences of the field's existing relations to the more-than-human. In other words, not only is the idea of a more-than-human turn a projection into the future, but it also functions as a retrospective gesture. In this regard, a core argument in Part II is that existing conceptualisations (or lack thereof) of the more-than-human in neurodiversity studies have led to the positioning of animality as a constitutive other of neurodiversity.

How has neurodiversity been mobilised to support or oppose current political efforts to resist anti-animal speciesism, and how have different (sometimes implicit) frameworks of more-than-human thinking been instrumental to these theoretico-political stances? What kinds of effects follow from approaching these debates through the environmental humanities, through critical animal studies or animality studies, through (transfeminist and queer) posthumanism, or through the very figure of the 'more-than-human'? Not only do these various frameworks impact our conceptualisations of the more-than-human, but they also stem from, and perhaps transform, our understanding of autism and neurodivergence.

To reflect these logics, Part II examines the relationship between (both early and contemporary) conceptualisations of neurodiversity and the life sciences. Given that the neurodiversity movement has historically relied on an analogy to biodiversity (Chapter 4) and a profound engagement with neurological discourse (Chapter 5), it appears that the life sciences constitute a highly instructive site for interrogating the role that animality has (or rather, has not) played in the development of neurodiversity studies. Such a reflexive and genealogical endeavour seems all the more urgent as biodiversity and neurology have seemingly become ubiquitous yet unquestioned motifs in neurodivergent communities, if not even providers of supposedly innocent and foundational truths.

In order to trace the genealogy of animality's role in neurodiversity studies and the neurodiversity movement, the three chapters that constitute Part II pose critical questions regarding the onto-epistemology and ethico-politics of neurodiversity: How did neurodiversity

come to be established as a form of biodiversity without non-human animals (Chapter 4)? How can neurology simultaneously function as the (alleged) ontological and material substrate of animality and as a discursive and political apparatus that rejects nonhuman animals and autistic humans outside the scope of typical humanity (Chapter 5)? How have both kinds of discourse been mobilised to ground and justify uniquely neurodivergent forms of anti-animal speciesism, or what I will call neurodivergent speciesism?

These observations will prompt me to propose what we may call a more-than-human and more-than-neurological turn in neurodiversity studies. How can a different outlook on animality and neurodivergence, grounded in alternative onto-epistemological frameworks, foster more equitable coalitions between neurodivergent communities and nonhuman animals, and uniquely neurodivergent approaches to antispeciesism, such as neurodivergent veganism (Chapter 4)? The approach to animality developed in Part II is specifically grounded in philosophical ethology, a holistic, expansive, and phenomenological method to account for the ontology of animality. This suggests an alternative genealogy for neurodiversity, rooted in ethology: How have speciesist and neuronormative logics been mobilised in ethology, and how can the latter be reconfigured to enable joint animal and autistic liberation? How can an ethological framework help us break out of the impasses of neurodiversity as anthropocentric biodiversity and neurocentrism (Chapter 6)?

The Co-Construction of Speciesism and Neuronormativity

This alternative genealogy entails a direct engagement with, and support of, the current efforts towards a *critical* neurodiversity studies, animated by a practice of self-reflexivity and iterative reorientation. In this way, tracing a genealogy of animality in neurodiversity studies does not mean that speciesist logics are specific to this field (compared to disability studies, critical autism studies, etc.), nor that they are unsurpassable. Rather, this suggests that unintended speciesist and dehumanising effects will necessarily follow from uninterrogated humanist orientations in speciesist and neuronormative societies. In this way, dishumanity and disanimality are neither universal problems that would follow as if automatically from the encounter between autism and animality, nor accidental obstacles on the path to neurodivergent liberation, let alone individual flaws resulting from the hostility of neurodivergent communities to the politics of animality. This last explanation is all the more unlikely as the bond between autistic humans and nonhuman animals is frequently described as particularly strong (Chapter 4). Rather, dishuman and disanimal challenges are more accurately understood as the products of the socio-historical conditions in which they emerge: the co-construction of speciesism and

neuronormativity in Western capitalist societies. More than an attempt to disqualify neurodiversity studies or its foundations, then, my endeavour is to embrace the perspective of its radical expansion.

This points to the overarching argument of this thesis, namely, the idea of a co-construction of autism and animality due to the structural entanglement of speciesism and neuronormativity. This is evidenced throughout Part II by various case studies focused on scientific practices and onto-epistemological frameworks that simultaneously produce or reconfigure autism and animality. For example, many of the scientific regimes that dehumanise, pathologise, and medicalise autistic people – such as mechanistic neuroreductionism (Chapter 5) and behaviourism (Chapter 6) – turn out to be further developments of earlier anthropocentric and humanistic traditions of thought or applications of frameworks that were initially developed on nonhuman animals.

This forced pairing of autistic humans and nonhuman animals signals the deep imbrication of speciesism and neuronormativity, particularly in humanist societies, which condition belonging to (typical) humanity on compliance with speciesist and neurotypical expectations (Chapter 4). This suggests that political ambitions to humanise autism and autistic people, which rely on a humanist political grammar of human rights, dignity, and exceptionalism, tend to overlook the central role played by anthropocentric humanism in neuronormativity. By legitimising technologies and apparatuses of power that were instrumental in the development of anti-animal speciesism, the neurodiversity movement risks making these logics available for dehumanising neurodivergent people themselves.

This is particularly visible in the various sites where animality and nonhuman animals are made into 'significant others' of autism, to speak like Donna Haraway: while many autistic people claim strong relations with nonhuman animals, the latter are often reduced to being emotional supports or guides towards a better understanding of human sociality (Chapter 4). While autistic communities repeatedly project autistic traits onto nonhuman animals, and while autism scientists mobilise animal models to develop scientific knowledge about autism in humans, the idea of animal autism (or animal neurodivergence) remains little more than a metaphor in both cases (Chapter 6).

To counter this reduction of animality to a role of constitutive otherness, Part II of this thesis highlights the subversive and radical potential that is activated when autistic people reclaim their animality. This antispeciesist-posthumanist perspective, I argue, not only enables new forms of neurodivergent coalition with animalist movements and allyship with nonhuman animals, but it also constitutes the most strategic horizon for neurodivergent politics itself: only by addressing the deep entanglement of neuronormativity and speciesism *within* humanism can the neurodiversity movement truly fulfil its original ambition of deconstructing the supremacy

of the (neuro)typical human. In this way, while this thesis is centred on autism primarily, the conclusions offered in Part II are applicable within the larger scope of neurodiversity studies and neurodivergent politics.

This critical approach, situated at the intersection of antispeciesism and neurodiversity, envisions a profound reconfiguration of neurodivergent politics, which can no longer brush over the question of animality. The antispeciesist-posthumanist horizon for neurodiversity envisioned in Part II is materialised in Chapter 6 by ethodiversity, a framework that regrounds neurodiversity in a queer and posthumanist ontology and politics of animality. If it is true that neuronormativity relies on an anthropocentric ideal of typical humanity, then reclaiming one's divergent (hum)animality – through therianthropy or what I call ethodivergence (Chapter 6) – can mean performing a joint deconstruction of speciesism and neuronormativity.

Troubling the More-Than-Human Turn: Towards Antispeciesist-Posthumanism Critique

The perspective on posthumanism that unfolds in Part II relies on a partly different methodology than the one offered in Part I. Indeed, whereas Part I engaged in a deconstruction and interrogation of post/humanism, Part II proposes a determined mobilisation (and critique) of posthumanism. This shift is perhaps best captured by the idea that a commitment to antispeciesist politics and neurodivergent liberation justifies moving from theory or philosophy alone to radical action. In this way, Part II moves from deconstructionist readings to situated (but never innocent) theoretico-political interventions.

While claiming a posthumanist perspective, my intent here is to shake up, or rather *trouble*, posthumanism's commitment to non-innocence and (hyper-)relationality. To clarify this intention, it is useful to take a look at Donna Haraway's work. Haraway's last book, *Staying with the Trouble: Making Kin in the Chthulucene*, opens with a discussion of the 'troubling and turbid times'[647] we are experiencing on Earth – an explicit reference to the ecological crisis. The very term 'trouble', whose origin Haraway traces back to Old French, means 'to stir up', 'to make cloudy', 'to disturb'.[648] It evokes both the disturbances of public order (what the French call '*troubles à l'ordre public*') and the loss of bearings and disorientation (as theorised, for example, by Sara Ahmed[649]), which require us to develop new ways of thinking and acting, to inhabit the twists and turns of thinking and 'worlding' with other earthly creatures.

[647] Haraway, *Staying with the Trouble*, p. 1.
[648] *Ibid*.
[649] See Ahmed, *Queer Phenomenology*.

In this book, Haraway makes repeated use of the figure of non-innocence, which refers to a deconstruction of the religious trope of human culpability following the original sin, which continues to be materialised in contemporary societies (including in political movements such as feminism and, as I will show, neurodiversity) in the form of a search for innocence, purity, and salvation (see Chapters 4 and 5). By calling for non-innocence in the face of ecological troubles, Haraway seeks to resist the temptation to return to a pre-cultural, pre-technological state of nature, often described along theological lines of purity and salvation. On the contrary, she issues calls for investing in the troubles of our relationships with human and nonhuman beings on the planet.

Haraway's overarching framework of multispecies relationality – namely, the field of relations between species – is troubling in its willingness to support animal exploitation. Multispecies relationality is one of the primary figures and objects of feminist posthumanism, to which Haraway has so greatly contributed, even though she does not claim the term. While her *Cyborg Manifesto* primarily developed a figure of hybridity (between the human and the non-human, the organic and the technological, etc.), the *Companion Species Manifesto* and *Staying with the Trouble* further explore the relationships between living beings. Whether it is the question of multispecies kinship, symbiotic biology, or our status as beings shaped by technologies, what is at stake for Haraway is to explore new ways of relating between species to generate spaces for ecological recovery.

Furthermore, in *Staying with the Trouble*, multispecies relationality takes on an ontological dimension. With the concept of intra-action, developed by feminist physicist Karen River Barad, Haraway focuses on 'constitutive relatings' that precede individuation rather than follow it.[650] In other words, it is the relationship, rather than the individual, that comes to be considered the smallest possible unit of analysis. The notion of species, traditionally defined in a closed circuit, is thus decentralised in favour of that of 'companion species', necessarily thought of in the plural, that is, from a 'multispecies' perspective (see Chapter 6). If it is true that each individual or species exists only because it is in relationship with others, then its becoming appears to be inextricably linked to that of its companions. In this sense, multispecies relationality reflects ontological, epistemological and ethico-political issues.

In 'A Curious Practice', the book's seventh chapter, Haraway describes collaborative practices between human farmers and animals raised on non-industrial farms. One farmer testifies: 'We don't stop talking with our animals.'[651] Haraway sees in this curious practice of human responsibility in the birthing and killing of animals an ethical horizon that she finds inspiring. In her eyes, this practice demonstrates an ability to constantly *respond* to other

[650] Haraway, *Staying with the Trouble*., p. 64.
[651] *Ibid*., p. 129.

animals, to 'live, and die, by them'.[652] It is not clear to me, however, how farmers are concretely brought to die with 'their' animals, let alone to be killed by them or for them.

In this way, the ethics of responsibility developed by Donna Haraway fits into a *necessarily* relational framework. If the foundation of multispecies ethics lies in the ability to respond to others, then it presupposes physical and affective closeness between humans and nonhumans, thereby ruling out any prospect of abolition (of animal farming or carnism, in particular) or distancing between species.[653] The same applies to symbiogenesis, which, by placing biological relationality at the foundation of evolution and the ontology of life, morally justifies the consumption of animal flesh by humans. The idea that affective or biological proximity between (autistic) humans and nonhuman animals is at the root of a more ethical treatment of the latter is taken up again and critiqued in Chapter 4 of this thesis.

The question of multispecies relationality, central to Donna Haraway's theoretical framework, has therefore drawn the ire of critical animal studies scholars and antispeciesists activists, who have stepped up their increasingly incisive accusations of conceptual violence against nonhuman animals on the part of Haraway (see Chapter 6). Haraway's proximity to anti-vegan breeders (such as Jocelyne Porcher, whom she quotes and acknowledges in *Staying with the Trouble*), and in particular to their theories on collaboration with farm animals, also earns her the favour of environmental humanities scholars. The latter find in Haraway's work a theoretical foundation for the speciesist commonplace about the cycle of life and death, which attempts to justify carnism on the basis that violence exists in nature and that animals eat each other.

Haraway's troubling relationship with animalist politics has since been criticised within the field of feminist posthumanist research. In recent comments on Haraway's work, multispecies relationality has been reevaluated.[654] It no longer appears as a simple onto-epistemological observation – we exist only through relationships – from which an ethical horizon would inevitably follow – how to better inhabit our relationships with animals – but rather as a commonplace, an ontological abstraction, a form of political moderation, or even a source of action paralysis.

---

[652] *Ibid.*

[653] For a discussion of distance between human and nonhuman animals in Gil Bartholeyns and Donna Haraway and an abolitionist approach to animal farming via Haraway, see Ombre Tarragnat, 'Les communautés du compost de Donna Haraway à l'ère du Pathocène', in Denis Bertrand, Pauline Hachette et Everardo Reyes (eds.), *Existences collectives*, Fabula: Les Colloques, 2023.

[654] See, for example, Eva Haifa Giraud, *What Comes After Entanglement? Activism, Anthropocentrism, and an Ethics of Exclusion*, Durham and London: Duke University Press, 2019; Monika Rogowska-Stangret, 'Relationality Inside-out: Revisiting the Relational Turn in Critical Posthumanities', in *Biological Relationalism: The Relational Turn in Contemporary Science, Theory, and Politics*, ed. Aurore Franco-Ricord and Ombre Tarragnat, Cham: Springer, forthcoming.

Indeed, this fetishism of relationality, as I like to call it, constitutes for Donna Haraway a normative horizon that tends to dispel trouble itself and naturalise animal exploitation. Eva Haifa Giraud thus regrets, in *What Comes After Entanglement?*, that the observation that our relationships with animals are not innocent, rather than a prerequisite for interrogating the relevance and modalities of these relationships, seems to have become, in posthumanist thought, the endpoint of the conversation.[655] In *Staying with the Trouble*, Haraway already tacitly acknowledges the limitations of her approach when she admits: 'I am so greedy for stories of critters and their people collaborating in work and play that I do not always see the rough edges and ongoing troubles.'[656] This major admission, relegated to an endnote, never leads her to reflect beyond the ethico-onto-epistemological paradigm of (hyper-)relationality, which remains the main (if not even the only) horizon of her thinking.

Beyond this confession of non-innocence, our commitment to staying with the trouble may sometimes make us so troubled that we can no longer identify the sources of trouble and the potential solutions to it. In this context, the act of stating the non-innocence of a situation or theoretical stance may increasingly function as an operator of depoliticisation. To bring up non-innocence has often become a way of saying that a situation is so complex that no ideal solution can be found. While this is a perfectly acceptable conclusion, it appears that the figure of non-innocence also increasingly reflects an onto-epistemological disposition to diving deep into a hyper-relational sea of more-than-human entanglements from which no disentanglement or distancing may be possible any longer. This trend is reflected in the fact that, although Karen River Barad's theory of agential realism makes room for situated gestures of 'agential breaks', this framework is primarily mobilised in contemporary posthumanist thought to emphasise and celebrate relationality. This suggests, according to Hollin et al., the need for a movement of '(dis)entangling Barad'.[657]

The various forms that the figure of trouble has taken in posthumanist thought today also exemplify this troubling phenomenon: when 'staying with the trouble' increasingly means accepting the status quo or following a doxa, when deconstruction is weaponised as a normative tool, when complexity becomes platitude, then posthumanist philosophy is in great need of corrosive critique. Instead of mobilising non-innocence to tame dissident voices, then, I suggest we use it to dramatise political tensions and try out different political positions, in a gesture of radical proliferation of meanings, practices, and subjectivities. While this does not make us innocent – as we may continue to potentially harm ourselves and others along the way – this

[655] Giraud, *What Comes After Entanglement?*, p. 202, n. 23.
[656] Haraway, *Staying with the Trouble*, p. 172, n. 27.
[657] See Gregory Hollin, Isla Forsyth, Eva Giraud, and Tracey Potts, '(Dis)entangling Barad: Materialisms and Ethics', *Social Studies of Science*, vol. 47, no. 6 (2017), pp. 918–41.

troubling of non-innocence us to show accountability from our human(ist) misdeeds while persevering in our political agendas. In other words, the non-innocence of the 'multispecies trouble',[658] as Haraway calls it, should not prompt us to renounce the ambition of total liberation.

Throughout Part II, this horizon is materialised through a methodology of verbalising trouble. More than a noun – a situation or status quo we must learn to stay with or navigate, such as the animal trouble (Chapter 4), the trouble with humanism (Chapter 4), the neurological trouble (Chapter 5), the species trouble (Chapters 4 and 6), etc. – trouble becomes a verb: may troubling be a better way of dynamising troubling situations, of risking positions in the midst of chaos? Unsatisfied with the prospect of (merely) staying with the trouble, Part II offers to sow further trouble into posthumanism, of *troubling* the more-than-human turn in neurodiversity studies. In many ways, the methodology of troubling developed in these chapters echoes the practice of queering: just like its close relative, troubling entails disrupting stabilised frameworks, subverting hegemonic norms, proliferating counternormative meanings and practices, and reclaiming devalued signifiers and positions.

In ontological and epistemological terms, staying with the trouble entails a form of radical decentring, in which the diffuse and transversal agency of the text or context might come to replace individual agency and decisional autonomy of the human subject. One might at times wonder whether there is still someone ready to take action behind this approach. Who (or what) is this posthuman in the making that might seek to dissolve its moral responsibility in the ecological crisis within the holistic and (often undifferentiated) relationality of living beings or of matter itself? The act of troubling, namely of actively stirring the pot, implies that one (re)claims just enough autonomy to channel the state of being *troubled* (or disabled, or disordered) into a practice of troubling (or disabling, or disordering) hegemonic normativities. This entails a theory of subjectivity and intentionality, even if these concepts might need to be reframed and reformulated in posthumanist key.

If it is true that one is never innocent, then we must draw radical conclusions from this observation and not allow ourselves to be caught up in the mere contemplation or celebration of trouble and relationality. How can we learn to concretely inhabit the current troubling condition? Although such a commitment to action may seem to be taking us a step back from a radical posthumanist onto-ethico-epistemology, I suggest that it is required by the agenda of total liberation. This might also be legitimised by the dishuman and disanimal troubles of autism. Indeed, in an intense – or rather intensely ableist – world that leaves autistic people existentially disorientated and autistic lives materially disordered, reclaiming one's

[658] Haraway, *Staying with the Trouble*, pp. 40, 121, 214.

human(imal) agency may be necessary to simply become aware of, let alone survive to, this disorientation and disablement.

In this way, the conceptual and methodological gestures performed in Part II may leave readers committed to a posthumanist doxa confused – or troubled – and so much the better. What is this posthumanism that appears ontologically rooted in a humanist subject position (namely, autistic animality), methodologically committed to the traditionally humanist theoretical framework of phenomenology, politically orientated towards a humanist horizon of total liberation? Admittedly, I am dramatising the tension and overstating the point here. But the fundamental argument remains: when confronted with the material reality of political praxis and various lived experiences of marginalisation, posthumanism must learn to actively embody the *trouble* instead of making it a conceptual fetish. Perhaps, then, we should turn the question around: What is this posthumanism that is so committed to deconstructing and complicating ontological differences (for example, between animals and plants, or living and non-living beings) that it jeopardises efforts towards animal liberation; so committed to celebrating relationality that it fails to support the abolition of relations of violence; so caught up in staying with the contemporary troubles that it becomes unable to genuinely trouble (i.e. disrupt) the status quo?

My answer to this question lies in what some may call a 'strategic humanism' put in the service of radical posthumanist politics. This means that, to foster truly transformative politics, posthumanism may need to interrogate its sometimes-acritical celebration of relationality. Moreover, it might be justified, perhaps necessary, to mobilise partly humanistic concepts (such as sentience, subjectivity, intentionality, etc.) and frameworks (particularly phenomenology) to formulate transformative theories and politics of posthumanism. In this regard, the onto-epistemological framework which I mobilise in Part II to analyse the intersection of autism and animality is that of animal phenomenology and philosophical ethology, approaches that are replete with humanist assumptions, as we have seen in Part I with Uexküll, Goldstein, and Gehlen. Nonetheless, when recruited into new genealogies of posthumanist thought, and given their potential anti-anthropocentric and antispeciesist applications, they can allow us to resist the conceptual and material violence that affects nonhuman animals and autistic humans as a result of the mechanistic and reductionist legacy of Western modernity.

At the conceptual and onto-epistemological level, this second part of the thesis adopts an approach to posthumanism that is closer to positivity and affirmation than to the negative or critical frameworks that animated Part I. Indeed, the mobilisation of a phenomenological and ontological perspective on autism and animality entails that we reach beyond the moment of deconstruction and complexification to engage in a process of reconfiguration and subversive reclamation. The phenomenological method, even when reframed as a posthumanist

phenomenology, involves positive descriptions of the forms of subjectivity that materialise in given biocultural positions, like those of the animal or the autistic. This means that, instead of simply commenting on the genealogies that have rendered given theories or figures intelligible in given contexts, Part II positions itself more explicitly in favour of given interpretations rather than others. One key dimension of my onto-epistemological orientation is found in my zoocentric approach to posthumanism, which naturally excludes other orientations. The emphasis on animality throughout this thesis might raise questions about other forms of more-than-human life (the vegetal, the fungal, etc.) or materialities (the mineral, the quantum, etc.), but it is nonetheless justified by my antispeciesist orientation. As is common in critical animal studies, my defence of (autistic) animals as sentient beings requires an onto-epistemological framework adapted to the material conditions of life for autistic and animal beings.

The onto-epistemological orientations sustained in Part II thus favour a phenomenological perspective that remains attuned to the ontological specificities of animality (particularly sentience and subjectivity) compared to vegetality or pure physicochemical materiality. In this way, the positivity of my onto-epistemological framework is accompanied by, or rather follows from, the criticality and negativity of my ethico-political orientation, namely an abolitionist approach to the animal and autism industrial complexes.

Although the boundaries between positivity and negativity, humanism and posthumanism, the human and the nonhuman, remain largely blurred throughout Part II, the more affirmative positions I take in Part II prompt me to engage in a different kind of conceptual logic. This is reflected typographically by the removal of the slash in posthumanism and disability: we are no longer talking about creating the necessary distance for dissecting post/humanism, but rather of navigating between different positions and inhabiting the tensions and complexities that arise from them. In this way, humanism and posthumanism are no longer approached as genealogies in formation, but instead as (partly) stabilised positions or frameworks that can be interrogated at given moments. Doing so allows me to inhabit their relationship differently, particularly in sites of dishumanity and disanimality (to which we may add sites of disvegetality, dismateriality, or disecology).

For example, a core argument throughout Part II is found in the idea that ecological understandings of the more-than-human (particularly those that rely on flat and hyper-relational onto-epistemologies) fail to meet the criteria for a radical (e.g. vegan or abolitionist) antispeciesist politics. The posthumanism I envision in these chapters is resolutely antispeciesist. This is also evident in the dialectic of humanisation and dehumanisation (particularly animalisation), which finds a kind of synthesis in the figure of the humanimal. Indeed, my political proposal in Part II can be summed up by the invitation to embrace human animality, particularly autistic animality, understood as a departure from the human/animal

binary and a relocation within the enriched category of animality. The humanimal finally acknowledges (and sometimes celebrates) the nonhuman or inhuman in itself and can thus reground and reconfigure itself as a subject. This is precisely what I envision with the idea of philosophical ethology: an approach that positively defines animality rather than simply deconstructing it. It seems to me that this gesture can already constitute a form of posthumanism in its rejection of anthropocentrism and speciesism, even when it might invest one of the poles of the traditionally humanist binary of human/animal.

Chapter 4 maps the intersection of neurodiversity and animality in order to call for a more-than-human turn in neurodiversity studies. Revealing the tensions between environmentalist or ecological frameworks, on the one hand, and animalist and antispeciesist frameworks, on the other, it highlights some of the limitations of traditional positions in neurodiversity studies, which have relied on a form of anthropocentrism. Furthermore, it examines the ways in which neurodiversity has been mobilised for or against animal liberation and suggests the existence of uniquely neurodivergent forms of speciesism and veganism. Eventually, by examining the co-construction of neuronormativity, ableism, and speciesism (among other axes of oppression linked to coloniality and capitalism), it offers a critical genealogy of neurotypicality as species typicality and reframes neurodiversity as a site of antispeciesist-posthumanist critique.

Next, Chapter 5 highlights the potential harms of neurological discourse in neurodiversity studies and the neurodiversity movement. Whereas nervous systems are often described as the biological substrate of animality, neurological discourse often relies on reductionist epistemologies that have historically harmed neurodivergent humans and nonhuman animals alike. Rather than a provider of innocent or foundational truths, the neurological science should therefore be regarded as a site for contested meanings with a potential for harm and resistance. Calling for a more-than-neurological turn in neurodiversity studies, the chapter invites a decentring of neurology, understood both as a shift from reductionist focus on the brain to a holistic and posthumanist approach to neuroplastic co-regulation, and as the development of alternative modes of figuration beyond neurology.

Finally, Chapter 6 examines the ethologies of autism, a notion that suggests that behaviour has been and remains a defining dimension of autism in social, scientific, and theoretical contexts. While the neurological turn in psychology has partly diverted the agenda of scientific research on autism away from psychoanalysis and behaviourism, the latter have persisted in different sites and continue to target neurodivergent human and nonhuman animals. The chapter offers an overview of the different sites where scientific discourse and practice have targeted autistic and animal behaviour, such as behaviourism, animal models of autism and ethology. In order to resist the hegemonic tendencies of behaviourism, I attempt to reclaim,

subvert, and radically expand behavioural and ethological models of autism and animality, particularly by introducing the framework of ethological diversity.

CHAPTER 4 – TOWARDS A MORE-THAN-HUMAN TURN IN NEURODIVERSITY STUDIES

INTRODUCTION

This chapter maps the intersection of neurodiversity and animality in order to call for a more-than-human turn in neurodiversity studies. The phrase 'more-than-human' broadly refers to an expansive position that reaches beyond the human to include other-than-human or nonhuman beings, from animals to plants, environments, fungi, etc. It also embodies a critique of anthropocentrism. Because this chapter examines a range of theoretical and political positions (environmentalist, posthumanist, antispeciesist), it uses the figure of the more-than-human (instead of the more specific figure of the animal) as a productive site of encounter and friction between these approaches. However, seeking to sustain an animalist, antispeciesist, and posthumanist approach to neurodiversity, it highlights the limitations of other more-than-human positions in the movement's history, often rooted in ecological models and humanist thinking.

In order to resist what I will call neurodivergent speciesism, the chapter introduces new approaches, such as neurodivergent veganism, as well as an antispeciesist-posthumanist redefinition of neurodiversity. To this end, the chapter evidences a set of frictions – or troubles – regarding concepts and approaches such as the human/humanism, species/speciesism, and the animal/animalism, which it attempts to turn into sites for productive discussions at the confluence of neurodiversity and animality.

This chapter also draws on a body of texts – academic scholarship, memoirs, and activist writings by autistic people – which have contributed to the overall discussion of autism and animality. Some of these texts, more than ten years of age, rely on a critical autism studies or (critical) disability studies approach, thus predating the consolidation of neurodiversity studies. Without aiming for exhaustivity in its overview of existing research, this chapter ultimately seeks to make a distinct contribution from the perspective of critical neurodiversity studies.

I — MORE-THAN-HUMAN TROUBLES IN NEURODIVERSITY STUDIES

This section maps some of the troubled and troubling encounters between various more-than-human approaches in relation to neurodiversity. To do so, I explore several sites where

neurodiversity encounters the more-than-human. First, I show that the neurodiversity concept was developed in direct parallel with biodiversity. By examining the definition of neurodiversity offered by Australian sociologist Judy Singer, I demonstrate that neurodiversity studies has relied on an ecological model rooted in dualist humanist thinking, which champions an exclusion of nonhuman animals. Turning to Joe Harkness's recent publication on neurodiversity in the conservation sector, I further demonstrate that ecological models tend to justify the oppression of nonhuman animals, especially when understood through the framework of *neurodivergent speciesism*. This approach uses neurodivergent experiences to naturalise the more-than-human world and justify zoocidal violence.

Then, I turn to the relationship between autistic people – particularly women – and exploited nonhuman animals in industrial farms and zoos. I offer a reading of autistic life writing by Temple Grandin and Dawn Prince-Hughes. I discuss the question of whether (female) autistic people are closer to nonhuman animals by nature, a claim that has been sustained by Grandin herself. Using crip approaches in critical animal studies, I suggest that the affinity between autistic humans and nonhuman animals is mainly rooted in shared oppression and should not be used to justify speciesist oppression. Introducing an ethics of non-innocence inspired by Donna Haraway and feminist autistic thinkers, I argue for new ethical forms of engagement with nonhuman animals, such as neurodivergent veganism.

Finally, introducing the rich academic and activist discussions positioned at the intersection of animality and disability/neurodiversity, I demonstrate another field of ambivalence. While increasing attention has been devoted to the co-construction of anti-animal speciesism and ableism, I return to Michael Lundblad's concept of disanimality, which describes the uncomfortable affects, and sometimes harmful effects, produced by comparisons between disabled people and nonhuman animals. Drawing on critical and intersectional approaches to animality and neurodiversity from the Global South, particularly Latin America, I emphasise the potency of new perspectives which may justify the reclamation of autistic animality, or what Berenice Vargas García calls a(û)nimality.

This first section of the chapter foregrounds an array of *more-than-human troubles* in neurodiversity studies. These troubles first concern the movement's relationship to humanist thinking and a humanist political grammar, which have been central to its development but tend to carry speciesist assumptions that risk harming both nonhuman animals and neurodivergent humans. I also note an animal trouble, which signals the profound ambivalence that has characterised the bond between autistic humans and nonhuman animals.

1. From Biodiversity to Neurodiversity: Ecology, Anthropocentrism, and the Exclusion of Nonhuman Animals

Neurodiversity studies, as a field of scholarly research that emerged in the aftermath of the neurodiversity movement's development at the end of the twentieth century and in the first decades of the twenty-first century, has, from the outset, shown a degree of engagement with biology. This is evident in the very terminology developed by this field: the term 'neurodiversity' explicitly mirrors the concept of 'biodiversity' and the field's ongoing engagement with neurology further cements its relationship with the life sciences at large.[659] It is no overstatement to say that the parallel with biodiversity – along with the ubiquitous reliance on neurological discourse, explored in Chapter 5 – has functioned as a cornerstone in the development of the neurodiversity movement. As I will show below, one of the early definitions of neurodiversity, provided by Judy Singer, directly claimed this connection. To this day, the idea that the biodiversity concept is key to neurodiversity thinking has largely circulated within the movement. The first published writings that mentioned neurodiversity – by Harvey Blume and Judy Singer – tended to make the analogy explicit and described neurodiversity as an *ecological* model pointing towards an 'ecological society'.[660] This inspired more recent writings that expanded the ecological approach, for instance by Robert Chapman.[661] While offering an exhaustive account of the ways biodiversity discourse has influenced neurodiversity discourse from its inception to this day is beyond the scope of this chapter, it is possible to report an affinity for the concept in neurodivergent communities.[662]

a) Neurodiversity as Biodiversity without Nonhuman Animals

In order to demonstrate the tension between the biological roots of neurodiversity and its humanist political horizon, I first turn to Judy Singer's definition of neurodiversity as a subset of biodiversity. Interestingly, the invention of the term 'neurodiversity' was long attributed to and claimed by Judy Singer, one of the core figures in the field of neurodiversity studies and

[659] Judy Singer, *NeuroDiversity: The Birth of an Idea*, 2016, p. 27.
[660] See Blume, 'Neurodiversity'; and, more broadly Singer, *The Birth of an Idea*.
[661] See Robert Chapman, 'Neurodiversity and the Social Ecology of Mental Functions', *Perspectives on Psychological Science*, vol. 16, no. 6 (2021), pp. 1360–72.
[662] An early version of this subsection, published with *Trace ∴ Journal for Human-Animal Studies*, garnered some attention from neurodivergent communities. It put me in touch with a diversity of autistic people – often beyond the borders of academia – who were interested in thinking more thoroughly about the more-than-human nature of neurodiversity. This manifest commitment of autistic individuals to matters of biodiversity and animality obliges me and infuses my thinking. This chapter is dedicated to them.

the neurodiversity movement. Singer, herself 'in the middle of three generations of women somewhere on the autistic spectrum',[663] is the daughter of a Jewish survivor of Auschwitz, from whom she received her political sensibility for the inclusion of the marginalised and the promotion of human rights, and to whom she links the inspiration of her work on neurodiversity.[664] Only recently, this attribution of the term 'neurodiversity' to Singer was proved inaccurate, and its collective origin within the *Independent Living* (InLv) online community was evidenced.[665] While correcting the misattribution of the term is a major step forward in the historiography of neurodiversity studies, the cultural prominence from which Singer's work has benefited in the movement, perhaps in part due to this misattribution, makes her writings essential when discussing the field's history. Singer's role in the history of neurodiversity might thus be smaller than initially proposed, but it remains instructive precisely because of its initial prominence.

The terminological proximity between 'biodiversity' and 'neurodiversity', which was put forward by Judy Singer in her Honours dissertation from 1998,[666] is contradicted by an ambiguous relationship between neurodiversity studies and the life sciences, characterised by a rather superficial engagement. In a text published on her blog, Singer describes neurodiversity as 'a biological truism that refers to the limitless variability of human nervous systems on the planet, in which no two can ever be exactly alike due to the influence of environmental factors'.[667]

Singer's description of neurodiversity, while more thoroughly engaged with matters of biodiversity than is often the case in the activist circles that make up the neurodiversity movement, constitutes a relatively common understanding of neurodiversity as a form of biodiversity. Although Judy Singer did not coin the term 'neurodiversity' and while her views are not representative of the entirety of the research field of neurodiversity studies, critically engaging with her work helps reflect on the early history of the neurodiversity lexicon, particularly in relation to the life sciences. Drawing on this case study, I seek to highlight the risk of anthropocentrism and biological determinism that arise when the relationship between biodiversity and neurodiversity is reduced to an analogy.

---

[663] Judy Singer, Twitter/X, 12 March 2020, accessed 24 March 2024. https://twitter.com/singer_judy/status/1238187763112923142.
[664] Judy Singer, Twitter/X, 10 November 2023, accessed 24 March 2024. https://twitter.com/singer_judy/status/1722899819440832770.
[665] Martijn Dekker, 'A Correction on the Origin of the Term "Neurodiversity"', 13 July 2023, accessed 24 March 2024. https://www.inlv.org/2023/07/13/neurodiversity-origin.html; Botha et al., 'The Neurodiversity Concept Was Developed Collectively'.
[666] For Singer's dissertation, see Judy Singer, *Odd People In. The Birth of Community amongst People on the "Autistic Spectrum"*, Honours dissertation, University of Technology Sydney, 1998.
[667] Singer, 'Judy Singer's Official Definition of Neurodiversity'.

The Convention on Biological Diversity defines biodiversity as 'the variability among living organisms from all sources [...] and the ecological complexes of which they are part; this includes diversity *within species*, between species and of ecosystems'.[668] Given the inclusion of intraspecies diversity in the definition of biodiversity, one might wonder how neurodiversity differs from biodiversity. Because nervous systems constitute only a part of life forms, and only of *some* life forms – namely, the vast majority of animals – neurological diversity appears to constitute a subset of biological diversity. Judy Singer explicitly acknowledges this, yet she ultimately excludes nonhuman animals from the subset. While she explains that 'Neurodiversity is a subset of Biodiversity', she suggests that 'just as Biodiversity refers to ALL the species [...] Neurodiversity refers to ALL Humans'.[669] Surprisingly, Singer's concept of neurodiversity does not include all animals endowed with a nervous system but *human* animals only, thereby describing a form of biodiversity that omits nonhuman animals. In this way, it reinforces a form of anthropocentrism.

Central to this anthropocentrism is Singer's claim that 'just as Biodiversity was coined for a political purpose, to advocate for the conservation of the environment, I intended the term Neurodiversity specifically for an advocacy purpose'.[670] In her thesis, Singer (incorrectly) asserts that she created the neurodiversity concept, though not the neurodiversity movement, which was already emerging within the InLv community. Her contribution is thus at best an academic and intellectual investigation of the burgeoning movement from a sociological perspective. Had the neurodiversity concept emerged in closer connection to biodiversity science or within environmentalist movements, its definition would likely have been very different. Since 'biodiversity' was coined to preserve the diversity of life forms on planet Earth,[671] 'neurodiversity', as its subset, might have aimed to protect the diverse modes of functioning of all nervous systems. However, the neurodiversity movement followed a different agenda. From its origins, it relied on a human rights approach, taking as primary goals 'recognition', 'civil rights and end to discrimination', and 'disability services appropriate to their level of functioning on the spectrum'.[672] These objectives operate at a different level than the goal of conserving a diversity of neurological systems understood as life forms. This discrepancy explains why 'literally, the term [neurodiversity] refers to all beings with a nervous

[668] Convention on Biological Diversity, 'Article 2. Use of Terms', n.d., accessed 24 March 2024, emphasis mine. https://www.cbd.int/convention/articles/?a=cbd-02.
[669] Singer, 'Judy Singer's Official Definition of Neurodiversity'. Capital letters by Singer.
[670] *Ibid*.
[671] See Yrjö Haila, 'Biodiversity and the Divide Between Culture and Nature', *Biodiversity and Conservation*, vol. 8 (1999), pp. 165–81; David Takacs, *The Idea of Biodiversity: Philosophies of Paradise*, Baltimore: Johns Hopkins University Press, 1996.
[672] Singer, *The Birth of an Idea*, p. 55.

system, but since I coined it for a human rights advocacy purpose, I limited it to Homo Sapiens. The term Biodiversity covers the rest'.[673]

By distinguishing the human, deserving of rights (e.g. recognition, civil rights, disability services, etc.) from the environment, deserving only of conservation, Singer excludes nonhuman animals from the political discourse of neurodiversity. Her writings anchor the theoretical conception of neurodiversity in a set of dualisms – nature/culture, animals/humans, science/politics. That such dualisms existed in implicit, non-theoretical forms within the nascent neurodiversity movement is unsurprising. However, Singer not only echoes them but also reclaims and attempts to justify them theoretically. As Sam Fellowes has noted, the idea 'that only forms of human diversity matter, therefore neurodiversity does not cover animals [...] seems arbitrary'.[674] Following Singer's description, it would appear that preserving nonhuman neurological diversity would require investing time and energy in the environmentalist rather than the neurodiversity movement.

Curiously, Singer (like the neurodiversity movement) does begin with biodiversity, taking it as the explicit foundation of the concept. Engaging more deeply with these biological roots could be fruitful if neurodiversity were to take a more-than-human turn. For instance, biodiversity research focuses on environments and species rather than on individual beings alone. It bridges the nature/culture dualism by highlighting the role of environmental factors in animal and human lives. As we have seen, Singer's description of neurodiversity mentions environmental factors as causes of human neurodiversity. There are clearly overlapping patterns at play, yet they remain largely unexplored by Singer and by most work within neurodiversity studies. The political horizon of the movement – which, it must be acknowledged, is a matter of life and death for many – somehow constrains both the movement and the scholarship from fully engaging with these biological roots.

While it is clear that neurodiversity theory should serve neurodivergent politics, it is also true that the ways we produce and engage with theory shape the forms our politics take. This implies that, if we want to connect neurodiversity with ecological and more-than-human concerns, biodiversity should not function only as a metaphor or analogy, i.e. as a rhetorical building block in neurodiversity studies. At present, Singer's speciesist engagement with biodiversity is directly reflected in the humanist political grammar of the neurodiversity movement. To overcome this limitation, it would certainly be useful to take biodiversity more literally. In my eyes, a more-than-human engagement with the biodiversity roots of

[673] Singer, 'Judy Singer's Official Definition of Neurodiversity'.
[674] Sam Fellowes, 'Should Neurodiversity be Extended to Animals?', 11 June 2022, accessed 24 March 2024. https://samfellowes.com/philosophyofpsychiatryblog/index.php/2022/06/11/should-neurodiversity-be-extended-to-animals/.

neurodiversity should involve recognising the traits that animals share across species, perhaps by virtue of having nervous systems. This approach would not only support a new conception of neurology – something I address in the next chapter – but also affirm that neurodiversity includes most animal species.

The concept of animal neurodivergence is almost entirely absent from both the scholarship on neurodiversity and the cultural and activist work of the neurodiversity movement. As a counter-example, I turn again to Sam Fellowes. In a blog article, he asks: 'Should neurodiversity be extended to animals?' After critiquing several arguments against such an extension, Fellowes concludes 'that a neurodiversity advocate needs either give reason to restrict neurodiver[sity] to humans or should extend it to animals'.[675] Stances like Fellowes's are rare in the field. This reveals an ambivalent relationship to the life sciences, which is far from unique to neurodiversity: the sciences are commonly used by social justice movements as providers of foundational truths and useful metaphors, but they are rarely engaged with in depth. Such a 'biologism',[676] as Thierry Hoquet calls it, is not only naturalising but also depoliticising: it reverses the causality, acting as if social and political factors did not influence and instrumentalise biology in the first place.

Unlike many in neurodiversity studies, Singer attempts to integrate the life sciences into her (anthropocentric) politics but does so in troubling ways. Singer, who has long touted her progressivism, recently marked a sharp turn in the history of the neurodiversity movement by making a very public transphobic intervention in the summer of 2023. In comments posted on Twitter, she invoked alleged biological differences to justify denying the term 'women' to trans women and suggested using 'Trans Femoid' as a replacement.[677] By appealing to biology in such a naïve and naturalised ways – for example, through Singer's idea that neurological diversity is a 'biological truism' – are we not also at risk of using it in the worst possible way?

I will return to this argument of an ambivalent relationship to the sciences in more depth in the next chapter. For now, I would like to highlight that similar debates can be observed within disability studies with the social model of disability. While neurodiversity studies is not reducible to disability studies, it has greatly benefited from the social model of disability. In recent decades, the social constructionist understanding of oppression – focused on the social, sometimes at the expense of the biological – has faced growing criticisms and challenges.[678]

---

[675] *Ibid*.
[676] Thierry Hoquet, *Le Nouvel Esprit scientifique*, Paris: Presses Universitaires de France, 2022, p. 229, my translation.
[677] Judy Singer, Twitter/X, 13 June 2023, accessed via Camilla Asra Engelby, 'Transphobic Actions that has Devastated the Neurodiversity Community', accessed 24 March 2024. https://www.engelby.dk/transphobia-and-the-neurodivergent-community/.
[678] Rosemarie Garland-Thomson, *Extraordinary Bodies: Figuring Physical Disability in American Culture and Literature*, New York: Columbia University Press, 1997; Shakespeare, 'The Social Model of Disability'.

This reflects a broader tendency to approach the life sciences and material phenomena with caution. Emerging in the 2000s, neurodiversity studies is caught in this ambivalence: while grounded in a naturalistic impulse – a seemingly superficial blending of neurology with biodiversity – it also intends to resist oversimplified forms of biological determinism and essentialism. In her book, Singer offers a pointed critique of social constructionism, arguing that its political usefulness does not excuse, in her view, its anti-biologism.

In light of these critiques, Singer explicitly positions her thinking at a measured distance from the social model of disability, which she suggests errs in denying a role to biology. Nonetheless, she remains wary of essentialism and seeks a balance between social constructionism and biological determinism.[679] Specifically, she welcomes recent 'developments in the biological sciences',[680] including 'neurology' and 'evolutionary psychology'[681] – a school of thought widely criticised for its tendency to naturalise the social structures of oppression. Writing at a time when evolutionary psychology enjoyed a more favourable reputation, Singer speculates whether 'a propensity for stigmatisation has adaptive value and is "hardwired" into the human organism',[682] thereby providing a biological justification for the oppression of neurodivergent people.

While Singer's use of biology – and particularly biodiversity – remains marginal, and while her impact on the neurodiversity movement or neurodiversity studies should not be overstated, the problems her writings exemplify are not exceptional. A similar issue arises in neurodiversity's engagement with neurology, which I return to in the next chapter. For now, I extend my focus on biodiversity discourse, which has recently experienced an important resurgence. I will argue that much biodiversity and conservation discourse reproduces speciesist gestures, a phenomenon that highlights the theoretical and political tensions between ecological and animalist movements.

b) **Neurodiversity as a Tool for Biodiversity Conservation**

In a recent publication, author, speaker, and mental health advocate Joe Harkness describes the experience of being 'neurodivergent, by nature'.[683] Diagnosed with ADHD, Harkness observed a strong affinity for nature in himself and his neurodivergent peers. To understand what draws

[679] Singer, *The Birth of an Idea*, pp. 38–40.
[680] *Ibid*., p. 40.
[681] *Ibid*., p. 27.
[682] *Ibid*., p. 39.
[683] Joe Harkness, *Neurodivergent, by Nature: Why Biodiversity Needs Neurodiversity*, London and Dublin: Bloomsbury, 2025.

neurodivergent people closer to nature, he became interested in the conservation sector, a professional field outside his own expertise. To learn more, he interviewed dozens of neurodivergent professionals (ADHDers, dyslexics, autistics, etc.) from the United Kingdom. This allowed him to map the unique skills and obstacles faced by neurodivergent individuals in the conservation sector. From this inquiry, Harkness concludes that neurodivergent people bring important skill sets to the field and that 'biodiversity needs neurodiversity'.[684]

In doing so, Harkness deepens the ties between biodiversity and neurodiversity in such a way that their relationship can no longer be reduced to analogy or metaphor. On the contrary, the idea that neurodivergence is a natural phenomenon re-anchors neurodiversity in the realm of the biological. But, like Singer, Harkness is not a philosopher or a theoretician. His book does not offer a thorough conceptualisation of (neurodivergent) nature; on the contrary, as I will show, it relies on a largely conventional understanding of it, which I intend to problematise. In critically engaging with his descriptions, my aim is not to highlight individual failures but to use Harkness's work as an example of the simplified understanding of nature at work in parts of the neurodiversity movement. That said, it is worth noting that the book makes a thorough and well-researched account of the contributions and needs of neurodivergent people within the United Kingdom conservation sector, an aspect of significant value.

The book opens with a scene that is likely to be experienced as troubling by readers committed to antispeciesism. Harkness describes his entomological practice, which involves macerating moth abdomens for hours before 'check[ing] their genitalia',[685] a necessary step for identifying the individual. He acknowledges the unconventional nature of his practice and wonders what his readers will think of it. Anticipating that some may be weirded out by his 'niche nature interests',[686] he describes himself, through their assumed perspective, as 'a member of some kind of bizarre moth fetish group'.[687] But it is not the quirkiness of Harkness's special interest, nor the queer orientations it suggests, that troubles me here, but rather the ease with which the killing and objectification of nonhuman animals is justified by neurodivergent special interest.

Harkness anticipates potential concerns with a disclaimer: 'If you've no idea what moth trapping is and have visions of me sadistically catching, torturing and murdering these timid butterflies of the night, I want to assure you that it's a humane activity.'[688] From a vegan and antispeciesist perspective, it is far from clear that the trapping and killing of nonhuman animals for fun – regardless of method – can ever be considered *humane*. Harkness acknowledges that

[684] *Ibid.*, pp. 231–46.
[685] *Ibid.*, p. 7.
[686] *Ibid.*
[687] *Ibid.*
[688] *Ibid.*, p. 8.

'the act of moth trapping, when put into words, comes across as a bit odd'.[689] Yet again, it is the weirdness of his practice that he foregrounds as the origin of his hobby and as the starting point for his inquiry. He recalls: 'This weirdness and that message about moths got me wondering about people interested in other niche wildlife topics. What drives someone to study the mating behaviour of garden spiders?'[690]

Of course, Harkness has neurodivergence in mind here. When presenting his book project to an editor, he 'shared that I'd quite recently discovered that I'm neurodivergent and said I wasn't sure if any of the naturalists I'd spoken to might also be neurodivergent. Now, of course, I wanted to find out'.[691] It was unsurprising, he notes, 'when most of the prospective contributors were candid enough to share that yes, they are neurodivergent'.[692] Harkness acknowledges that this could be coincidental: as neurodivergent people often attract one another, it would only make sense that he ended up conversing with neurodivergent peers, regardless of the professional sector he chose to explore.

But Harkness is not wrong to wonder whether (and why) 'lots of neurodivergent people might actually have a bit of an obsession with nature'.[693] This was and remains a perfectly relevant research question, and one to which no clear answer has yet been given. The issue with Harkness's starting point, then, is not that it presupposes neurodivergence as a site of affinity with the more-than-human world. Indeed, a similar intuition fuels my own inquiry, particularly in relation to nonhuman animals. Rather, my concern is that Harkness uses his hypothesis to naturalise what I term a form of *neurodivergent speciesism*: a justification for violent practices under the pretext of one's neurodivergent 'weirdness'. This rhetorical position not only legitimises the objectification of 'nature' through neurodivergent self-advocacy but also strips weirdness – a term largely reclaimed by neurodivergent communities[694] – of its radical political force.

In Harkness's account, being neurodivergent is treated as if it were an objective reason (or worse, a potential excuse) for engaging in speciesist and zoocidal practices. Not only do not all neurodivergent people participate in or condone such practices, but there is also, as we shall see, a growing tradition of *neurodivergent veganism*. Besides its speciesist assumptions – namely, the notion that trapping and killing insects for pleasure can ever be considered humane – the book is further permeated by an essentialist and anthropocentric conception of nature. My

[689] *Ibid.*, p. 9.
[690] *Ibid.*
[691] *Ibid.*
[692] *Ibid.*
[693] *Ibid.*
[694] See Walker, *Neuroqueer Heresies*, p. 162, who speaks of the 'weird potentials and inclinations' of autistic people, or the recent movement for Weird Pride. On this topic, see Helen Edgar, 'Weird Pride', *Autistic Realms*, n.d., accessed 10 February 2026. https://autisticrealms.com/projects/weird-pride/.

hypothesis is that this is the case, more broadly, in most accounts of biodiversity in neurodiversity discourse.

Throughout the book, Harkness suggests that the issues faced by neurodivergent humans, such as sensory overload or over- and understimulation, are only found in urban environments and that immersion in nature prevents these unpleasant experiences. While this may be true for some, and while there are certainly reasons to support this claim, it is troubling how Harkness depicts a natural landscape imbued with imaginaries of purity, changelessness, health, and innocence. As feminist theorists have taught us, the term 'nature' should never be used lightly.[695] Nature is not an objective reality existing outside of us; rather, it functions as a regulatory ideal aligned with normative lines of gendered, racialised, classed, and disablist oppression.

Indeed, most research on the relationship between neurodivergent people and the natural world reveals a much more ambivalent bond. For example, in a paper examining autistic people's experiences of weather patterns and climate change, I identified a range of highly positive affects (such as joy, fascination, special interest, and identification) as well as negative ones (including sensory and cognitive overstimulation and vulnerability to change).[696] One takeaway from the article was that, in a world increasingly shaped by climate change, it is no longer possible to conceive of nature as a monolithic, stable entity existing outside ourselves. Instead, nature should be understood as a set of relational phenomena that pervade and constitute us, yet also retain the power to unmake us, producing unique forms of vulnerability for autistic people.

Like many in the neurodiversity movement, Harkness depicts *nature* as a backdrop for human action and as a tool for neurodivergent wellbeing. While the book engages with conservation practices, the bilateral relationship between neurodivergent humans and nonhuman nature is consistently framed in terms of utility. For example, Harkness titles the fourth chapter of the book 'Hugging a Tree for a Dopamine Fix: The Importance of Nature'. The chapter details numerous ways in which connecting to nature benefits neurodivergent people, particularly in therapeutic or educational contexts. Harkness also describes his own interest in birdwatching as 'an immersive, multisensory activity that simultaneously stimulates and soothes our brains', yet he does not consider its implications or utility (or lack thereof) for the birds themselves.[697] Nature is important for humans, as we all know, but is it also important in and of itself?

---

[695] See for example Val Plumwood, *Feminism and the Mastery of Nature*, New York and London: Routledge, 1993; Donna J. Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness*, Chicago: Prickly Paradigm Press, 2003; Cecilia Åsberg, 'Feminist Posthumanities in the Anthropocene: Forays into the Postnatural', *Journal of Posthuman Studies*, vol. 1, no. 2 (2017), pp. 185–204.

[696] See Tarragnat, '"Le personnel est climatique". This line of inquiry could be usefully expanded in future research.

[697] Harkness, *Neurodivergent, by Nature*, p. 59.

Moreover, Harkness explains that, in order 'to truly self-regulate', he has an 'innate need to be outside'.[698] This, he notes, is not so much a way to 'manage my mental health symptoms, as I originally thought, but to manage the symptoms of my ADHD'.[699] Beyond the pathologising language implied by a term like 'symptoms', Harkness argues that neurodivergence more broadly requires connection to nature to be lived harmoniously. He concludes: '[w]herever the symptoms arise from, the benefits of nature connection are numerous and wide ranging. Water, woodland and wildlife all play their part in the web of wild wellbeing that we are a part of, and that sustains so many of us'.[700] How nonhuman life is sustained in the process – or, more often, negated – emerges only later among the book's concerns.

Admittedly, some passages in the book gesture toward a more egalitarian relationship with the nonhuman world. Harkness's emphasis on conservation leads him to learn about a diversity of projects in which conservation professionals have a positive impact on biodiversity, which is commendable. Whether conservation constitutes a sufficiently ambitious horizon for ecological – let alone antispeciesist – politics is another question. At the end of Chapter 4, Harkness highlights the forms of nature connection promoted by Helen Mason, an occupational therapist and sensory integration practitioner. More than mere reconnection to nature, Mason advocates what she calls a form of 'co-regulation', a concept which I explore in Chapter 5 of this thesis through a posthumanist reconceptualisation of neuroplasticity. Harkness also reports that in studies conducted in 2024, researchers found that, 'when foraging for resources', ADHDers 'tend to *explore* an environment […] rather than automatically exploiting it'.[701]

Even in these more positive forms of engagement with the nonhuman world, Harkness's interpretation remains tied to an essentialist understanding of nature and a naturalisation of neurodivergent experiences. He does not shy away from suggesting that neurodivergent experiences are 'instincts from pre-modern times'[702] and exemplify a form of humanity not yet severed from nature, one to which, he argues, we should aspire to return. The essentialist framing of this thesis of pre-modern instincts is coupled, in Harkness's writing, with neurological reductionism and behavioural essentialism:

> Work in conservation is always going to require a unique skillset, but what if these distinct abilities were innate, and built into your cognitive wiring? What if they came alongside a set of behaviours that stood you apart from your peers positively in certain areas, yet, at the same time,

[698] *Ibid.*
[699] *Ibid.*
[700] *Ibid.*
[701] *Ibid.*, p. 74.
[702] *Ibid.*

> singled you out as different in ways that many other people couldn't understand? This is what we bring as neurodivergent folk.[703]

The problems of neuroreductionism and behavioural essentialism are addressed respectively in Chapters 5 and 6. For now, it is worth noting that, by portraying neurodivergent humans as closer to plants, animals, and ecosystems 'by nature', Harkness reinforces a humanist and dualistic framework in which neurotypical is to neurodivergent as culture is to nature. While certainly well-intentioned, this rhetoric risks likening neurodivergence to a form of infra-humanity. It not only homogenises neurodivergent experiences of nature but also encourages a fetishist gaze, casting neurodivergent people as exotic beings whose affinity for nature may also be positioned along lines of gender, race, and ethnicity. In doing so, it may ultimately risk contributing to the widespread dehumanisation of neurodivergent people.

Regarding animality specifically, Harkness's book operates through the same dynamic observed in Judy Singer's conception of neurodiversity, in which 'biological truisms' served as foundations and justifications for exclusionary practices. While strengthening the bond between biodiversity and neurodiversity, Harkness's book is permeated by unquestioned humanist and anthropocentric representations of nature (including neurodivergence *as* nature) rooted in modern Western thought. As we will see again below, this also highlights a friction between ecological or environmentalist approaches and antispeciesist or animalist approaches.

2. Autistic Humans and Nonhuman Animals: Neurodivergent Speciesism and Neurodivergent Veganism

While antispeciesist positions are rare in neurodiversity studies, animals abound in the narratives of neurodivergent people. Although it is not uncommon to hear about the special bonds formed between neurodivergent humans and nonhuman animals, these accounts rarely point to animal neurodivergence. On the contrary, most discussions of animality in neurodiversity focus on how nonhuman animals benefit neurodivergent humans, serving as 'emotional support animals' or 'guides' towards a better understanding of human sociality.

In animal-assisted therapy (also known as animal-assisted intervention), for example, the supposedly natural affinity of neurodivergent humans – particularly autistics – for animals is often invoked. Recent research in autism science reports various benefits of animal-assisted

[703] *Ibid*., p. 92.

therapy for autistic individuals.[704] A core issue with these studies, however, is that they operate within a medical model rooted in the pathology paradigm: their goal is often not to enhance autistic people's quality of life or promote broader acceptance of autistic traits, but rather to encourage autistic individuals to behave more neurotypically. When studies report 'improvements' in social communication or reductions in so-called 'problem behaviours', it is unclear that these outcomes truly serve the best interests of autistic people.[705] Autistic-led research on animal-assisted therapy is necessary to produce more reliable and relevant results.

Another important concern is whether training and using nonhuman animals to therapeutically assist autistic people causes them harm. Scholars in human-animal studies have been at the forefront of these discussions, highlighting numerous ethical issues inherent in animal-assisted therapy. In mainstream animal studies, debates around animal welfare have been central, aiming to foster better working conditions for support and service animals.[706] Critical animal studies, by contrast, have articulated more radical perspectives and ambitious horizons, distinguishing practices that should be abolished from those that may continue under strict ethical conditions.[707] Unfortunately, critical approaches to the ethics of animal-assisted interventions are not always integrated within a critical disability studies framework or aligned with the neurodiversity paradigm. On the contrary, it is not uncommon to encounter pathologising accounts of autism coexisting with animal rights discourse.[708]

There are marginal contributions positioned at the intersection of critical disability studies and critical animal studies, for example under the label of crip animal studies. Drawing on feminist care ethics, feminist ethics of vulnerability, or other ethical and political frameworks, these contributions examine the conditions for therapeutic interventions that respect both

---

[704] See, for instance, Amy Kate Rehn, Victoria Rose Caruso, and Saravana Kumar, 'The Effectiveness of Animal-Assisted Therapy for Children and Adolescents with Autism Spectrum Disorder: A Systematic Review', *Complementary Therapies in Clinical Practice*, vol. 50, art. 101719 (2023); Anna Beavers, Antoinette Fleming, and Jeffrey D. Shahidullah, 'Animal-Assisted Therapies for Autism', *Current Problems in Pediatric and Adolescent Health Care*, vol 53, no. 11, art. 101478 (2023); Marguerite O'Haire, 'Animal-Assisted Intervention for Autism Spectrum Disorder: A Systematic Literature Review', *Journal of Autism and Developmental Disorders*, vol 43, no. 7, art. 1606-22 (2013).

[705] This point was made beautifully by Hannah Monroe. See Hannah Monroe, 'Ableism, Speciesism, Animals, and Autism', in *Animaladies: Gender, Animals, and Madness*, ed. Lori Gruen and Fiona Probyn-Rapsey, New York and London: Bloomsbury Academic, 2018, p. 97.

[706] See, for example, Aubrey H. Fine, Alan M. Beck, and Zenithson Ng, 'The State of Animal-Assisted Interventions: Addressing the Contemporary Issues that will Shape the Future', *International Journal of Environmental Research and Public Health*, vol. 16, no. 20, art. 3997 (2019); Jose M. Peralta and Aubrey H. Fine (Eds.), *The Welfare of Animals in Animal-Assisted Interventions: Foundations and Best Practice Methods*, Cham: Springer, 2021.

[707] See, for example, Tzachi Zamir, 'The Moral Basis of Animal-Assisted Therapy', *Society and Animals*, vol. 14, no. 2 (2006), pp. 179–99; Karin Hediger, Herwig Grimm, and Andreas Aigner, 'Ethics of Animal-Assisted Psychotherapy', in *Oxford Handbook of Psychotherapy Ethics*, ed. Manuel Trachsel et al., pp. 904–16, Oxford: Oxford University Press, 2019; Katherine Fletcher, 'The Moral Ambiguity of Animal-Assisted Therapy and the Conflicts of Medicalizing Another Social Species', *Journal of Animal Ethics*, vol. 15, no. 1 (2025), pp. 17–31.

[708] This is notably true in the French context which I navigate, where neurodiversity studies is only incipient. For an example of this, see Marine Grandgeorge, 'Les apports de l'animal dans le développement des enfants aux troubles du spectre autistique', *Sens-Dessous*, vol. 16, no. 2 (2015), pp. 17–26.

nonhuman animals and disabled humans and may even be 'co-emancipatory'.[709] That said, similar discussions have yet to emerge within neurodivergent spaces, where service animals are often described – at least in public discourse – as emotional support animals.

Beyond theoretical discussions of animal ethics and animal-assisted therapy, many autistic people report profound affinities with nonhuman animals, which manifest as affective, epistemic, and ethico-political engagements. To explore these subcultural trends, I turn to autobiographical narratives and memoirs written by autistic people. In line with the neurodiversity paradigm, I note that much scientific writing on autism and autistic cultures continues to rely on pathologising and reductionist frameworks. Drawing on the theory of situated knowledges (more in Chapter 5), I therefore prioritise accounts of autism by autistic people themselves. In doing so, I follow a path opened by numerous scholars in critical autism studies and neurodiversity studies who have emphasised the importance of the autobiographical in autism research.[710]

Like all situated knowledges, autobiographical narratives are shaped by intersecting social positions of power and oppression along lines of, among others, gender, race, class, age, ability, nationality, and religion. In this subsection, I examine memoirs by two white, speaking autistic women living in the United States of America: *Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior* (2005) by Temple Grandin and her writing collaborator, Catherine Johnson, and *Songs of the Gorilla Nation: My Journey Through Autism* (2004) by Dawn Prince-Hughes.

This selection is justified by the direct focus on nonhuman animals in these texts. The features that bring these books together – publication date, country of residence, ethnicity, and so forth – constitute both strengths and limitations for this case study. On the one hand, these texts will help me describe forms of affective, epistemic, and ethico-political engagement by autistic people – particularly autistic women – with and for nonhuman animals. As best-sellers that have been largely studied in academic scholarship, these books have often been mobilised to formulate the now widespread assumption that autistic people form strong bonds with nonhuman animals.[711]

---

[709] See, for example, Sunaura Taylor, 'The Service Dog', in *Beasts of Burden: Animal and Disability Liberation*, New York and London: The New Press, 2017, pp. 105–6; Alan Santinele Martino and Sarah May Lindsay, 'Introduction: The Intersections of Critical Disability Studies and Critical Animal Studies', *Canadian Journal of Disability Studies*, vol. 9, no. 2 (2020), pp. 1–9; Kelly Oliver, 'Service Dogs: Between Animal Studies and Disability Studies', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, pp. 111–28, London and New York: Routledge, 2020.

[710] See, for example, Stenning, *Narrating the Many Autisms*; van der Palen, *A Cyborg Autobiography*.

[711] For example, Cary Wolfe mentions both Grandin and Prince-Hughes in *What is Posthumanism?* He explains that their autobiographical narratives have fuelled discussions at the intersection of animal studies and disability. See Cary Wolfe, 'Learning from Temple Grandin', *What is Posthumanism?* Minneapolis and London: University of Minnesota Press, 2010, p. 128. Both memoirs are also mentioned as classics by Joyce Davidson and Mick

When read together, however, they pave the way to more nuanced discussion. Indeed, by championing contrasting forms of animal politics, their authors allow me to complicate the notion of a natural affinity for animals in autistic women and move towards an ethical approach marked by non-innocence, which I develop in more epistemological terms in Chapter 5. On the other hand, precisely because of these books' fame, this selection fails to challenge the pervasive whiteness and Anglo-American origin of neurodiversity studies scholarship.[712] Fortunately, the genre of autistic autobiography continues to grow, and we can hope to learn more about the diverse forms of engagement with nonhuman animals by autistic people around the globe in the years to come.

Alongside elements and citations from Prince-Hughes's and Grandin's books, I also draw on theoretical contributions from crip animal studies, critical autism studies, and neurodiversity studies scholars, as well as empirical evidence from autism scientists. This combination of sources allows me to complicate a range of assumptions about autism and animality. This should not, however, suggest that autobiographical narratives are of lesser epistemic value than theoretical contributions or scientific evidence, particularly given the many biases that pervade the field of autism science. That said, I hope that bringing together these diverse sources will enable me to make nuanced arguments about the ontology, epistemology, and ethico-politics of human-animal relationships in the context of autism.

Affective engagement is arguably the primary analytic used to describe the relationship between autistic humans and nonhuman animals. Within the pathology paradigm and most clinical descriptions of autism, autistic people are assumed to lack empathy and to struggle to connect emotionally with others.[713] This assumption of deficit is also shaped by gendered expectations: autistic women experience 'social pressures to be more empathetic in accordance with gender norms while also being assumed to have less empathy because they are labeled as autistic',[714] a dynamic further complicated by racialisation.

However, in their autobiographical accounts, autistic people do not typically interpret this as a deficit in empathy. Instead, they describe a form of hyper-emotionality that can make connecting with others more taxing. Interactions with nonhuman animals, being generally less intense, are often easier for autistic people to navigate emotionally.[715] Studies have shown that

---

Smith. See Joyce Davidson and Mick Smith, 'Autistic Autobiographies and More-than-Human Emotional Geographies', *Environment and Planning D: Society and Space*, vol. 27 (2009), p. 898.

[712] Important contributions to the area of autistic autobiography by racialised autistics (some of whom are non-speaking), which I have consulted in preparation for this chapter, include: Naoki Higashida, *The Reason I Jump: The Inner Voice of a Thirteen-Year-Old Boy with Autism*, New York: Random House, 2013; Mukhopadhyay, *How Can I Talk*; Prahlad, *The Secret Life of a Black Aspie*.

[713] See Davidson and Mick, 'Autistic Autobiographies', p. 262; Jenny Bergenmar, Hanna Bertilsdotter-Rosqvist, and Ann-Sofie Lönngren, 'Autism and the Question of the Human', *Literature and Medicine*, vol. 33, no. 1 (2015), pp. 204–5.

[714] Monroe, 'Ableism, Speciesism', p. 92.

[715] Davidson and Smith, 'Autistic Autobiographies', p. 908.

autistic individuals frequently prefer interacting with nonhuman animals over other humans,[716] a tendency commonly framed by allistics as a form of autistic asociality.[717] In contrast, autistic people report '[c]lose connections with nonhuman animals',[718] which are frequently compared to 'the emotional depth and closeness of human friendships'.[719] Similarly, material artefacts and spaces are invested with emotional intensity by many autistic people, which prompts Novina Göhlsdorf to speak, in relation to Temple Grandin's hug machine, of a 'more-than-human sociality'.[720] As for Joyce Davidson and Mick Smith, they describe this alternative sociality as the source of 'autistic worlds' and 'more-than-human emotional geographies',[721] of which Mel Baggs's stimming in *In My Language* constitutes a prime example (see Chapter 6).

This broad hypothesis is confirmed by Berlin-based disabled artist and zine maker Lex Kartané, who offers an autoethnographical account of the autistic joy and shame involved in connecting with flesh-and-blood or plush-and-polyester animals, such as their dog Ragis, a survivor of animal testing, or their toy companions, who 'were never just things'.[722] Kartané immerses us in their atypical experience of multispecies relationality, where harmless companionship is met with stigma and bullying. In telling a tale of kinship in survival, Kartané makes a compelling case for a neurodivergent ethics of softness.

Scientific studies, such as the one by Taylor et al., also indicate that autistic people are more likely than their neurotypical peers to identify with nonhuman animals.[723] This observation is confirmed by autistic people themselves.[724] It may be explained both by the tendency of autistics to attribute mental states similar to their own to nonhuman animals[725] and by their recognition of autistic-like traits in these animals, such as sensory sensitivities[726] or atypical forms of sociality. Furthermore, some studies suggest that families with autistic members are more likely to live with pets than non-autistic families,[727] although other studies report the

[716] See Emily C. Taylor et al., 'Do Autistic Traits Predict Pro-Environmental Attitudes and Behaviors, and Climate Change Belief?', *Journal of Environmental Psychology*, vol. 76, art. 101648 (2021), p. 7.
[717] See, for example, Olga Solomon, '"But–He'll fall!": Children with Autism, Interspecies Intersubjectivity, and the Problem of "Being Social"', *Culture, Medicine, and Psychiatry: An International Journal of Cross-Cultural Health Research,* vol. 39, no. 2 (2015), pp. 323–44; Davidson and Smith, 'Autistic Autobiographies'.
[718] Monroe 'Ableism, Speciesism', p. 92.
[719] *Ibid*., p. 93
[720] Novina Göhlsdorf, '"The Magical Device": Temple Grandin's Hug Machine', in *Material Cultures of Psychiatry*, ed. Monika Ankele and Benoît Majerus, Bielefeld: transcript Verlag, 2020, p. 244.
[721] Davidson and Smith, 'Autistic Autobiographies', p. 900.
[722] Lex Kartané, 'Softness and Survival: An Autoethnography of Kinship, Care, and Ethodiverse Being', unpublished.
[723] Taylor et al., 'Autistic Traits'.
[724] See Davidson and Smith, 'Autistic Autobiographies', pp. 909–10; Monroe, 'Ableism, Speciesism', p. 93.
[725] Taylor et al., 'Autistic Traits', p. 7
[726] See Bergenmar, Bertilsdotter-Rosqvist, and Lönngren, 'Autism and the Question of the Human', p. 209, cited in Monroe, 'Ableism, Speciesism', p. 93.
[727] Taylor et al., 'Autistic Traits', p. 7.

opposite finding.[728] The latter is often attributed to the responsibilities and autonomy required in caring for an animal companion, which can be challenging for many autistic people.

On an epistemic level, the study conducted by Taylor et al. shows that autistic special interests focused on animals – like other special interests – enhance autistic people's well-being when they are pursued and fulfilled.[729] Interest in animals often motivates autistic people to live with a nonhuman companion or to pursue careers in fields which require scientific knowledge of animals. This is the case for both Temple Grandin and Dawn Prince-Hughes, whose career paths have led them to work in the animal industrial complex.

Finally, in terms of ethico-political engagement, it is not uncommon to hear autistic people report a heightened sense of justice and a low tolerance for injustice, traits often framed in naturalising and depoliticising terms. Later in this subsection, I argue for a non-innocent approach to the animal ethics and politics manifested by autistic people. For now, suffice it to note, following Taylor et al., that to the extent autistic people exhibit more atypical and less intense forms of engagement with other human beings, they are also less inclined to adhere closely to human social norms. The researchers further suggest that the strong ties between autistic humans and nonhuman animals may predict 'pro-environmental attitudes and behaviours',[730] potentially including pro-animal ones. Moreover, the marginalisation and dehumanisation experienced by autistic people, particularly those also affected by other forms of oppression, such as sexism, racism, classism, or ableism, likely fosters a distinctive form of empathy towards other marginalised populations, including nonhuman animals. This is further reinforced by an autistic tendency toward black-and-white thinking, where ethical dilemmas – such as whether to consume animal products – result in clear right or wrong positions.

These factors may help explain the greater propensity of autistic communities to oppose violent human practices toward nonhuman animals and, consequently, to adopt alternative lifestyles that are sometimes radical, such as veganism or antispeciesist activism. They might also explain the opposite trend of autistic people (especially, but not exclusively, white men) going down the 'alt-right pipeline'. There is still no concrete empirical research setting out to examine whether veganism is more, less, or equally common in autistic communities compared with the general population. This gap may be due to the dominance of the pathology paradigm in autism science, where food diets are more often studied as potential causes of autism rather than as ethical choices made by political autistic subjects. Nevertheless, the autistic community has begun to explore this issue, developing what I suggest we call a form of *neurodivergent*

[728] See, for example, Gray Atherton et al., '"They Ask no Questions and Pass no Criticism"': A Mixed-Methods Study Exploring Pet Ownership in Autism', *Journal of Autism and Developmental Disorders*, vol. 53 (2023), pp. 3280–94.
[729] Taylor et al., 'Autistic Traits'.
[730] *Ibid*., p. 8.

veganism.[731] Such a perspective, as we will see, is irreducible to an alleged autistic compassion for animals, as evidenced by the case of Temple Grandin, who simultaneously expressed her wish that humans had 'evolved to be plant eaters, so we wouldn't have to kill other animals for food'[732] and shared that 'I don't see the human race converting to vegetarianism anytime soon'. A livestock engineer, Grandin remains committed to an anti-vegan politics and neurodivergent speciesism.

a) Autistic Women and Nonhuman Animals: Temple Grandin's and Dawn Prince-Hughes's Memoirs

Temple Grandin is an American autistic woman who became widely known through public speaking engagements and a series of books in which she shares stories about her experience as an autistic person and her work with farmed animals. In *Animals in Translation*, she recounts moments from her youth spent close to animals, such as when she fell in love with horses while attending a boarding school for 'gifted children with emotional problems'.[733] Grandin recalls that the school's horses 'were pretty […] but emotionally they were a mess'.[734] They had been purchased at a reduced price due to their 'gigantic behavior problems'.[735] These parallels between the human children and the horses led the students to develop strong bonds with their nonhuman companions. Grandin's affinity with animals deepened during a visit to her aunt's ranch in Arizona. She recounts how that summer, the 'animals saved [her]'.[736]

At the ranch, Grandin discovered squeeze chutes, apparatuses used by veterinarians to tranquilise cows and facilitate veterinary care. By restraining the cows in place with an air compressor attached to a V-shaped mechanism, the chutes applied deep pressure to the bovine bodies. Rather than becoming frightened, the cows visibly relaxed, Grandin remembers.[737] This made intuitive sense to the young Temple Grandin: massages work in much the same way. She realised that, while deep pressure is good for everyone, her autistic bodymind definitely 'needed a squeeze chute of [its] own'.[738] Returning to school that autumn, the young girl built a chute

[731] See, for example, HeyASD Editorial Team, 'Some of Us Are Vegan. Not to Be Fixed, Just to Be Ourselves', heyasd, n.d., accessed 12 March 2026. https://www.heyasd.com/blogs/autism/vegan-and-vegetarian-diets-for-autism.
[732] Temple Grandin and Catherine Johnson, *Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior*, New York: Scribner, 2005, p. 179.
[733] *Ibid.*, p. 1.
[734] *Ibid.*, p. 2.
[735] *Ibid.*
[736] *Ibid.*, p. 4.
[737] *Ibid.*
[738] *Ibid.*, p. 5.

with the help of a teacher. The machine 'worked beautifully',[739] and Grandin reports that she continues to use it to this day.

This animal epiphany – a concept I discuss in Chapter 6 – led Grandin to pursue a career in animal sciences, developing deep ethological and engineering knowledge about cattle and cattle farming. She trained as an animal scientist and became a consultant and inventor for the animal industrial complex. Grandin developed innovative slaughterhouse designs, whose use has been generalised across the United States of America and, subsequently, around the world. Yet her career is unlike anyone else's: her ground-breaking discoveries are fuelled – or so she explains – by a form of autistic intuition, a sense that her autistic embodiment enabled her to understand nonhuman animals better than anyone. Indeed, Grandin claims that her sensory sensitivities and her aversion to novelty help her better comprehend how farmed animals respond to the distressing environment of the slaughterhouse.

This intuition, and Grandin's alleged gift for 'translat[ing] "animal talk" into English'[740] is not only the result of her years of training but also of her autistic traits. Grandin identifies a range of similarities between autistic humans and nonhuman animals, such as the tendency to think in pictures rather than words, heightened sensitivity to details and sensory stimuli, and a disposition to retain negative memories, such as fear, for longer periods. She suggests that these traits may be explained by the absence of functional frontal lobes in autistic people and by the increased use of what she terms the 'animal brain' compared to the 'human brain'.

With the Intense World Theory of autism, discussed in Chapter 1, we learned that the autistic tendency to retain negative memories longer than allistics might be attributable to a form of neurological hyperprocessing, not to deficits in the frontal lobe. While Grandin's description of autistic traits may resonate with many autistics, the neurological basis she posits for these experiences is not particularly reliable. Her neurobiological claims have, indeed, been criticised by some neuroscientists.[741] Whether proven or not, it is this purported biological similarity that Grandin uses as the foundation for her claim that autistic people are closer to animals than (to) allistics. She explains that '[a]utism is a kind of way station on the road from animals to humans',[742] which may account for her assertion that '[a]utistic people can think the way animals think'[743] and thus develop the translation abilities exemplified by Grandin herself.

These neurocognitive traits, supposedly shared by autistic humans and nonhuman animals, are often looked down upon by able-bodied, neurotypical humans. This point is

[739] *Ibid*.
[740] *Ibid*., p. 7.
[741] See, for example, Giorgio Vallortigara et al., 'Are Animals Autistic Savants?', *Public Library of Science Biology*, vol. 6, no. 2 (2008).
[742] Grandin and Johnson, *Animals in Translation*, p. 6.
[743] *Ibid*.

emphasised by Donna Haraway and Cary Wolfe in their respective commentaries on Grandin's work. For example, Cary Wolfe laments neurotypicals' 'too-rapid assimilation of the questions of subjectivity, consciousness, and cognition to the question of language ability'.[744] According to Haraway, a reader of Wolfe, this assimilation – rooted in 'the premises of liberal humanism and its language-sated version of epistemology, ontology, and ethics' – denies non-speaking autistic humans and nonhuman animals any form of 'inner life'.[745] This is a clear example of bestialisation, a rhetorical apparatus of speciesist-racist-neuronormative oppression which, by assimilating neurodivergence and non-white races with beastness (whether as *bêtise* or *bestialité*), simultaneously dehumanises neurodivergent people and racialised people and negatively animalises nonhuman animals.

On the contrary, Grandin's argument that autistics – like nonhuman animals – think in pictures rather than words allows her to break, at least in part, with the Cartesian conception of the subject. It evokes the feminist move from the phallogocentrism of language and visuality to the feminine or feminist value of touch.[746] In both cases, the primacy of one sense over the other is imbued with sexist, ableist, and ultimately speciesist undertones, and the shift towards another modality of sensing breaks with the humanist logic.

At the same time, the pairing of autistics with nonhuman animals has led allistic people not only to refer to autistic children as 'wild', as we will find in Prince-Hughes's memoir, but also to retrospectively interpret the historical figure of the 'feral child' as a case of autism. Critical of liberal humanism's tendency to oppose 'the general animal sensorium [… with] the opposed register of the technical and mechanical',[747] Wolfe concedes, alongside Grandin, that 'visuality may be animal, it may be technical, but it is *anything but* "human"'.[748] While Wolfe's argument is more philosophically elaborate than Grandin's, it does not call into question the continuum that she traces from neurotypical humans to nonhuman animals via autistic humans.

There is indeed a notable fascination with Grandin's descriptions of autism within the academic fields of animal studies and posthumanism. This is true for Haraway and Wolfe, both American, but Grandin's narratives also appear in European scholarship. For example, Belgian philosophical ethologist Vinciane Despret references Grandin's story throughout *What Would Animals Say If We Asked the Right Questions?*[749] She describes the autistic scientist in highly laudatory terms, highlighting her status as 'the most recognized American scientist in the area

[744] Wolfe, 'Learning from Temple Grandin', p. 129.
[745] Donna J. Haraway, *When Species Meet*, Minneapolis and London: University of Minnesota Press, 2008, p. 371.
[746] See, for example, Luce Irigaray, *Speculum of the Other Woman*, Ithaca: Cornell University Press, 1985; Luce Irigaray, *The Mediation of Touch*, Cham: Palgrave Macmillan, 2024; Hélène Cixous, 'Savoir', in Hélène Cixous and Jacques Derrida, *Veils*, Stanford: Stanford University Press, 2004, pp. 1–16.
[747] Wolfe, 'Learning from Temple Grandin', pp. 130–1.
[748] *Ibid*., p. 131. Emphasis in original.
[749] See Despret, *What Would Animals Say*, pp. 47–51, 108, 219, 228.

of livestock breeding' and as the engineer behind 'the most ingenious facilities and handling systems for animals'.[750] Despret notes that American breeders, compared to breeders from other countries, were traditionally less accustomed to properly connecting with 'their' animals, which made Grandin's intervention particularly significant.

But Despret is aware of the complex epistemic status of Grandin's claims, which are difficult to substantiate. She acknowledges that Grandin's assertion of intuitively understanding animals due to her autism 'res[t] on something like a wager':[751]

> Are animals 'really' like autistic people? Grandin believes so, and with a certainty that is really difficult to go along with for those who are neither animals nor autistic. But the regime of truth that accompanies this affirmation inscribes itself within the regime of the fabulatory wager; it is a pragmatic gesture. In acting *as if* she were dealing with beings who, like her, see the world in a certain way, have a genius for detail and a talent for perception, she happens to get from these beings what constituted the object of the wager: better attunement to the intentions of the breeders and of the animals.[752]

According to Despret, Grandin not only teaches us valuable lessons about farmed animals, breeders, and autistic people, but she also challenges humans' anthropocentric views on animals. By highlighting animals' talent for perceiving details in their environments, Grandin demonstrates that '[a]nimals are geniuses'.[753] In doing so, Despret argues, she 'offers a lovely antidote to the thesis of human exception'.[754] Commonly treated as if they were stupid, nonhuman animals and autistic humans emerge from Grandin's narrative with their honour restored. Rather than being defined by stupidity [*bêtise*] – another form that bestialisation takes – they are recognised for their unequalled genius.[755]

Moreover, the Belgian ethologist explains that Grandin's work has contributed to animal welfare in significant ways: 'there is less violence on farms because of her work'.[756] However, in her recent book, *Humanimaux*, Marta Segarra raises ethical concerns about Grandin's contributions to livestock engineering. Like her, I agree that 'when Temple Grandin states that, in her ideal slaughterhouse, cattle "voluntarily" enter the conveyor belts to be led to a "humane" death, shiver runs down your spine'.[757] Still, Segarra recognises in Grandin an ability to foster pro-animal sentiments in her readers: 'Temple Grandin […] asserts that people need to touch

---

[750] *Ibid*., p. 47.
[751] *Ibid*., p. 48.
[752] *Ibid*., p. 50. Emphasis in original.
[753] *Ibid*.
[754] *Ibid*.
[755] *Ibid*., p. 51.
[756] *Ibid*.
[757] Marta Segarra, *Humanimaux. Où placer les frontières de l'humain ?* Paris: Hermann, 2024, p. 240, my translation. Haraway makes a similar observation when she describes Grandin's designs as 'less terrible industrial slaughter systems'. See Haraway, *When Species Meet*, p. 319.

animals in order to connect with them, and that this type of contact leads to empathy and compassion. Numerous experiments with autistic people and, in a completely different context, prisoners convicted of violent crimes, seem to support this intuition.'[758]

The fascination that Grandin's work has aroused in animal studies is understandable: her claims help us complicate our understanding of human-animal relations. They introduced the world not only to the ways autistic people relate to nonhuman animals, but also, just as importantly, to autism itself. Indeed, Grandin's writings are part of the first autobiographical narratives by autistic people to gain widespread recognition in the United States of America and internationally.[759] Grandin is also one of the first adults to publicly come out as autistic. Her work positioned her as a representative not only for nonhuman animals – as a self-proclaimed translator – but also for autistic people. For many years, numerous autistic individuals have seen in Grandin's public speaking a compelling representation of their community.[760]

In recent years, particularly within activist and scholarly work at the intersection of critical disability studies and critical animal studies, Grandin's privileged position has been heavily questioned. She has largely fallen from grace and is now widely criticised for the harm her work has caused to both her community and nonhuman animals. Beyond her pseudoscientific claims about autistic and animal neurology, Grandin's arguments rely on a series of problematic assumptions, which I aim to interrogate here. In addition to synthesising these discussions, my intent is to offer a neurodiversity-specific critique that runs parallel to the disability-centric discussions already available.

While Grandin's zootechnical work is grounded in an affective, epistemic, and ethical commitment – ultimately to animal welfare and a sense of proximity with nonhuman animals – it is even more deeply rooted in the essentialising idea that autistic people possess a natural ability to understand nonhuman experience. Grandin herself acknowledges that it was not until she was in her forties that she realised her closeness to animals as an autistic person gave her a particular advantage in knowledge production. This admission suggests that it was her prolonged exposure to a common, medicalised and pathologised view of autism that led her to

[758] Segarra, *Humanimaux*, p. 79, my translation.
[759] In the foreword to Grandin's book, *Thinking in Pictures*, Oliver Sacks contends that "there had never before been an 'inside narrative' of autism' before Grandin's. See Oliver Sacks, 'Foreword', in Temple Grandin, *Thinking in Pictures and Other Reports from my Life with Autism,* New York: Random House, 1995, p. 11. This claim should probably be nuanced by saying that, instead, no 'inside narrative' of autism had ever been *taken seriously* by the general public before.
[760] This view has been disseminated by autistic and non-autistic specialists of autism, such as US-American journalist Steve Silberman, who engaged with Grandin's life and work thoroughly and positively in his writings, US-American psychologist Bernard Rimland, who wrote the foreword to Grandin's first book, or British neurologist Oliver Sacks, who dedicates the eponymous essay of his book, *An Anthropologist on Mars*, to Grandin's story. See Silberman, *NeuroTribes*; Temple Grandin and Margaret M. Scariano, *Emergence: Labeled Autistic. A True Story*, New York and Boston: Grand Central Publishing, 1996; Sacks, *An Anthropologist on Mars*. Wolfe usefully reports that 'Grandin's story was first brought to national attention by Oliver Sacks […] in 1994' with an early version of his essay. See Wolfe, 'Learning from Temple Grandin', p. 128.

formulate this hypothesis. Indeed, the neurodiversity movement emerged in the 1990s, a decade after Grandin completed her doctoral studies in animal science. She could not have anticipated the neurodiversity movement, and her work is therefore largely shaped by medicalised, pathologising, and reductionist perspectives on autism.[761]

While it would be anachronistic and epistemically unfair to expect Grandin's early public positions to align with neurodiversity-affirming views, her later publications, among which figures *Animals in Translation*, do not diverge from these earlier stances. This continuity has been noted by scholars in crip animal studies. Vasile and Debs Stănescu, for instance, read Grandin's claim to translate the experiences of autistic humans and nonhuman animals for the general public as a form of exoticisation.[762] They show that, by positioning autistic people along a continuum from nonhuman animals to neurotypical humans, Grandin dehumanises them. This exoticisation relies not only on a typically bestialising narrative – where pathologising and reductionist descriptions animalise autistic people – but also on the figure of the supercrip. Supercrip narratives depict autistic people (or disabled people in general) as possessing superhuman powers, sometimes in almost magical ways. As Stănescu and Stănescu note, this trope is common in autism discourse. While it may appear paradoxical – for ableism usually positions disabled people as *not good enough* – the supercrip narrative simultaneously elevates them as extraordinarily skilled.[763]

In Grandin's narrative, this manifests as an alleged ability to understand animals, an ability that borders on telepathy.[764] The problem with supercrip rhetoric is that it exoticises the autistic subject Grandin represents: her extraordinary skills lead to a forced assimilation to the other-than-human. This is crystallised in the figure of the extraterrestrial, a metaphor Grandin has claimed for herself, giving rise to Sacks's famous essay *An Anthropologist on Mars*. Through this figuration, autistic people are denied the choice to identify as (fully or properly) human, and their other-than-humanity, far from serving as an empowering and subversive

[761] A similar claim was made by Vittoria Lion, who notes: '[Grandin] […] remark[s] that she would never have developed a successful career had she been allowed to engage freely in autistic self-stimulating (or "stimming") behaviors. Grandin's consistent use of productivity according to capitalist standards as the measure of a worthwhile life reveals that her views of disability and animality are far from value-neutral.' See Vittoria Lion 'Disrupting Temple Grandin: Resisting a "Humane" Face for Autistic and Animal Oppression', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, London and New York: Routledge, 2020, p. 187.

[762] Vasile Stănescu and Debs Stănescu, 'Lost in Translation: Temple Grandin, Humane Meat, and the Myth of Consent', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, London and New York: Routledge, 2020, p. 162.

[763] The figure of the supercrip could perhaps be compared to other forms of individual exceptionalism in minoritised groups, for instance, cases where women portray themselves in masculine ways to differentiate themselves from other women. Could it be that, by portraying herself as uniquely talented, Grandin similarly attempts to differentiate herself from less exceptional autistics?

[764] Stănescu and Stănescu, 'Lost in Translation', p. 167.

claim, comes to fuel fascination among the general public, including in animal studies scholarship.[765]

The farmed animals are also involved in this rhetorical apparatus. Grandin positions not only herself, but also the animals she claims to speak for, within her supercrip figuration. She compares them to 'autistic genius[es]'[766] or 'autistic savants',[767] which is a surprising claim. This argument rests on Grandin's pseudo-neurological hypothesis, according to which cognition in farmed animals and autistic humans relies on the 'animal brain' rather than the 'human brain' (specifically, the frontal lobe).[768] While there may be value in reclaiming animality as a core determinant of human experience (for both autistics and allistics), Grandin's approach ultimately proves harmful to all involved.

For this reason, Stănescu and Stănescu argue that Grandin perpetuates supercrip rhetoric. By claiming to translate autistic people and nonhuman animals for the general public, she effectively speaks *for* them and silences their own voices. She constructs a monolithic, essentialised understanding of autism and animality, positioning herself as the representative of communities that neither needed nor requested her intervention in the first place. Stănescu and Stănescu characterise this as a form of rhetorical and political violence.[769] Indeed, by substituting her intuitive understanding of animals for more empirical evidence, Grandin acquires the privileged position of being a spokesperson for nonhuman animals. The obvious fact that her insights stem from her personal opinion on animal welfare is backgrounded in favour of an image of neutral expertise. Ultimately, Grandin uses her insights to justify and *humanise* violent practices, while simultaneously contributing to the *dehumanisation* of autistics.

In doing so, Grandin positions herself as a spokesperson whose intuitions are to be regarded as reliable knowledge. While Despret is correct to describe a form of speculative and performative wager in Grandin's work, the effects of this wager are not unequivocally positive. On the contrary, we may follow the Stănescus in observing that Grandin's discourse ultimately reassures meat eaters by implying that humans have a right to exploit or kill nonhuman animals as long as they don't suffer too much.[770] Like Harkness's book, it endorses a form of neurodivergent speciesism; worse, it is directly complicit with the violent practices of animal-industrial capitalism. This assessment is corroborated by Hannah Monroe, who characterises Grandin's bond with nonhuman animals as 'harmful empathy'.[771]

---

[765] This claim, made by Vittoria Lion, serves as an inspiration for my argument.
[766] Grandin and Johnson, *Animals in Translation*, p. 298.
[767] *Ibid*., p. 51.
[768] Stănescu and Stănescu, 'Lost in Translation', p. 163.
[769] *Ibid*., p. 162.
[770] *Ibid*., p. 162.
[771] Monroe, 'Ableism, Speciesism', p. 98.

Writing in the same anthology as the Stănescus, Vittoria Lion argues that Grandin's 'persona functions incredibly effectively as a "humane" façade for capitalist violence toward both autistic people and animals'.[772] Lion criticises animal studies scholars like Wolfe and Haraway for celebrating Grandin's work in ways she deems 'apolitical' and 'superficial'.[773] Through a detailed analysis of Grandin's writings, Lion highlights contradictions between Wolfe and Haraway's respective philosophies and Grandin's arguments, suggesting a failure to engage with her work in truly critical ways. However, the sharpness of Lion's criticism should perhaps be nuanced by the fact that both Wolfe and Haraway wrote about Grandin in the 2000s, before the neurodiversity movement and (critical) neurodiversity had fully developed, and by the observation that they develop new arguments based on Grandin's work. In addition, it is likely missing the conceptual coherence of Wolfe and Haraway's positions, which align with posthumanist philosophy, when she laments their superficiality. Nevertheless, we might agree with Lion's argument for a different kind of political orientation, rooted, for example, in '[a] truly critical animal studies and a truly critical disability studies'.[774] Central to this endeavour, she stresses, is the need to amplify the voices of autistic and animal rights activists, whose critiques of Grandin go back to the 1990s.[775]

**

Dawn Prince-Hughes is an anthropologist, ethologist, and primatologist. In *Songs of the Gorilla Nation*, she recounts how regularly visiting gorillas at the Seattle Zoo taught her 'how to be civilized'.[776] As a then-undiagnosed autistic woman feeling trapped in a world she did not understand, Prince-Hughes felt that 'these gorillas, so sensitive and so trapped, were mirrors for [her] soul'.[777] 'Seen as ugly, as caricatures of a fully formed humanity',[778] the gorillas reminded Prince-Hughes of her own condition as an autistic person. In the book, she draws a significant parallel between the confinement of animals and that of Mad people, one rooted in intersecting forms of oppressions: 'This is why gorillas are captive. This is why crazy people

[772] Lion, 'Disrupting Temple Grandin', p. 182.
[773] *Ibid*., p. 184.
[774] *Ibid*., p. 185.
[775] See Jim Sinclair, 'If You Love Something, You Don't Kill It', 1998. https://web.archive.org/web/20080330071836/web.syr.edu/~jisincla/killing.htm; Lydia X. Z. Brown, 'Critiquing Temple Grandin', *Autistic Hoya*, 10 August 2013, accessed 2 November 2025. www.autistichoya.com/2013/08/critiquing-temple-grandin.html, cited in Lion, 'Disrupting Temple Grandin'. See also Sunaura Taylor's critique of the 'humane meat' rhetoric, which she describes as an 'oxymoron'. See Sunaura Taylor, *Beasts of Burden: Animal and Disability Liberation*, New York and London: The New Press, 2017, p. 177.
[776] Dawn Prince-Hughes, *Songs of the Gorilla Nation: My Journey Through Autism*, New York: Three Rivers Press, 2004, p. 1. This echoes the title of one of Temple Grandin's books, *Animals Make Us Human*. See Temple Grandin and Catherine Johnson, *Animals Make Us Human: Creating the Best Life for Animals*, Boston and New York: Mariner Books, 2010.
[777] Prince-Hughes, *Songs of the Gorilla Nation*, p. 3.
[778] *Ibid*.

are captive. We are the animals who don't speak the language, look the looks, move in the right ways. Captivity is for observing. Sit. Ignore. Endure. Remain.'[779] On an intimate level, Prince-Hughes relates to the treatment of the gorillas, not only as an autistic person but also as a queer woman. Contrary to Grandin's claims, her affective proximity to animals is not derived from a natural affinity wired into her brain, but from a political affinity grounded in shared oppression.

Prince-Hughes then decided to spend regular time observing the gorillas. Through these visits, she learned not only about the ways gorillas navigate their confinement, but also about their 'spiritual', 'aesthetic' and 'educational need[s]'.[780] Among the lessons she received from the gorilla nation, she highlights 'the value and beauty of ritual',[781] which speaks to her own autistic tendencies, which her family disapproved of. In characteristically autistic fashion, Prince-Hughes recounts how her 'need for repetition' manifested in following the same routes, visiting the same places, and practising the same activities.[782] Prince-Hughes also observed the prevalence of self-stimulatory behaviours among gorillas, likely linked to their captivity, which closely resembled her own autistic behaviours. She identifies several similarities between captive gorillas and autistic humans, including 'the need for preservation of sameness and the needs for space, hiding, drawing inward, and exploding outward'.[783] She further notes 'a difficulty with the human race, sensitivities to the world around them, and stereotyping in the face of the soullessness all around'.[784]

Prince-Hughes reports: 'My mother would tell me I was wild',[785] and she took pleasure in 'retreat[ing] deeper and deeper into nature'.[786] At that point, she says: 'I find that I am only part "human" and very much something altogether different',[787] coming to think of herself 'both as a person and as a primate'.[788] Beyond the similarities, she observes that gorillas, despite their captivity and their way of 'living out of context'[789] – deprived of a meaningful environment – had developed abilities still inaccessible to her: remaining open, empathetic, and communicative with each other, as well as with the humans on whom they depended. She recounts how the gorillas had found ways to 'feel whole' and 'see value in others' desires for safety and happiness' or, in other words, to establish a 'reciprocity of feeling and favor'.[790]

---

[779] *Ibid*., p. 95.
[780] *Ibid*., p. 19.
[781] *Ibid*.
[782] *Ibid*.
[783] *Ibid*., p. 41.
[784] *Ibid*. Sensitivity to the world around and the search for soulfulness, so to speak, are key to the concept of neurohologrаphy developed by Prince-Hughes, which I examine in Chapter 5.
[785] *Ibid*., p. 40.
[786] *Ibid*., p. 37.
[787] *Ibid*., p. 85.
[788] *Ibid*., p. 96. Nowadays, it is clear that, in many ways, nonhuman animals qualify for personhood. Prince-Hughes's word choice could easily be replaced by 'human' here.
[789] *Ibid*., p. 120.
[790] *Ibid*.

Prince-Hughes also explains that gorillas, despite being 'socially awkward with most humans [...] seemed more comfortable around women'.[791] This observation supports the hypothesis of a stronger affective bond between autistic women and nonhuman animals. Importantly, this bond is not the result of biological proximity or some innate softness or kindness in women, but likely reflects the gendered politics of speciesist violence against animals in zoos. Prince-Hughes corroborates this general point through her personal experience with the gorillas, which she links to her autism. She describes the difficulties she faced in confiding in other humans, whom she struggled to trust and understand.[792] While she rarely felt the need to be comforted by her human peers, after spending extended time with the gorillas at the Seattle Zoo, Prince-Hughes experienced something new: 'I began to feel a growing need for the presence of another, someone with whom I could share the mundane and the heartbreaking'.[793]

During a moment of personal vulnerability, Prince-Hughes encounters Congo, a gorilla who senses her distress and offers her a shoulder to cry on from behind the glass panel.[794] In that instant, she feels

> inspired […] to open up and extend my heart to the world around me. I would no longer allow the great permeability of my spirit to lead me to seek ever smaller shelters [and] would let myself bleed out into the world and let it into me. I would *be* among people, no matter what the pain.[795]

Through her gorilla kin, the autistic human learns a lesson about pain, care, and sacrifice and decides to embrace both her autism and her animality. Equally important, she commits herself to a life of scientific and political engagement for the gorillas, hoping to 'turn my prison [and their own] into a temple'.[796]

Prince-Hughes's narrative is a compelling example of the affective bond that many autistic people – including autistic women – tend to share with nonhuman animals. It illustrates not only the benefits of such interactions, and the lessons animals can teach autistic people, but also the potential for coalition-building and allyship with nonhuman animals. Set within the politically charged context of the zoo, her story recounts captivity and resilience, opening space for discussions of neuronormative and speciesist violence. Prince-Hughes's work begins at the Seattle Zoo, where she was eventually employed, enjoying proximity to the gorillas while critically reflecting on her role as their keeper and the animals' condition of confinement.

---

[791] *Ibid*., p. 128.
[792] *Ibid*.
[793] *Ibid*., p. 129.
[794] *Ibid*.
[795] *Ibid*., p. 130
[796] *Ibid*.

Guided by her abolitionist views, she developed her own 'way of being a scientist',[797] aiming to improve the welfare of her gorilla kin. Over time, Prince-Hughes's contribution has extended into academia and autistic community-building, particularly through the Cultural Autism Studies at Yale (CASY) community, where she has repeatedly given a platform for autistic people interested in discussing the intersection of neurodiversity and animality, like myself.[798]

At the same time, Prince-Hughes's memoir is a reflection of its time. It relies at times on naturalising tropes regarding autism, gender roles, and animality. Prince-Hughes recounts learning about gender roles and cross-gender relations from the gorillas, interpreting Congo's blank-faced protectiveness as typical male behaviour and noting that it helped her 'understand human men in a way that I never had before',[799] an event she links to a reduced fear of men in her life. Prince-Hughes further relates these masculine traits to her own autistic behaviour, describing a 'male core' shaped by an 'archaic animal nature'.[800] The thesis that autistic behaviour reflects an 'extreme male brain', popularised by autism scientist Simon Baron-Cohen in the early 2000s,[801] has since been extensively critiqued.[802] Given that *Songs of the Gorilla Nation* was published in 2004, it is plausible that Prince-Hughes's account was influenced by this theory, though it is unlikely she would endorse such claims today. Reading this passage now underscores how autism has historically been linked to masculinity and animality, even in women, and highlights the persistent gendered framing of animality. It also evidences the continued relevance of feminist approaches in discussions of autism and human-animal relations alike.

A moving testimony, Dawn Prince-Hughes's autobiographical narrative allows us to nuance the notion of a natural affinity for nonhuman animals in autistic people, a theme also present in Temple Grandin's work. Building on this, I draw from feminist approaches to multispecies ethics and autistic embodiment to outline what I call an ethics of non-innocence.

---

[797] *Ibid*.
[798] 'CASY (Cultural Autism Studies at Yale) is a non-hierarchical, autistic/neuroholographic led consortium of global collaborators dedicated to the exploration, generation, documentation and dissemination of [autistic] culture.' See Cultural Autism Studies at Yale, 'Home', n.d., accessed 9 January 2026. https://culturalautismstudiesatyale.space.
[799] Prince-Hughes, *Songs of the Gorilla Nation*, p. 130.
[800] *Ibid*.
[801] See Baron-Cohen, 'The Extreme Male Brain Theory of Autism'.
[802] Some of the main counterarguments include the emphasis on the gender bias of the diagnostic traits and tools for autism, which make for a gender gap in autism science, which is unlikely to correspond to the reality of autism.

b) From Natural Affinity with Animals to an Ethics of Non-Innocence

Gender studies, particularly within ecofeminist and posthumanist scholarship, has long debated the status of the hypothesis that women have a special relationship with nature. Some scholars have sought to assert this closeness as a fundamental characteristic of femininity while others have critiqued the essentialism of this claim, emphasising instead the historical, contingent, and often constrained nature of this connection.[803] My own perspective is more indebted to the latter position. This is not to deny that feminine or feminist forms of engagement with nature and nonhuman animals exist, but rather to highlight the risks of naturalising and homogenising women's experience. Naturalisation has historically underpinned patriarchal and racist domination.[804] For instance, these forms of domination have alternately relied on the presumed biological fragility of white women and the supposed animalistic robustness of Black women. In both cases, notions of bodily availability for predation and colonisation mirror the exploitation of nonhuman animals and Indigenous lands. In other contexts, women are assigned a mysterious and captivating nature, rendering them objects of a new kind of feminine mystique.

Donna Haraway, a feminist theorist of human-animal relations, uses the figure of innocence to critique identity-based and essentialist theories that too readily accept the association of women with nature.[805] By portraying women (or, in this case, autistic women) as inherently pure and innocent, such theories offer a reductive view of women's experiences and obscure the forms of violence that can occur in their interactions with nonhuman animals. Fundamentally anti-essentialist, Haraway's work urges us instead to *stay with the trouble* of non-innocence: in this case, to acknowledge that autistic women's engagement with nonhuman animals is neither natural nor inherently moral or progressive.

Raised Catholic, Haraway keeps an open eye for the religious tropes embedded in Western philosophy, including those present in so-called 'progressive' or emancipatory thinking. By playing with these figurations, she seeks both to reveal their continued influence and to offer subversive reinterpretations. This is the case with the figure of innocence, which comes from the biblical story of the Garden of Eden. In Christian theology, humans were

---

[803] These two positions are represented, respectively, by Starhawk, Vandana Shiva, and Susan Griffin, on the one hand, and Donna Haraway, Val Plumwood, and Catriona Mortimer-Sandilands, on the other. See Starhawk, *Spiral Dance: A Rebirth of the Ancient Religion of the Great Goddess*, San Francisco: Harper & Row, 1979; Vandana Shiva, *Staying Alive: Women, Ecology and Development*, London: Zed Books, 1989; Susan Griffin, *Woman and Nature: The Roaring Inside Her*, New York: Harper & Row, 1989; Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature*, New York: Routledge, 1991; Plumwood, *Feminism and the Mastery of Nature*; Catriona Mortimer-Sandilands, *The Good-Natured Feminist: Ecofeminism and the Quest for Democracy*, Minneapolis and London: University of Minnesota Press, 1999.

[804] See, for example, Simone de Beauvoir, *The Second Sex*, New York, Alfred A. Knopf, 1953; Colette Guillaumin, *Racism, Sexism, Power and Ideology*, London and New York: Routledge, 1995.

[805] See, for example, Haraway, *Simians, Cyborgs, and Women*.

created innocent by God, yet untainted by corruption. However, by trusting the serpent and eating the forbidden fruit, Eve committed the original sin. She precipitated the Fall and condemned humankind to labour and suffering on Earth.

Haraway argues that much of contemporary art, science, and politics inherits this religious trope of innocence, perpetually seeking an original wholeness and unity in a golden age devoid of language, writing, or technology. The figure of innocence has indeed shaped feminist, socialist, and ecological politics – including ecofeminism – which have sometimes been tempted to renounce technology to return to femininity and/as nature.[806] In 'A Cyborg Manifesto', Haraway resisted the political gesture performed by her ecofeminist peers in the Goddess movement, who sought to revalue the devalued pole of the gender binary by reclaiming the divine feminine. Haraway identified in this movement a risk of naturalising feminine traits, such as sentimentalism, which has historically been mobilised against feminist campaigns for animal liberation. Rather than attempting to reverse the dualism or advocating that women assimilate into the masculine order, Haraway urged us to reject the man/woman and culture/nature dualisms inherited from Christian theology.

Hoping to break from this myth of origins – just as she renounced the religious lifepath she had initially considered[807] – Haraway's work instead emphasises 'partiality, irony, intimacy, and perversity. It is oppositional, utopian, and completely without innocence'.[808] In doing so, she resists naturalistic representations that naïvely assume the homogeneity and essentiality of categories such as 'women', 'nature', or, I would add, 'autism' and 'animality'. Haraway's work constantly historicises the construction of these categories within Western culture and technoscience, alternating between deconstructive readings and subversive reconfigurations. By employing the term 'non-innocence', which she uses extensively in *Simians, Cyborgs, and Women*, and throughout her work to this day, Haraway does not seek to affirm the theological notion that humans on Earth are inherently guilty. Rather, she aims to resist the eternal search for innocence by revealing its theological nature. In doing so, she teaches us to forsake innocence and beware of political practices grounded in identity and purity, privileging instead queer-like politics animated by impurity, oddness, difference, and inappropriate(d)ness.

By borrowing Haraway's figure of non-innocence throughout this thesis, my intention is to bring her feminist wisdom into dialogue with neurodiversity studies and the neurodiversity movement. From Singer's *biological truisms* to Grandin's *intuitive understanding*, via

---

[806] See Donna J. Haraway, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century', in *Simians, Cyborgs, and Women: The Reinvention of Nature*, New York: Routledge, 1991, p. 157.
[807] See Donna J. Haraway, *How Like a Leaf: An Interview with Thyrza Nichols Goodeve*, New York and London: Routledge, 2000, p. 9.
[808] Haraway, *Simians, Cyborgs, and Women*, p. 151.

Harkness's *neurodivergence by nature*, the neurodiversity movement's and neurodiversity studies' engagement with the life sciences, nature, and animals has repeatedly been haunted by the temptation of innocence. This is especially risky for autistic women, who are routinely described as more innocent than non-autistic women and autistic men alike. Such figuration of innocence rests on a patriarchal imaginary that perpetuates violence, particularly by amplifying what Cara-Julie Kather calls 'a distinctly masculine interest'[809] in women perceived as innocent. Innocence here is construed not only as a state of being untouched – especially by other men – but also as a condition of vulnerability, one that renders the subject seemingly unable to touch back or resist.[810]

In an essay-poem to be published in 2026, Kather highlights that the notion of autistic women as innocent – whether because they take things literally or appear unaware of social conventions – feeds into neurotypical-masculine 'fantasies of violating innocence',[811] and associated forms of sexual violence. Yet autistic-woman-beings, as Kather calls them, were never innocent; instead, they have always been aware of what it means to touch and be touched, to form authentic connections with the world around them.

Paradoxically, just as in the biblical story, women in patriarchal societies are always deemed guilty. While autistic women are largely excluded from this trope (and often, from femininity), their bonds with nonhuman animals often raise suspicion. More generally, 'neurotypical society is suspicious of and threatened by the special relationship autists have with nonhuman animals'.[812] These bonds are frequently pathologised: the figure of the 'crazy cat lady', for example, exemplifies the entanglement of speciesism, neurotypicalism, and sexism.[813] Similarly, 'in the late 1800s […] doctors labeled animal rights activists with "zoophilpsychosis," a constructed mental illness that supposedly made people care too much about animals. Women were diagnosed with this more often (Davidson and Smith, 151).[814] We might also think here of the theory of maternal instinct, which portrays women as *naturally* driven to adopt and care for domestic animals, or the association between so-called 'narcissistic' women and 'wild' animals, like felines.[815]

Rather than assuming a natural affinity with nature in general and nonhuman animals, I argue for a feminist-neurodivergent lens, as suggested by Cara-Julie Kather. From this

[809] Cara-Julie Kather, 'We Who Are Not Innocent: On Autistic Girlhood, Sexuality, and Worlding', *Feral Feminisms*, no. 17, forthcoming.
[810] *Ibid*.
[811] *Ibid*.
[812] Daniel Salomon, 'From Marginal Cases to Linked Oppressions: Reframing the Conflict between the Autistic Pride and Animal Rights Movements', *Journal for Critical Animal Studies*, vol. 8, no. 1–2 (2010), p. 63.
[813] See Fiona Probyn-Rapsey, 'The "Crazy Cat Lady"', in *Animaladies: Gender, Animals, and Madness*, ed. Lori Gruen and Fiona Probyn-Rapsey, pp. 175–85, New York and London: Bloomsbury Academic, 2018.
[814] Monroe, 'Ableism, Speciesism', pp. 96–7.
[815] On this topic, see Sarah Koffman, 'The Narcissistic Woman: Freud and Girard', *Diacritics*, vol. 10, no. 3 (1980), pp. 36–45.

perspective, while autistic people (including autistic women) might sometimes present distinctive forms of proximity to nonhuman animals, these bonds are neither natural nor innocent. They arise instead from experiences of oppression and from the unique challenges associated with being neurodivergent and/or animal(ised). Crucially, this means that autistic affinity with (or interest in) the more-than-human world does not automatically translate into being a natural ally of animal liberation, as I hope the case studies above have made abundantly clear. Nonetheless, I concur with Hannah Monroe that '[t]here are concrete ways that autistic people and nonhuman animals can be allies for each other and be in solidarity'.[816]

c) Neurodivergent Veganism and the Trouble with Humanism

Further research would be useful to better comprehend the unique ways autistic people – and potentially queer and feminised autistic people in particular – engage with nonhuman animals. To do so, it will be useful to draw from intersectional posthumanities and critical theory. This section, however, will limit itself to a brief discussion on the non-innocence of neurodivergent veganism. Rather than attempting to confirm an innate tendency towards veganism in autistic communities – or simply asserting an overrepresentation of autistic people within vegan communities – my aim here is to offer some considerations about the distinctive ways autistic people engage with vegan ideology and practice, as well as the barriers they face in going vegan.

Because of their sensory sensitivities and their need for predictability, diet can often be a challenging aspect of life for autistic people. While having atypical diets and being described as 'picky eaters' might potentially reduce the social cost of transitioning to veganism (following the logic that, when you're already considered atypical, one more atypicality might not make much difference), these same tendencies can make the transition psychologically taxing. Indeed, not liking many foods and struggling to try new ones might make plant-based eating more difficult for some. Moreover, given the prevalence of gastrointestinal and other medical conditions that frequently co-occur with autism, some autistic people might encounter unique challenges unknown of allistic individuals. To say this is not to suggest that autistic people are exempt of moral responsibility towards nonhuman animals, but rather to highlight the potential social, medical, and psychological barriers to a plant-based eating for some of them.

This matters because veganism is too often reduced to a matter of physiological purity or innocence. Vegan communities not only tend to feel disgust at the sight of animal products but

[816] Monroe, 'Ableism, Speciesism', p. 94. An example of what the 'ethics of affinity' can look like can be found in Elena Filipczyk's unpublished text 'All Cats Are Autistic, All Caged Birds Are Prisoners? Autistic Joy, Kinship with Animals, and the Ethics of Affinity'.

also frame the consumption of such products as biologically and morally impure, even when accidental. We may therefore follow Jacques Derrida in regretting that, from a moral and political commitment rooted in antispeciesism, veganism is frequently reduced to a hygienist politics where avoiding animal-based products in favour of plant-based ones confers moral and biological purity.[817] With many arguments for plant-based diets framed in terms of health, mainstream vegan politics can be disturbingly close to ableist and eco-fascist discourse. Disabled people whose health does not (easily) permit a fully plant-based diet are often excluded from the scope of veganism and from antispeciesist movements. Similarly, the commitment to plant-based diets in the name of animal liberation is often undergirded by dualistic representations: the perceived purity of plant-based products traffics in tropes of vegetal innocence, whereas the 'impurity' of animal-based products seemingly extends the notion of original sin to the animal world, manifesting as a moral prohibition on killing.

Neurodivergent veganism – namely, the uniquely neurodivergent ways of practising veganism and of bringing antispeciesism together with neurodissidence – provides tools to resist some of these pitfalls. For example, neurodivergent veganism may involve reading common definitions of veganism literally, in 'typical' autistic fashion. According to the Vegan Society:

> *Veganism is a philosophy and way of living which seeks to exclude—as far as is possible and practicable—all forms of exploitation of, and cruelty to, animals for food, clothing or any other purpose; and by extension, promotes the development and use of animal-free alternatives for the benefit of animals, humans and the environment. In dietary terms it denotes the practice of dispensing with all products derived wholly or partly from animals*.[818]

What does 'as far as is possible and practicable' mean, if not that medical conditions or psycho-social barriers to a plant-based diet do not conflict with the practice of veganism? Psychological, social, and economic factors are often cited as excuses for not following or promoting plant-based diets. Yet this does not justify excluding neurodivergent people from vegan politics. From a neurodivergent-vegan perspective, the marginal consumption of animal products may be acceptable when no alternatives exist.

Moreover, because many transitions to veganism are motivated by ethical and political commitments, a more thorough investigation of neurodivergent veganism could clarify the

---

[817] For a broader discussion of the ethics and politics of eating and killing animals, see Jacques Derrida, '"Eating Well", or the Calculation of the Subject: An Interview with Jacques Derrida', in *Who Comes After the Subject*, ed. Eduardo Cadava, Peter Connor, and Jean-Luc Nancy, pp. 96–119, New York and London: Routledge, 1991.
[818] The Vegan Society, 'Definition of Veganism', n.d., accessed 21 October 2025. https://www.vegansociety.com/go-vegan/definition-veganism. Italics in original.

specific ideals and values that drive veganism in neurodivergent communities, as well as the unique forms of non-exploitative kinship they form with nonhuman animals.[819] Such research could also explore the coalitional potentials between the neurodiversity movement and animalist activism – a topic I address in Chapter 6 in the context of autistic resistance to the use of animal experimentation within autism science. Most importantly, it is important to note that veganism should not be reduced to plant-based eating, consumption habits, or to lifestyle. While food politics and access to vegan food are important matters, these discussions should not erase the systemic nature of anti-animal speciesism and the topic of capitalistic violence.

Furthermore, mainstream forms of veganism have often been portrayed as universal moral guidelines, thus reproducing colonial gestures. Instead, speaking of veganisms in the plural form and emphasising more politicised and situated forms of veganism, such as transfeminist veganisms, crip veganisms, or Indigenous, Black, and popular veganisms, might help us resist the hegemonic logics of mainstream veganism.[820] These perspectives show us that veganism should not be an identity, but a political movement and strategy rooted in given material conditions. Neurodivergent veganism, I suggest, might be such a situated form of veganism, for which the struggle against speciesism and animal exploitation is directly entangled with the struggle against neuronormative ableism.

But why should veganism even be considered a central horizon of a neurodivergent antispeciesism? Given the diversity of ethical positions on animal ethics among autistic people, what justifies distinguishing a *genuinely* moral position – neurodivergent veganism – from an equally problematic one – neurodivergent speciesism? To be clear, while I do ascribe different moral values to both perspectives, I would not want to suggest that the former position is in any way innocent or universalisable.

Indeed, while neurodivergent veganism – as subcultural practice, rhetorical position, and ethico-political framework – can provide a basis for resisting the ableist tendencies that permeate the antispeciesist movement and society more broadly, it may nevertheless remain constrained by the deep humanism underpinning the moral prohibition against killing animals and that pervades the neurodiversity movement. Although it challenges the anthropocentrism on which the capitalistic exploitation of animals is founded, neurodivergent veganism may still uphold a form of human exceptionalism by positioning the prohibition of killing as a general ethical horizon and, ultimately, preserve the humanist political grammar of rights and moral

[819] While I do not engage in these discussions in this thesis, I would like to point to the intersectional activist and cultural work conducted by autistic people like Aiyana Goodfellow in the United Kingdom or Perla Anerol Sifuentes García in Mexico.

[820] See, for example, Iván Darío Ávila Gaitán, Anahí Gabriela González, and Josué Imanol López Barrios, 'Los devenires del veganismo: una aproximación genealógica', *Políticas de la Memoria*, no. 24 (2024), pp. 288–303; Martina Davidson, *Repensando o Veganismo: o feminismo e projeto decoloniais como ferramentas ético-políticas para um veganismo anticapitalista*, Rio de Janeiro: Ape'Ku Editora, 2021.

obligations.[821] Posthumanist thinkers such as Donna Haraway and Cary Wolfe have thoroughly critiqued this humanist framework, favouring instead deconstructive and poststructuralist approaches to animal ethics inspired by Derrida.[822]

If it is true that neurodivergent people – like all humans – should no longer measure their own actions in terms of innocence, and if Haraway is right that the framework of animal liberation and vegan ethics is deeply rooted in humanism, then does not the notion of neurodivergent veganism risk reproducing a humanist logic that should instead be resisted? By the idea of 'humanist logic' here, I refer to various core features of humanist philosophies, namely anthropocentrism (the idea that a universal and homogeneous figure of *anthropos*, or 'Man', should be positioned as the measure and centre of all things), human exceptionalism (the idea that this being possesses unique qualities such as consciousness, rationality, language, or morality), and speciesism (the idea that human/nonhuman hierarchies justify differential treatment on ethical and political levels). While it appears that a neurodivergent veganism might oppose speciesism (by opposing differential treatment based on species, at least within the animal realm) and resist anthropocentrism (stemming from the situated perspective of neurodivergent humans and thus undoing the universal figure of Man), it is less clear that it escapes the coordinates of human exceptionalism. Indeed, a certain form of human exceptionalism may be found in the way it mobilises a grammar of rights and duties, such as the prohibition of killing and consuming products derived from nonhuman animals, which attributes humans a unique and quasi-universal moral responsibility towards animals. In this sense, there seems to be a tension between a posthumanist approach, which critiques all features of humanist thinking, and an antispeciesist or vegan approach (including neurodivergent veganism), which partially mobilises the humanist logic to critique the human exploitation of animals. This *trouble with humanism*, which we will see permeates critical animal studies and posthumanist thought, is echoed within neurodiversity studies at large, including in the more-than-human version I am envisioning.

As I have noted above, some autistic people have a tendency towards black-and-white thinking. While the arguments developed in this thesis strive to inhabit nonbinary complexities and stay with various kinds of troubles, to borrow from Haraway's well-known phrase, they

[821] To be clear, it is not self-evident that any grammar of rights and moral obligations is necessarily rooted in humanism. The logic of rights has indeed been applied to nonhuman agents (e.g. mountains, rivers, etc.) in geographical and historical contexts that partially escape the grip of modern-colonial capitalism, such as postcolonial societies like India, Ecuador, Bolivia, or Panama. However, even when these juridical practices are inspired by Indigenous cosmologies that are not humanistic or naturalistic, they remain tinted by the dominant logic of the modern State, which is built upon anthropocentrism and human exceptionalism. In this way, they may continue to produce humanistic effects in the global political economy of international relations and national political debates.

[822] See Donna J. Haraway and Cary Wolfe, 'Companions in Conversation', in Donna J. Haraway, *Manifestly Haraway*, Minneapolis and London: University of Minnesota Press, 2016, pp. 199–296.

can nonetheless appear to remain marked by a range of binary oppositions and entrenched positions that might, perhaps, reflect neurodivergent orientations. Autistic veganism – among other forms of neurodivergent veganism – might at times be characterised by a certain moral self-assurance and the comfort found in having a clear ethical rulebook to follow. It might even, in some contexts, be experienced as a means of resisting neuronormativity itself, and not only speciesism.

To say this, I should hope, does not mean to provide a moral justification for potentially harmful practices, nor to extract neurodivergent veganism from the scope of political conflict. As mentioned above, the autistic disposition towards black-and-white thinking and the stereotype of autistic 'sense of justice' can also lead people down the 'alt-right pipeline', progressively reinforcing conservative or reactionary positions along axes of race, class, gender, sexuality, ability, species, etc. Exploring these phenomena should instead work to clarify the psychological and affective dispositions produced in (some) autistic subjects by neuronormative, capitalist, and colonial societies, with which neurodivergent communities must grapple in their search for ethico-political positions that are at once ambitious and sustainable. Rather than essentialising autistic traits as inherently emancipatory or progressive, along the lines of the (often whitewashing) stereotype of the autistic 'sense of justice', my intention here is to open a pathway towards better understanding the motivations that might bring some autistic people towards practising veganism and the modalities of these vegan practices.

This hypothesis of a distinctly autistic perspective on veganism is echoed in an unpublished text by Mexico-based animal liberation activist Perla Anerol, who reflects on her 'mixed feelings' as a neurodivergent vegan feminist navigating an insensitively speciesist and sexist world.[823] Drawing on her autistic traits and lived experiences of oppression, Anerol exemplifies what it is like to thrive on clear moral guidelines that distinguish right from wrong. In this sense, the rejection of universalist ethics by posthumanist thinkers – alongside the moral ambiguity of the general public regarding nonhuman animals – creates an affective and political landscape that can be alienating, if not at times exclusionary, to some autistic people. Naturally, the desire (or even need) for clear moral guidelines is not proper to autistics, but it could be argued that such an experience is amplified in autism. Without suggesting that posthumanist ethics are fundamentally neuronormative, then, it is nevertheless worth considering that the moral clarity offered by veganism might function as a neurodissident strategy for some autistic people: a way of navigating the troubled waters of the animal question.

[823] Perla Anerol, 'Mixed Feelings', in *Divergences: An Anthology of Neurodissident Worlds*, ed. B. and Ombre Tarragnat, Melbourne: Posthuman Press, forthcoming.

At the same time, such a proposal risks appearing as an instrumentalisation of neurodivergence for and by animal activism, a move that could ultimately harm neurodivergent people. It also risks sliding into a form of moral relativism in which autistic people would be *a priori* justified in adopting a humanist-inflicted vegan politics simply because it feels most comfortable to us. Similarly, in such a perspective, ADHDers may be *a priori* justified in rejecting veganism on the grounds that adhering to strict universal principles is sometimes more challenging for them. This raises the question of whether opposing neurodivergent speciesism to neurodivergent antispeciesism in such a binary way is legitimate. This may risk grounding a normative ethics of animal liberation in essentialised and homogenised neurodivergent traits, not unlike the way Harkness or Grandin draw on their neurodivergence to justify animal killing.

Another potential limit of this argument is found in the socially situated logic of binary thinking, which many antiracist and decolonial thinkers have described as part of white supremacy culture and colonial heritage.[824] Beyond the possibly racialised baggage of a phrase like 'black-and-white thinking', it is well-known that dualist ideas have been core to Western traditions of philosophical, scientific, and political thinking since ancient times. A neurodivergent veganism grounded upon the reclamation of black-and-white thinking might therefore align with the coordinates of whiteness. In other words, rooting neurodivergent veganism into a homogeneous autistic predisposition for black-and-white thinking might potentially risk reproducing racist and colonial logics instead of destabilising them. This is all the more true as autism and neurodivergence are Western constructions which might not bear the same importance or significance in other contexts even when the realities they describe exist across cultures. Learning from pre-, post-, and decolonial and Indigenous traditions of vegan and neurodivergent thinking – even though, or rather especially *when* they might travel under different signs – would help us complicate this proposal.[825]

Without trying to stabilise a unique meaning for 'neurodivergent veganism', then, I suggest that what is most interesting here is not to search for a universal answer, but to recognise that these debates require an attunement to context and lived experience that universal claims may fail to accommodate. The persistent tension between posthumanist thinking and critical animal studies points, I think, to a new kind of non-innocence. This is where my understanding of non-innocence departs from Haraway's. Haraway's theorisation has often been interpreted

[824] See, for example, R. Wayne Branch, 'Prisoners of Binary Thinking', *Medium*, 1 June 2024, accessed 15 February 2026. https://medium.com/fourth-wave/prisoners-of-binary-thinking-9fae10c2ceb5; Peggy Ochoa, 'The Historical Moments of Postcolonial Writing: Beyond Colonialism's Binary', *Tulsa Studies in Women's Literature*, vol. 15, no. 2 (1996), pp. 221–9; Tema Okun, 'either/or & the binary', *White Supremacy Culture*, n.d., accessed 15 February 2026. https://www.whitesupremacyculture.info/eitheror--the-binary.html.

[825] See, for example, Warzone Distro, 'Veganism as Anticolonial Praxis: A Collection of Indigenous Vegan Perspectives', 2023, accessed 12 March 2026. https://warzonedistro.noblogs.org/files/2023/07/Veganism-as-Anti-Colonial-Praxis_A-Collection-of-Indigenous-Vegan-Perspectives.pdf.

as a sufficient reason to reject veganism and the animal liberation framework altogether, and to systematically replace (universal) moral principles by context-based ethics. Yet if no position is ever innocent and ethicality cannot be determined *a priori*, then an ethics of non-innocence in the context of autism and animality should keep the door open to the observation that, for some, (neurodivergent) veganism as a general moral guideline and political horizon might be experienced as the most livable, effective, and perhaps ethical form of activism. Whether this is positive or negative, strategic or hazardous, remains to be collectively discussed within neurodivergent communities.

3. Disanimality and A(û)nimality: Mapping the Intersection of Disability, Neurodiversity, and Critical Animal Studies

By approaching the bond that ties together autistic humans and the more-than-human world in a naturalised way, figures such as Judy Singer and Temple Grandin have failed to challenge the anthropocentric view of nature and nonhuman animals as resources, objects, or backdrops for human activity. The suggestion that neurodivergence – whether by virtue of its perceived *weirdness* or its association with disability – could justify the use and abuse of other animals is equally problematic. Such rhetoric not only naturalises the exploitation of nonhuman animals, but it also essentialises and exoticises neurodivergence itself.

This raises the question of what (critical) neurodiversity studies might look like when placed in dialogue with (critical) animal studies, a question I have begun to explore through neurodivergent veganism. Comparable debates have already emerged within disability studies. Over the past decade, the intersection of disability and more-than-human thinking – whether ecological, antispeciesist, and/or posthumanist – has received growing scholarly attention. Given the entanglements between neurodivergence and disability, this intersection warrants direct engagement within neurodiversity studies as well.

a) Disanimality, or the Animal Trouble in Disability Studies

To extend the biodiversity line of thought I introduced earlier in the chapter, we might begin with Rosemarie Garland-Thomson, who has formulated a perspective on disability through a biodiversity lens. In an early paper, Garland-Thomson reframed disability as a set of benefits

rather than deficits, describing it as 'inherent to the human [...] condition'.[826] In doing so, she advanced anti-eugenic arguments for 'conserving disability'. As with Judy Singer's account of neurodiversity, however, it is noteworthy that a supposedly *human* condition emerges from this description, despite the fact that the kinds of diversity she describes can be readily observed among nonhuman animals as well.

Building on this argument, Garland-Thomson explicitly defines disabilities as 'persistent forms of human biodiversity' in another paper.[827] She adds that 'for humans to thrive, we need to be ensconced in an environment that sustains the particular form, function, and needs of our bodies'.[828] Although her model seems to position itself between a social constructionist and a materialist approach, nonhuman animals remain excluded from it. Once again, biodiversity is mobilised to think through *exclusively human* concerns. Yet the notion that to thrive, one requires an environment adapted to one's bodily dispositions and evolutionary predicates, while certainly true for humans, is equally applicable to nonhuman animals.

Since Garland-Thomson's early writings, the intersection of disability and animality (or, more broadly, with the more-than-human) has received increasing attention in academic research. A pioneering figure in this emerging field is Sunaura Taylor, whose trailblazing book, *Beasts of Burden: Animal and Disability Liberation,*[829] offers a landmark contribution. In this work, Taylor narrates her lived experience as a disabled woman in an ableist society. She recounts moments when she was compared to other animals because of the way she walks, eats, or holds objects. Alongside the autobiographical passages, the book traces the historical imbrication of speciesism and ableism, showing how disabled people have been animalised while nonhuman animals – particularly those kept in captivity – have been disabled. In Taylor's view, speciesism could ultimately be understood as a form of ableism because it determines how an individual should be treated by measuring their capacities against those presumed to be 'normal' for humans.[830]

In a recent publication, Taylor extends her theorisation of disability and animality to a parallel yet interconnected topic: environmentalism. In *Disabled Ecologies: Lessons from a Wounded Desert*, she offers a situated engagement with the Sonoran Desert in Arizona, a landscape historically subjected to military interventions that left it heavily contaminated.[831]

---

[826] Rosemarie Garland-Thomson, 'The Case for Conserving Disability', *Bioethical Inquiry*, vol. 9, no. 3 (2013), p. 339.
[827] Rosemarie Garland-Thomson, 'Human Biodiversity Conservation: A Consensual Ethical Principle', *The American Journal of Bioethics*, vol. 15, no. 6 (2015), pp. 13–15.
[828] *Ibid*., p. 13.
[829] See Taylor, *Beasts of Burden*.
[830] Significantly, Michael Lundblad has called for nuance in this argument, noting that not all forms of speciesism rely on a comparison with allegedly exceptional human capabilities. See Michael Lundblad, 'Disanimality: Disability Studies and Animal Advocacy', *New Literary History*, vol. 51, no. 4 (2020), p. 783.
[831] Sunaura Taylor, *Disabled Ecologies: Lessons from a Wounded Desert*, Oakland: University of California Press, 2024.

This toxicity has produced various forms of disablement among the Mexican-American and more-than-human communities inhabiting the region – or, to borrow from Jasbir Puar's decolonial approach, various forms of 'debilitation'.[832] By introducing the concept of 'disabled ecologies', Taylor maps the diverse forms of solidarity and resistance developed by the injured and the impaired – human and nonhuman alike – within conditions of environmental crisis.

Often building on Taylor's pioneering work, a growing body of scholarship has further examined the intersections between disability and animality,[833] disability and environmentalism,[834] and increasingly the overlaps of both,[835] across the social sciences and the humanities. At the confluence of disability and animality, which is most relevant to the present inquiry, scholars have explored a range of key figures: 'the service dog, the pathologized animal activist or animal lover, the disabled more-than-human animal, and the animalized disabled human'.[836] By foregrounding the entangled logics through which ableism and speciesism mutually reinforce one another, these scholarly contributions have made a compelling case for theoretical alliances and activist coalitions between disability and animalist movements.[837]

While recognising the value and importance of these discussions, Michael Lundblad has urged caution in approaching this intersection. He warns that oversimplified comparisons between disabled people and animals, even when intended to support the latter, can end up harming the former. Lundblad is also sceptical of the tendency, found in both critical animal studies and critical disability studies, to rely on a humanist political grammar rooted in rights discourse and 'universalist ethical positions'.[838] By introducing posthumanist approaches –

---

[832] Puar, *The Right to Maim*. For example, the concept of debilitation refers to the distinct temporality of environmental racism and neocolonial intoxication, whose victims are rarely framed as disabled yet whose lives are fundamentally weakened and precarised.

[833] See, for example, Alice Crary, 'The Horrific History of Comparisons Between Animals and Cognitively Disabled Human Beings (and How to Move Past it)' in *Animaladies: Gender, Animals, and Madness*, ed. Lori Gruen and Fiona Probyn-Rapsey, pp. 117–36, New York and London: Bloomsbury Academic, 2018; Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor (eds.), *Disability and Animality: Crip Perspectives in Critical Animal Studies*, London and New York: Routledge, 2020; Michael Lundblad, 'Animality/Posthumanism/Disability: An Introduction', *New Literary History*, vol. 51, no. 4 (2020), pp. v–xxi.

[834] See, for example, Alison Kafer, 'Bodies of Nature: The Environmental Politics of Disability', *Feminist, Queer, Crip*, Bloomington and Indianapolis: Indiana University Press, 2013, pp. 129–48; Stacy Alaimo, 'Deviant Agents: The Science, Culture, and Politics of Multiple Chemical Sensitivity', *Bodily Natures: Science, Environment, and the Material Self*, Bloomington and Indianapolis: Indiana University Press, 2010, pp. 113–40; Eli Clare, 'The Mountain', *Exile and Pride: Disability, Queerness, and Liberation*, Durham and London: Duke University Press, 2015, pp. 1–14; Sarah Jaquette Ray, and Jay Sibara (eds.), *Disability Studies and the Environmental Humanities: Toward an Eco-Crip Theory*, Lincoln: University of Nebraska Press, 2017; Mel Y. Chen, *Intoxicated: Race, Disability, and Chemical Intimacy Across Empire*, Durham and London: Duke University Press, 2023.

[835] See, for example, Anthony J. Nocella II, Amber E. George, and J. L Schatz (eds.), *The Intersectionality of Critical Animal, Disability, and Environmental Studies: Toward Eco-ability, Justice, and Liberation*, London: Lexington Books, 2017.

[836] Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, 'Disability and Animality: Introduction', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montfort, and Chloë Taylor, London and New York: Routledge, 2020, p. 1.

[837] I will not examine the problem of instrumental uses of disability in animal ethics, which has been largely documented before, for instance by Sunaura Taylor in *Beasts of Burden*.

[838] Lundblad, 'Animality/Posthumanism/Disability', p. vi.

reflected in the title of a special issue he edited – he seeks to complicate and critically interrogate the fraught interface between disability and animality.

To this end, Lundblad introduces the concept of *disanimality*. Also the key analytic of his forthcoming book, disanimality refers to 'a disruptive affect, a feeling of discomfort, a site for critique, but also an opportunity for critical disability, animality, and human-animal studies to come together in more productive ways'.[839] Specifically, the concept applies to forms of disability-related activism, art, and theory where discomfort, disgust, or reactance arises from the presence – or the conscious or unconscious avoidance – of animality. In other words, the concept designates 'the disruptive and perhaps uncomfortable juxtaposition of disability and animality',[840] the troubling affects that arise 'when disability and animality meet'.[841] In the context of neurodiversity studies and the neurodiversity movement, a similar affect can be inferred from the ambivalent engagement with animality that I have described throughout the first section of this chapter. There, an affinity for the more-than-human is constantly entangled with anthropocentric (and sometimes even speciesist) discourse and a human rights approach that keeps animality at a distance.

Following Lundblad's observations, it seems that this animal trouble has prompted disability studies to foreground the figure of the human. This emphasis may be explained by the widespread dehumanisation and animalisation of disabled people, which has often been addressed within disabled communities by the corollary gesture of asserting one's humanity and claiming one's human – and often *all too human* – rights. Moreover, Lundblad provides examples of how people (particularly disabled folks) might respond to attempts by disability (and animal rights) scholars and activists like Sunaura Taylor to reclaim their own animality and connect the two registers of activism. He describes reactions of disgust, anger, or pity, demonstrating that animality is always reconfigured by its encounter with disability.

Before – or sometimes alongside – opening to animality and animal activism, many disability scholars have felt the need to reframe the concept of the human through a disability lens. This is, for example, the aim pursued by Dan Goodley and Katherine Runswick-Cole in their work on posthuman disability studies and the concept of the DisHuman (see Part I), which advocates for 'a time when thinking about the human will *always* involve thinking about disability'.[842] As Lundblad rightly notes, the framework developed by Goodley and Runswick-Cole is 'a human—as opposed to animal—framework'.[843] I will return to considerations of political strategy at the end of this chapter, but it is sufficient here, with Lundblad, to note that

[839] Lundblad, 'Disanimality', p. 766.
[840] *Ibid.*, p. 768.
[841] *Ibid.*, p. 766.
[842] Goodley and Runswick-Cole, 'Becoming Dishuman', p. 13, cited in Lundblad, 'Disanimality', p. 768.
[843] *Ibid.*

this approach exemplifies the tensions between a posthumanist disavowal of the traditional concept(s) of the human (and of the animal) and the political need to see one's humanity recognised and one's human rights secured through a radical expansion of the concept.

Having noted that disability studies approaches like DisHumanism leave little room for the animal question, Lundblad further observes that they tend to rely on the assumption that traits historically denied to disabled people – and which the latter often claim for themselves – can, in turn, be legitimately denied to nonhuman animals. This fracture between disability and animal activism can be productively understood as a resistance to the category of the animal, which remains burdened with devaluing tropes in a speciesist world. Such trouble with animality produces a 'feeling of discomfort that […] persist[s] for many disability advocates, particularly those who might still be dissatisfied with the suggestion that they should therefore become advocates for factory farm animals'.[844]

All in all, Lundblad's work highlights a persistent form of *animal trouble* that runs through a diversity of theoretical, ethical, and political frameworks. Critical animal studies and antispeciesist approaches often rely on concepts and sustain political ideals distinct from those found in posthumanist thought. The tensions between environmental ethics and ecological activism, on the one hand, and animal ethics and antispeciesist activism, on the other, are also well documented, for example, in the French context I navigate.[845] Above all, it is the intersection of disability and animality that appears most profoundly affected. Lundblad is correct to note that the question is not *whether* the two should be brought together, but *how*. Claiming that animality has been subversively reclaimed and now carries positive connotations does not erase the long histories of violence that the notion carries. Likewise, comparisons between disabled people and nonhuman animals are often fraught with harmful rhetorical effects that do more harm than good.[846]

Moreover, inspired by Derrida's critique of the idea that the phrase 'the animal' could encompass all animals – human or nonhuman – in a 'homogeneous continuity',[847] Lundblad aptly remarks that, while humans may attempt to reclaim their animality when they are

[844] Goodley and Runswick-Cole, 'Becoming Dishuman', p. 770.
[845] See, for example, Thomas Lepeltier, 'L'écologie va-t-elle tuer l'antispécisme ?', *L'Amorce: Revue contre le spécisme*, 13 July 2020, accessed 23 October 2025. https://lamorce.co/lecologie-va-t-elle-tuer-lantispecisme/; Jérôme Sagal, *Dix questions sur l'antispécisme. Comprendre la cause animale*, Montreuil: Libertalia, 2021.
[846] Lundblad cites Eva Feder Kittay's imagined response to a comparison made by Peter Singer between her disabled daughter and a pig. Kittay notes that '[t]he comparison has been and continues to be the predecessor and accompaniment of mistreatment, abuse, and even systematic murder'. Eva Feder Kittay, 'Comments on Alice Crary's "The Horrific History of Comparisons between Cognitive Disability and Animality (and How to Move Past It)" and Peter Singer's "Response to Crary"', *ZEMO: Journal for Ethics and Moral Philosophy*, vol. 2, no. 1 (2019), p. 131.
[847] Lundblad cites Derrida at length: 'I have thus never believed in some homogeneous continuity between what calls *itself* man and what *he* calls the animal. I am not about to begin to do so now'. See Derrida, *The Animal That Therefore I Am*, p. 30, cited in Lundblad, 'Disanimality', p. 773.

compared to animals, the category 'human' does not make itself equally available to describe nonhuman animals. He concludes, with Sunaura Taylor, that it is strategically wiser to emphasise 'shared oppressions'[848] rather than draw direct comparisons between disabled people and animals. This argument for systemic thinking, which reappears in Chapter 6 in relation to Lori Gruen's work, demonstrates the political potency of large-scale analysis and materialist thinking. That said, while I concur with all three thinkers on the importance of such kinds of analysis, I also believe that there is value in individual and collective practices of reclaiming animality, a potential I also explore in Chapter 6 through the example of the therianthropy movement.

b) A(û)nimality, an Autistic Approach to Animality in (Post)Colonial Contexts

While existing scholarship on the intersection of animality and disability has shed light on the ways (critical) disability studies intersects with (critical) animal and animality studies, including in the context of autism, there are still few contributions explicitly grounded in neurodiversity studies. This is significant because, although neurodivergent life can and often *does* involve elements of disablement, the concept of neurodiversity is not reducible to disability. Because it encompasses all of the differences between all nervous systems and all forms of neurocognitive functioning (whether human or nonhuman), neurodiversity constitutes a largely 'natural' aspect of human existence, which Judy Singer describes as 'morally neutral'.[849] It therefore relates not only to disabling experiences: while neurodivergence can arise from psychological trauma, deep neurological injury, or neurodevelopmental conditions, it can also result from intensive hallucinogen use or long-term meditative practices, which are not inherently debilitating.[850] As Singer rightly emphasises, 'neurodiversity' does not mean 'neurological disability',[851] even though the two intersect for some people.

The same can be said of Madness, which has increasingly been considered in relation to animality, as exemplified by the above-mentioned figure of the 'crazy cat lady'. Admittedly, Madness often intersects with neurodivergence, and many argue that the two regimes of discourse should never be separated. Yet not every neurodivergent person identifies as Mad, and the two movements communities are not entirely overlapping. It therefore remains an open question how neurodiversity can contribute to discussions of animality in its own unique way – while further connecting with disabled and Mad studies perspectives. This is an inquiry I

[848] Taylor, *Beasts of Burden*, p. 155, cited in Lundblad, 'Disanimality', p. 777.
[849] Singer, 'Judy Singer's Official Definition of Neurodiversity'.
[850] Walker, *Neuroqueer Heresies*, pp. 69–71.
[851] Singer, 'Judy Singer's Official Definition of Neurodiversity'.

pursue throughout this thesis. Echoing the four figures identified at the confluence of disability and animality, my exploration engages with the animal model of autism, the pathologised autistic therian or animal lover, the divergent nonhuman animal, and the bestialised autistic human.

To introduce the topic, it is useful to begin with the existing work conducted at the intersection of neurodiversity and animality. In recent years, Latin American researchers have deployed significant efforts to develop autistic (and more broadly, crip) perspectives on animality and animal perspectives on autism (and disability). In 2024, Mexico-based anthropologists David Varela Trejo and Berenice Vargas García held a public conversation as part of the Cultural Autism Studies at Yale online series, titled 'A(u)nimals: Conversations About Autism, Animality, & Veganism from the South'. I use this event as an entrance point to the academic productions of Latin American scholars on autism, disability, and animality, as it provides valuable context on the intersectional and decolonial nature and genesis of their approaches.

In this conversation, Vargas García highlights the difficulty of finding good bibliographical references in Spanish on autism in Mexico, particularly works authored by autistic people that reject pathologising perspectives.[852] I can echo this observation from the French context, where neurodiversity studies remains in its infancy. This search for references led Vargas García to encounter the work of Dawn Prince-Hughes, who, like her, is a vegan autistic anthropologist. Varela Trejo adds that, within Mexican anthropology, nonhuman animals have historically been treated as objects of inquiry rather than political subjects inscribed, just like humans, within networks of multispecies relations. This recognition has prompted Varela Trejo and Vargas García to bring together autism and animality, two themes which were barely studied in Mexican anthropology and had certainly not been researched together.

The radical creativity and significance of their approach, Varela Trejo and Vargas García argue, lies in the peripherality of their work as researchers from the Global South. While they draw on research areas originating from the Global North, such as critical animal studies, critical disability studies, or crip theory, their perspectives are always informed by the political positionality and history of the South. In line with the historical meaning of the term, for them, being 'critical' means committing to using theory and research to effect real-world change.

Varela Trejo and Vargas García begin with a common slogan in Latin American antispeciesist movements: 'We are all animals'. They note, however, that uttering this statement

[852] David Varela Trejo and Berenice Vargas García, 'A(u)nimals: Conversations About Autism, Animality, & Veganism from the South', Cultural Autism Studies at Yale, 21 February 2024, *YouTube*, published 1 May 2024, accessed 25 October 2025. https://www.youtube.com/watch?v=mziZE8rNPH4.

produces unique effects when one is feminised, negatively racialised, or speaking from a position shaped by colonisation. In Global Southern countries like Mexico, which have endured colonisation, autism diagnoses are also more difficult to obtain, and public conversations about autism are less common than in most parts of the Global North. This context gives Varela Trejo and Vargas García's gesture of reclaiming animality a particular meaning and weight. For them, claiming animality carries particular political potency in the South, given the unique forms of animalisation historically imposed on autistic and disabled people. Rather than seeking to reclaim humanity – a horizon in which they no longer believe – they embrace animality as a form of resistance to the hegemonic conception of the human.

Similarly, their approach to veganism is rooted in a Global Southern perspective that contrasts with the more privileged positions adopted in the North and reclaims its subaltern origin. From their perspective, adopting veganism in the South means committing to a situated and embodied resistance to entangled forms of oppression, following an intersectional approach. To this end, Varela Trejo and Vargas García draw on Latin American thinkers and activists whose work reconfigures veganism as a political strategy grounded in specific social and historical contexts. This enables them to develop conceptual and political tools that speak for their own realities, rather than simply importing theories from the North.

A case in point is the concept of neurodissidence (or, in Spanish, *neurodisidencia*), which is slowly taking over Latin American research on neurodiversity – and a term that has, quite interestingly, also appeared in French activist circles. The term testifies to the conceptual and political creativity of neurodivergent communities outside the Anglo-American context where the neurodiversity movement first emerged. It refers to the politicisation of neurodivergence or anti-neuronormativity and to a position of resistance. In this way, it goes a step further than 'neurodivergence', which might potentially remain at the level of the observation, merely emphasising a statistical or political difference from the norm. Beyond the widespread autism-centrism – perhaps better called autisticentrism – that has often characterised neurodiversity studies, Latin American approaches have thus embraced a broader political scope, encompassing a diversity of pathologised positions related to Madness, something that remains rare in Global Northern neurodiversity studies, which is increasingly undermined by 'neurodiversity lite' approaches (see Chapter 2).

The scholarship produced on neurodiversity and animality in Latin America thus tends to emphasise the centrality of affective experiences rooted in the profound interconnectedness of social vulnerabilities, opening up a field of shared resistance. In another CASY conversation, Varela Trejo and Vargas García note that if autistic people connect with other-than-human beings in ways that differ from allistics, then we must learn to understand and embrace these

divergent connections.[853] This sense of interconnectedness and interdependency, also described by Dawn Prince-Hughes with the term *neuro-expansivity*,[854] challenges the traditional idea of the self-made, independent individual, from Kantian philosophy to current-day neoliberalism via modern colonialism. From this perspective, they imagine what they call a 'neuroexpansive cosmopolitics'. Drawing on Sunaura Taylor, they describe the current environmental crisis, largely driven by capitalism, as a form of mass disablement. This resonates with the idea, exposed by Kathryn Yusoff in *A Billion Black Anthropocenes or None*,[855] that there is not only one homogeneous extinction threatening us all, but there have been, in the course of history, dozens of *ends of the world*, through which given human or animal cultures have gone extinct.

Commenting on Varela Trejo and Vargas García's intervention, Dawn Prince-Hughes shares her hope that, due to its profound relationality with the more-than-human, autistic culture could act as a bridge between the human and the nonhuman, thereby enabling us to reconnect to the world beyond the limitations of Western ontology. Vargas García adds that autistic cultures outside the Global North may exemplify alternative forms of sociality and kinship that resist the capitalist exploitation of life. I wonder whether they might also enable us to escape the coordinates of *neurodivergent speciesism*. In doing so, these subaltern autistic cultures may constitute privileged sites for recovering our animality, something Vargas García playfully terms 'â(û)nimal[ity]'.

This concept is inspired by the Âutistic Ûnion cybercommunity, whose members often signal their belonging through the abbreviation 'Âû'. The abbreviation not only brings together the first letters of the words 'Autistic Union' but also the first two letters of 'autism' and the chemical symbol of gold (Au). This is because the colour gold has come to represent the autistic movement in recent years. The circumflex accents in 'Âû' evoke a roof and signal a desire to defend autistic people beyond pathological perspectives, without adhering to identitarian logics or binary oppositions between neurotypicals and neurodivergents. When using Âû after one's name, particularly in online spaces such as social media profiles, one not only identifies as autistic publicly, but one also signals one's commitment to defending autistic people according to neurodiversity-affirmative perspectives. In an email correspondence, Vargas García explained the way she uses the 'Âû' figure in her anthropological research:

> For me, it's a bit of a subtle intervention: with 'A(û)ntropology' I use that letter to play with the first letter of the name of this science (Anthropology) and the abbreviation usually used for autism

[853] David Varela Trejo and Berenice Vargas García, 'Multispecies Justice, Environmental Crisis, and Affectivity', Cultural Autism Studies at Yale, 30 August 2024, *YouTube*, published 24 September 2025, accessed 25 October 2025. https://www.youtube.com/watch?v=zot7EZ_VuYc.
[854] The concept has since been reshaped into *neurohology*, which I examine in Chapter 5.
[855] See Kathryn Yusoff, *A Billion Black Anthropocenes or None*, Minneapolis and London: University of Minnesota Press, 2018.

> (Au). I wanted to crip and distort the name of the discipline with a 'û' placed in parentheses, sheltered, semi-hidden, comfortable in its lair. The same with 'A(û)nimal', as an embrace of my own animality, also traversed by speciesist violence.[856]

In this thesis, I use 'û' in 'a(û)nimal' to signal the introduction of an autistic and neurodiversity-affirmative perspective into animality studies and animal activism. As a gesture of response-able inheritance but also for the sake of readability, and because Vargas García uses this alternative spelling in her writings,[857] I will (only) accentuate the 'û' in a(û)nimal.

Vargas García's recent article, 'Towards A Cri(p)tique of Autistic Reason: Speciesism-Ableism (and Animalist Resistance)' constitutes the main published contribution to the discussion of autism and animality in Latin America. In this paper, Vargas García draws on Achille Mbembe's concept of *Black reason*, which designates the discourses and practices that have cast the Black body as morally disqualifiable and materially exploitable, often by depicting it as racially impure or savage. This paradigm, operating in part at a psychical level, constructs 'the black race' as a signifier that enables whiteness to exclude and degrade, while simultaneously leaving room for reclamation, turning Blackness into a radical promise of emancipation. Building on Mbembe, Vargas García introduces the notion of 'autistic reason', which encompasses 'the practices, discourses, apparatuses, and technologies that have portrayed the autistic body as subhuman – or protohuman –, sick, disordered, deficient, and alienated from other bodies, beings, worlds, and environments (especially in the West)'.[858] Like Black reason, autistic reason is deeply entangled with ableism and speciesism, as evidenced by 'the way it values the human, properly human over the animal(isable)'.[859]

In the next section of this chapter, I will return to the question of dehumanisation and animalisation. For now, it is worth noting how Vargas García approaches autistic reason from a global majority perspective rooted in decolonialism and antiracism. She highlights the entanglement of ableism with other forms of oppression inherited from coloniality, 'such as racism, classism, cisheterosexism, androcentrism, ageism, sanism and speciesism – among others'.[860] These oppressive structures, she argues, operate through a 'techno-bio-physico-social-affective order'[861] that 'enclos[es]-cag[es], restricts, delimits and limits possible movement and feasible interactions based on that space, both metaphorical and material, which assigns a value to bodyminds in relation to criteria of productivity, functionality, health,

[856] Berenice Vargas García, email to author, 9 December 2025, my translation.
[857] See, for example, Berenice Vargas García, 'Hacia una crí(p)tica de la razón autista: especismo-capacitismo (y resistencia animalista)', *Tabula Rasa*, vol. 51 (2024), p. 250.
[858] *Ibid.*, p. 241. I translated this and all later citations of this reference from Spanish.
[859] *Ibid.*
[860] *Ibid.*, p. 245.
[861] *Ibid.*

desirability, independence, intelligence, self-awareness and instrumental rationality, among others'.[862]

This means that it is not only 'bodies socially understood as "disabled"'[863] that are affected by these oppressive forces, but a diversity of human and nonhuman bodies, albeit in different ways. Various rhetorical apparatuses sustain this structure of oppression: the coloniality of ability,[864] animalisation, compulsory able-bodiedness,[865] and the ideology of normality. In the context of autistic reason, Vargas García observes that 'we are accused of having an incomplete brain-nervous system which […] lacks the properties necessary to properly connect with others.'[866] This reflects a form of compulsory neurotypicality, which frames autism as a deficit in connection. Eduardo Kohn's concept of 'cosmological autism' exemplifies this, referring to what Vargas García names 'planetary indifference', namely a Western disruption of multispecies communication.[867] This figuration, which is reminiscent of the autism metaphor in Umwelt theory (Chapter 1), depicts autistic people as 'asocial deviant animals that, this time, transgress the gregarious and symbiotic essence of life, even in ontogenic terms. From this perspective, the autistic being is stripped of its sentient, agential, cooperative, or resistant quality, which places us in a state of vulnerability'.[868]

Rather than resisting this rhetorical apparatus by seeking to reclaim autistic humanity, Vargas García favours coalitional practices, inviting engagement in 'â(û)nimal conspiracies',[869] or in the words of Anahí Gabriela González and Martina Davidson, 'wild alliances'.[870] In a manner analogous to crip theory, which encourages the subversive reclamation of disability, Vargas García's crip critique – or cri(p)tique – invites us to reclaim animality. She is acutely aware of the role the category 'human' has played in the speciesist devaluation of the animal and considers it no longer productive. She asks: 'Why claim a designation and a status – human – forged in excessive violence against all kinds of beings',[871] whether human or nonhuman? Instead, she envisions a 'joint conspiracy for the liberation of animals, humans and the Earth, fully recognising our deep connection and relationality with the world that was sought to be taken away from us.'[872]

---

[862] *Ibid.*
[863] *Ibid.*
[864] This phrase was introduced in Marcella B. Ferrari, 'Feminismos descoloniales y discapacidad: hacia una conceptualización de la colonialidad de la capacidad', *Nómadas*, vol. 52 (2020), pp. 115–31.
[865] This term was introduced in McRuer, *Crip Theory*.
[866] Vargas García, 'Hacia una crí(p)tica de la razón autista', p. 246.
[867] *Ibid.*, p. 248.
[868] *Ibid.*, p. 250.
[869] *Ibid.*
[870] Anahí Gabriela González and Martina Davidson, cited in *Ibid.*
[871] *Ibid.*, p. 251.
[872] *Ibid.*, p. 252.

However, like Michael Lundblad, Vargas García is careful to complicate her proposal, recognising two added layers:

> The first is that it is not the same to recognise yourself as an 'animal' if you are a person from the Global South, negatively racialised, non-speaking, migrant, from the LGBTIQA+ community, disabled, impoverished, and so on, for whom such a designation has meant extermination and practices of control throughout the centuries. The second aspect is that this renunciation [of humanity] does not erase my species privilege and that, although I am affected by ableism-speciesism, I am not oppressed in the same way as so many animal bodies whose lives and deaths do not matter and who are currently resisting in the confines of farms, nets, slaughterhouses, zoos, squares, vivariums, cages, and aquariums.[873]

With its careful attention to the imbrication of multiple forms of oppression and its commitment to coalitional thinking, Vargas García's work offers valuable lessons for neurodivergent and animal activism in the Global South and the Global North alike. Indeed, by adhering to the humanist grammar of neurodivergent politics, the mainstream neurodiversity movement might risk reinforcing the very colonial, speciesist, and ableist apparatuses that underpin autistic reason. This underscores the importance of decolonising the neurodiversity movement,[874] and, therefore, of bringing about a critical and intersectional turn in neurodiversity studies.

With and alongside Berenice Vargas García, the rich scholarship that is emerging in Latin America on disability and animality might help us in this endeavour. In recent years, a variety of editorial projects have testified to the increasing attention to these intersections. In June 2025, the *Revista Latinoamericana de Estudios Críticos Animales* published a special issue entitled 'Crip, Animal, and Posthuman Insurgencies: Plots from Anti-Normality'.[875] Later that year, the Colombian journal *Tabula Rasa* issued a call for its fifty-seventh issue, titled 'Disability, Neurodissidence, and Madness: Critical and Situated Perspectives', which explicitly invited antispeciesist contributions.[876] Three of the papers published in this issue address matters of animality in relation to disability, cripness, and neurodivergence.[877]

---

[873] *Ibid.*

[874] Such an endeavour has been championed by thinkers such as Vishnu K. K. Nair, Warda Farah, and Mildred Boveda, 'Is Neurodiversity a Global Northern White Paradigm?', *Autism*, vol. 30, no. 2 (2024), pp. 544–51; Mat Thompson, 'Against Neurodiversity: Problems with a Paradigm', *Neurodiversity*, forthcoming. An antiracist intervention can also be found in Morénike Giwa Onaiwu, 'I, Too, Sing Neurodiversity', *Ought: The Journal of Autistic Culture*, vol. 2, no. 1, art. 10 (2020).

[875] See Anahí Gabriela González et al., 'Editorial. Insurgencias crip, animales y posthumanas: Tramas desde la anti-normalidad', *Revista Latinoamericana de Estudios Críticos Animales*, vol. 12, no. 1 (2025), pp. 16–34.

[876] See Berenice Vargas García, Grecia Guzmán Martínez, and Diana Vite Hernández, 'Discapacidad, neurodisidencia y locura: perspectivas críticas y situadas', *Tabula Rasa*, n.d., accessed 25 October 2025. https://www.revistatabularasa.org/convocatorias/numero-tematico-57-enero-marzo-2026/.

[877] See Ombre Tarragnat, 'Etologías cuir y las posibilidades más-que* de la animalidad', *Tabula Rasa*, vol. 57 (2026); Anahí Gabriela González and Martina Davidson, 'Coreografías de la desobediencia: lo crip y lo animal en clave latinoamericana', *Tabula Rasa*, vol. 57 (2026); Surama Lázaro Terol, 'Discapacidad en los santuarios de animales: articulando posibilidades de resistencia animal/ista', *Tabula Rasa*, vol. 57 (2026).

In this regard, the writings of Argentinian philosopher Anahí Gabriela González and Brazilian ethicist Martina Davidson have further advanced the mapping of intersections between animality and disability – alongside considerations of gender and race – in Latin America. While not so much focused on neurodiversity as on disability, González and Davidson engage with these topics through deconstructionist, biopolitical, and affective frameworks.

In 'Becoming Animal, Becoming Crip: A Situated Politics of Trembling Bodies', for example, Anahí Gabriela González argues that the human/animal dualism underpins other forms of oppression, including ableism. She uses the concept of zooanthroponormativity, which refers to 'a normative matrix that forces us to categorise different living beings as humans and animals'.[878] This concept enables her to describe a speciesist-anthropocentric technology of classification which constrains animality, even though the latter inexorably resists and overflows. González contends that animality's resistance to hegemonic normativity can, in turn, support crip and disabled activism in anti-ableist struggles. Drawing on her personal experiences of chronic pain and disability, she emphasises that traits such as 'fragility', 'trembling', 'nerves, emotions, fatigue, [and] weariness' are part of our animal nature,[879] qualities we are routinely asked to hide, including in academic spaces. Reclaiming our animality, González argues, involves cripping our embodied performances. In this sense, she extends 'an invitation to embrace fragility and interdependence as rebellious forces for imagining more hospitable, fair and liveable worlds.'[880]

Anahí Gabriela González, Martina Davidson, and their co-authors explore the intersections of disability and animality in depth, producing writings that focus on posthumanism[881] and antispeciesist politics,[882] often through an intersectional lens attentive to gendered, racialised, and classed forms of oppression. In order to inherit and amplify the work of thinkers like Vargas García, Davidson, and González, my own contribution in this thesis proposes a neurodiversity-specific approach. This means that, beyond disability-centric frameworks, I am interested in expanding neurodiversity concepts to discussions of animality. To do so, I now turn to international contributions which have not benefited from the same

[878] González and Ávila Gaitán, cited in Anahí Gabriela González, 'Devenir animal, devenir crip: una política situada de los cuerpos que tiemblan', *Revista Lationamericana de Estudios Críticos Animales*, vol. 12, no. 1 (2025), p. 39. I translated this and all later citations of this reference from Spanish.
[879] *Ibid*., p. 40.
[880] *Ibid*., p. 40.
[881] See Anahí Gabriela González, 'Perspectivas actuales sobre el posthumanismo: intersecciones entre colonialismo, capacitismo y discurso de la especie', *El banquete de los dioses: Revista de Filosofía y Teoría Política Contemporáneas*, no. 13 (2023), pp. 337–57.
[882] See Anahí Gabriela González and Martina Davidson, 'Alianzas salvajes. Hacia un animalismo decolonial, transfeminista y anticapacitista', *Desbordes*, vol. 13, no. 1 (2022), pp. 11–54; Anahí Gabriela González and Iván Darío Ávila Gaitán, 'Discapacidad', in *Glosario de resistencia animal(ista)*, Bogotá: Desde Abajo, 2022, pp. 44–6; Martina Davidson, 'O especismo também é um capacitismo: diálogos imprescindíveis entre os anticapacitismos e os antiespecismos', in *Antiespecismos subversivos: construções a partir das dissidências*, ed. Martina Davidson and Mica Peres, Rio de Janeiro: Ape'Ku, 2023, pages unknown.

geographical, theoretical, and political unity as the Latin American school of critical animal studies I just discussed, but which remain nonetheless highly instructive for mapping these intersections.

A first ally in this endeavour is Aiyana Goodfellow, an independent researcher from the United Kingdom whose work spans issues including coloniality, neurodiversity, antispeciesism, and adultism. In a publication posted on Instagram, Goodfellow argues that '[n]eurodivergents exist across all species and within all species'.[883] To support her claim, she turns to the concept of personhood. She explains that, because society reduces neurodivergent and animal 'emotions and emotional expression, behaviours, cognition, communication styles, languages, and more' to flaws and deficits, it effectively denies both neurodivergent humans and nonhuman animals personhood. However, if we acknowledge that 'personhood [is] an animal state (rather than a solely human one) then we can understand that different species are simply neurodivergent from each other'.[884] Affirming these minoritarian forms of personhood is the way Goodfellow resists human supremacy and neuronormativity. This resolutely expansive gesture can help foster new understandings and practices of neurodiversity.

That said, it is noteworthy that the concept of personhood remains part of the apparatus of humanist thinking. While the relationship between antispeciesism and posthumanism is not monolithic, it is worth questioning whether centring personhood ultimately consolidates the humanist enterprise. In line with Michael Lundblad's concerns, my own approach is admittedly partial to the posthumanist perspective, which I attempt to bring together with animality studies and philosophical ethology (see Chapter 6). Moreover, if it is true that neurodivergence is related to personhood, it is worth asking whether the latter can truly be found in all animal species, or whether a minority of animal species do not present the traits of personhood. Finally, it does seem important to clarify that, when Goodfellow argues that neurodivergents exist across and within all species, she is only speaking of animal species. In other words, her and my perspectives on neurodivergence are resolutely zoocentric rather than biocentric; they do not include plants or living microorganisms, which are perhaps more adequately described by biodiversity.

Besides Goodfellow's work, another case for animal neurodivergence can be found in the aforementioned paper by Daniel Salomon. The latter introduces the concept of neurotypicalism, an ideology that 'privileges a form of cognitive processing characteristic of peoples who have a neurotypical […] brain structure'.[885] According to Salomon, this is particularly evident in

---

[883] Aiyana Goodfellow (@aiyana.goodfellow), 'Personhood is Divergent: Neurodivergents Exist Across All Species and Within All Species', *Instagram*, 14 July 2023, accessed 11 October 2025. https://www.instagram.com/p/CurTa4sqqXc/.
[884] *Ibid*.
[885] Salomon, 'From Marginal Cases to Linked Oppressions', p. 47.

vermal reasoning, a cognitive process that allows one to develop 'an abstract concept of the world'.[886] In doing so, neurotypicalism 'not only invalidates and makes suspect autist insights, but also invalidates and makes suspect animal intelligence.'[887] While Salomon does not explicitly claim that neurodivergence exists in nonhuman animals *per se*, he argues that animal life is, by definition, 'non-neurotypical'.[888]

Recent research on neurodiversity grounded in more-than-human or posthumanist frameworks can also be found in Erin Manning's work. Manning has developed an approach that resists some core concepts of the field of neurodiversity studies, including the notion of neurodivergence, which she sees as rooted in humanist-neurotypical thinking. Drawing on Deleuze and process philosophy, Manning understands difference as pure immanence and positivity rather than as a deviation from the norm. Her concern is that, by emphasising our literal *divergence* from the norm, we may risk reinforcing the latter. In her work, Manning seeks to describe the lived experiences (e.g. affective, somatic, etc.) of autistic people in more affirmative terms, for example, through the concept of autistic perception, discussed in some more detail in Chapter 5. Interested in the 'minor gestures' enabled by somatic practices such as dancing or stimming, as well as in other art practices, Manning's work challenges the structures of neurotypicality and whiteness from the interstices of lived experience. Rooted in transversal and collective practice, it investigates what might be called *neurodiverse ecologies* (see Chapter 6). Her work has inspired thinkers such as Nick Walker and Helen Edgar, to whom I return in the next chapter.

From a more traditional neurodiversity perspective, PhD researcher Katrine Callander examines trauma and identity in autistic women at the University of Kent. In writings that diverge from her usual area of research, Callander explores what she terms 'neurodivergent ecologies of kinship'.[889] Here, she brings phenomena previously investigated by Joe Harkness, such as ecological subjectivity, nature as refuge, or sensory perception of nature, into the more posthumanist-leaning domains of kinship and multispecies justice.

While this thesis adopts a neurodiversity-specific approach that is not exhausted by the existing discussions of disability and animality, there are important lessons to be drawn from the tensions highlighted by Lundblad. Like him, I am not interested in 'attempting to dispel th[e] discomfort'[890] of disanimality – or, more specifically, a(û)nimality – namely the tensions that emerge between autistic advocacy and animality studies or activism. Instead, I follow Lundblad in his aim of 'explor[ing] more productive ways of engaging it, of staying with that

[886] Temple Grandin, cited in *Ibid*., p. 48.
[887] *Ibid*., p. 49.
[888] *Ibid*., p. 50
[889] Katrine Callander, 'Neurodivergent Ecologies of Kinship', unpublished.
[890] Lundblad, 'Disanimality', p. 766.

kind of trouble'.[891] However, my proposal of 'troubling' instead of merely 'staying with the trouble' might bring me, as in Part I of this thesis, to reclaim disanimality as a potentially positive and subversive phenomenon rather than merely seeing it as a site of deconstruction.

In what follows, I offer contributions to the discussion of animality from a neurodiversity standpoint. To do so, I draw from a wide range of approaches, from antispeciesism to posthumanism. Unsatisfied with an antispeciesism that leaves its humanist assumptions unquestioned, and with a posthumanism that struggles to imagine a truly desirable future for nonhuman animals, I aim to bridge a gap that should never have existed in the first place.

II — Troubling the More-Than-Human Turn: Neurodiversity as a Site of Antispeciesist-Posthumanist Critique

In the first part of this chapter, I provided a broad overview of the limitations and emerging directions in neurodiversity scholarship concerning anthropocentrism and speciesism. From their early days, neurodiversity studies and the neurodiversity movement have engaged with the more-than-human, whether through the biodiversity metaphor, notions of affinity with nonhuman animals, or, more recently, connections with critical animal studies and posthumanism. When I call for a more-than-human turn in neurodiversity studies, then, I am not merely advocating for increased attention to the nonhuman. Rather, I argue that such engagement must be guided by a clearer – or perhaps, *queerer* – sense of purpose and direction.

Environmental humanities scholars often diagnose a crisis of sensibility in Western modernity, lamenting a loss of attunement to the natural world. Yet the history of ecological sciences and ecological thinking, from the eighteenth century onwards, is one of systematic attention and classification. It is therefore not self-evident that the development of modern technologies has reduced our interest in nature. Rather, these technologies appear to have channelled that interest into practices of disenchanted perception and exploitation. Similarly, I suggest that mainstream neurodiversity studies and neurodiversity movements in the Global North have tended to reproduce hegemonic modes of engagement with the more-than-human world, combining naturalistic tropes with speciesist ethics and a humanist political grammar.

To bypass these potential limitations, I seek to trace a new genealogy for neurodiversity that recognises the deep entanglement of speciesism and neuronormativity and amplifies the posthumanist and antispeciesist potentials of the neurodiversity concept. To do so, I begin by examining the practices of dehumanisation that have targeted neurodivergent people, showing

[891] *Ibid.*

that they ultimately rely on the abjection of animality. I evidence two main sites of dehumanisation: technologies of speciation and apparatuses of bestialisation. In the first subsection, I focus on bestialisation, a biopolitical practice that intertwines the figures of the beast, the stupid, and the bestial. Drawing on the writings of Jacques Derrida, Benedetta Piazzesi, Jocelyne Porcher, Vinciane Despret, Sunaura Taylor, and Judith Butler, I argue that bestialisation functions as a speciesist-racist-neuronormative apparatus that harms nonhuman animals, racialised humans and neurodivergent humans simultaneously.

I then turn to technologies of speciation, practices of anthropo-power through which the notion of species is ontologically constructed and politically regulated. Drawing on the work of Anahí Gabriela González, Iván Ávila, Robert Chapman, and Lori Gruen, I show that the discourse of species has historically justified the opposition between the human and the animal(isable), alongside the oppression of the latter. From there, I sketch out a critical genealogy of neurotypicality as a normative and performative construct rooted in the categories of species typicality and species specificity. This *species trouble* paves the way for redefining neurodiversity as a site of antispeciesist and posthumanist critique, as well as for imagining new coalitions between neurodivergent and animalist movements.

I conclude this section and chapter by returning to the question of humanism. Inspired by the history of the feminist movement, I argue that neurodiversity is not (only) a humanism. While a *strategic humanism* may remain productive in securing fundamental freedoms and rights for neurodivergent people, the political grammar of humanism often depends on the further abjection of more marginalised communities from the sphere of humanity. After synthesising the frictions produced at the intersection of multiple forms of more-than-human troubles, I finally suggest that amplifying the positionalities of the most subordinated – the animal, the Mad, the neurodissident – constitutes the most promising strategy.

1. We Have Never Been Human: Technologies of Speciation, Apparatuses of Bestialisation

a) Dehumanisation and Animalisation

Throughout this thesis, I seek to demonstrate that neuronormativity is deeply entangled with speciesism and anthropocentrism, relying in part on processes of dehumanisation and animalisation. But what is the relationship between these last two phenomena? How do they operate in the context of neurodivergence more broadly, and autism specifically? While not all

forms of dehumanisation involve animalisation, many do. In 'Dehumanization and the Question of Animals', Alice Crary offers two compelling reasons to engage with the animal question when discussing dehumanisation. First, 'nonhuman animals merit greater respect and solicitude than their role in dehumanizing discourses would indicate'.[892] Second, 'the revaluation of animal life is [also] crucial for developing clear-sighted, effective strategies for fighting the dehumanization of human beings'.[893]

Animalisation, Crary explains, is 'the rhetorical and practical use of animal comparisons to denigrate, marginalize, and kill human beings who are members of non-dominant social groups'.[894] While it has been centrally associated with racialised people, Crary notes that the phenomenon has also historically been applied to women, 'the gender non-conforming, the cognitively disabled, the physically disabled, combatants, the very old, the very poor, the homeless, and the drug addicted'.[895] These processes are not only ideological but also materially imbricated. Sociological research shows that violence against animals is frequently accompanied by violence against humans.[896] It has also been observed that '"beliefs in a human–animal divide set the foundation for outgroup dehumanization" (Costello and Hodson 2014: 178; see also Dhont et al. 2016; Hodson et al. 2014).'[897] At a strategic level, then, Crary concludes that 'it is non-optimal to organize against animalizing ideologies by protesting that oppressed humans are not animals and thereby simply reinscribing the subjugation of animals'.[898]

And while counterexamples exist – cases in which minoritised human groups opposing dehumanisation by denying their animality have been politically victorious – these exceptions seem to confirm the rule: 'liberating movements centered on the idea that animalized humans are not animals reassert discursive patterns that make future dehumanizing trends more likely'.[899] Crary further asserts that '[i]t is insufficient to affirm the equal and "not-superior-to-animals" moral worth of humans because by itself this gesture does nothing to challenge the denigrating understandings of animals encoded in animalizing rhetoric and practices'.[900] In the context of the neurodiversity movement, claiming rights on the grounds of human dignity or other human traits – even without explicitly asserting that one is *not* an animal – fails to acknowledge that dehumanisation is often rooted in animalisation. By relying on such a

[892] Alice Crary, 'Dehumanization and the Question of Animals', in *The Routledge Handbook of Dehumanization*, ed. Maria Kronfeldner, London and New York: Routledge, 2021, p. 160.
[893] *Ibid.*
[894] *Ibid.*
[895] *Ibid.*
[896] *Ibid.*, p. 164.
[897] *Ibid.*
[898] *Ibid.*
[899] *Ibid.*
[900] *Ibid.*, p. 165.

strategy, the movement risks reproducing anthropocentric and speciesist frameworks, which harm nonhuman animals while simultaneously remaining available to dehumanise neurodivergent humans themselves.

As such, neurodiversity studies and the neurodiversity movement should not only question their humanist political grammar and anthropocentric biases but must also explicitly engage in a more-than-human turn, at least if they hope to effectively resist the dehumanisation of neurodivergent people. This requires close collaboration with animal studies and animal activism, which are uniquely positioned to challenge both animalisation and dehumanisation: 'affirming the moral standing of animals as the kinds of animals they are is necessary for combating animalizing ideologies and because, in undertaking this project of affirmation, animal activists confront challenges analogous to those confronted by activists who want to bring out the humanity of animalized humans'.[901]

In the case of autism specifically, critical autism studies scholars have documented the role that dehumanisation has played in the production of knowledge about autism. Community psychologist Monique Botha, for example, shows that dehumanisation is rampant in psychological autism research.[902] They provide a twofold definition of dehumanisation, which is particularly relevant to the analysis I develop here:

> Dehumanisation is defined as the denial of full humanness to other people (Haslam, 2006). In recent literature, two modes of dehumanisation have been outlined – denial of human uniqueness and denial of human nature (Haslam, 2006). With the former, people are denied, or perceived to lack, traits that distinguish them from non-human animals such as civility, refinement, moral sensibility, rationality, or maturity (Haslam, 2006). This can be described as animalistic dehumanisation because humans are reduced to non-human animals. With the latter, individuals are denied or perceived to lack the traits that separate them from objects and are considered to have inertness, coldness, rigidity, passivity and fungibility, and superf[ici]ality (Haslam, 2006). This can be described as mechanistic dehumanisation because individuals are reduced to machines.[903]

Earlier in the article, Botha already illustrates this dehumanisation by highlighting the centrality of the 'theory of mind' school of thought in the scientific psychology of autism, which claims that autistic people lack an understanding that other people possess 'minds, thoughts, emotions, and experiences'[904] of their own. Additional sites of dehumanising epistemic violence

---

[901] *Ibid*., p. 168.
[902] Monique Botha, 'Community Psychology as Reparation for Violence in the Construction of Autism Knowledge', in *The Routledge International Handbook of Critical Autism Studies*, ed. Damian Milton and Sara Ryan, pp. 76–93, London and New York: Routledge, 2023.
[903] *Ibid*., p. 80.
[904] *Ibid*., p. 79.

are found in the notion that 'autistic people lack full personhood, access to moral community, [and] reciprocal relationships'.[905]

When it comes to the animalistic form of dehumanisation, Botha identifies a variety of rhetorical tropes which are worth quoting at length:

> Accounts of autism in research which perpetrates animalistic dehumanisation or the denial of human uniqueness include comparisons of autistic individuals to Great Apes (Tomasello et al., 2005), to brain-damaged monkeys (Bainbridge, 2008), and chimpanzees (Pinker, 2002). Furthermore, there are arguments that autistic individuals are said to have integrity equivalent only to that of non-human animals (Russell, 2012), and are subhuman and in need of being rebuilt as "proper humans" (Lovaas, Schaefer and Simmons, 1965). Autistic individuals are held to be lacking domesticated traits at a morphological and physiological level (Benítez-Burraco, Lattanzi and Murphy, 2016), incapable of learning "culture" (Pinker, 2002; Tomasello et al., 2005), incapable of having moral selves or personhood (Barnbaum, 2008), inherently selfish and egocentric (Frith, 2004), or missing a core component of what it means to be human (Falcon and Shoop, 2002).[906]

While Monique Botha explicitly addresses the animalistic dehumanisation of autistic people, they stop short of explicitly challenging the speciesist sentiments found in the mainstream scientific literature. Their text provides a compelling example of disanimality: as an autistic scholar in the dehumanising field of autism psychology, Botha occupies a difficult position of resistance from within, which they have come to be known for. Because of the direct weight of animalisation that they bear, it is likely that there is discomfort for them in the idea of reclaiming this animality. This results in an anthropocentric approach, which is entirely understandable given their persistent struggle to transform a field that fundamentally questions their humanity.

It makes sense that Botha would be led, much like Nick Walker in Chapter 2, to embrace a humanistic approach. Earlier in the paper, they note that psychology students learn early on that they must renounce their 'humanistic ambitions' to satisfy the demands of objective science.[907] It is telling that neurodiversity-affirming perspectives are described here as 'humanistic'. When confronted with a field pervaded by pathologising discourse, one might understandably turn to humanistic approaches as a way to resist pervasive epistemic violence. Doing so not only amounts to humanising psychology and psychotherapy; it also entails humanising autism.

---

[905] *Ibid.*
[906] *Ibid.*, p. 80.
[907] *Ibid.*, p. 77.

However, as we have seen with Crary, it is not clear that humanistic thinking is best equipped to resist dehumanisation, as it reproduces an anthropocentric human/animal dualism that renders animalisation available against autistic people in the first place. Similarly, as I demonstrated in Chapter 2, contemporary psychology exhibits a trend of *pathology lite*, reinforcing the need to remain cautious about humanistic approaches. Were neurodiversity studies to sustain a more-than-human turn, a post-humanistic psychology – being partly informed by animal psychology – would likely be better suited to confronting these intertwined issues.

In an academic paper published a decade ago, Swedish researchers Jenny Bergenmar, Hanna Bertilsdotter Rosqvist and Ann-Sofie Lönngren offer an analysis of autism and dehumanisation from the perspective of 'posthumanist philosophy'.[908] While centred, like Botha's on 'the question of the human', their paper is equally concerned with the associated 'question of the animal', to use Derrida's formulation. The authors argue that animalistic dehumanisation relies on the fluidity of the 'human' and 'animal' categories. This fluidity implies that there is no clear or consistent rule for determining who qualifies as either human or animal.

This also implies that the categories can be subverted, a phenomenon that the authors identify in both Temple Grandin and Dawn Prince-Hughes, whose autobiographies 'negotiat[e] the relationship between the categories of "animal" and "human" [in] highly visible' ways.[909] By identifying with, or describing themselves as, nonhuman animals, both writers not only transgress the human/animal divide, but also 'further destabilize the categories'.[910] Whatever one may think of this reading, or of the political implications of Grandin's work in particular, Bergenmar, Bertilsdotter Rosqvist, and Lönngren's approach more successfully brings dehumanisation in conversation with speciesism than Botha's. This is possibly due to its grounding in posthumanism, a field that has seen significant development in Sweden in recent decades. Their analysis illustrates the value of posthumanism and animal studies not only for neurodiversity scholarship but also for neurodivergent activism.

In this regard, Vargas García's foundational 2024 paper offers an unparalleled account of the biopolitical logics behind autistic animalisation. Both speciesism and ableism, she argues, rest on a distinction between 'the human, properly human' – and its opposite, 'the animal(isable)'.[911] Autistic and neurodivergent people are, 'of course', human. Yet within the speciesist-ableist order of humanist modernity-coloniality, beings are classed along different

[908] Bergenmar, Bertilsdotter Rosqvist, and Lönngren, 'Autism and the Question of the Human', p. 203.
[909] *Ibid*., p. 207.
[910] *Ibid*., p. 208.
[911] Vargas García, 'Hacia una crí(p)tica de la razón autista', p. 241.

grades of humanity, ranging from the 'subhuman', to the 'protohuman', via the 'infrahuman'.[912] This differential classification of de/humanisation is rooted in what Anahí Gabriela González and Iván Ávila call *anthropo-power*: 'the power that a subject may exercise to be categorised and produced as human', but which 'does not reside in them (neither in their intelligence nor in their ability to create tools, etc.).'[913] Anthropo-power operates through apparatuses (*dispositivos*) and technologies of de/humanisation and animalisation. Among these are *technologies of speciation*: 'technologies that produce different types of humans and animals within the framework of speciesism as a techno-bio-physical-social order'.[914]

As we saw with the parallel between Black reason and autistic reason, the speciesism-ableism nexus is fundamentally entangled with coloniality and racism.[915] In the 'colonial order of difference', Vargas García notes, 'non-white "races" occupy the lowest rungs'.[916] 'Further removed from the human, properly human (cisgender, white, heteronormative, heterosexual, owner, educated, sane, rational, able-bodied, etc.), they are constituted in their negation, by "zoological witchcraft" (Ko, 2023), in the spectrum of the animalisable'.[917] In their work on pop culture, feminism, and Black veganism, sisters Aph and Syl Ko demonstrate the deep imbrication of anti-Black racism and speciesism.[918] In Chapter 4, Syl Ko bluntly observes that 'By "Human," Everybody Just Means White'.[919] There is indeed something zoological in this apparatus: as González and Ávila explain, the zoological refers to 'a speciesist apparatus that produces the wild animal'.[920] Unfortunately, we do not need to look far into history to find that anti-Black racism has heavily relied on the animalising tropes of wildness or savagery.

Similarly, in *Becoming Human: Matter and Meaning in an Antiblack World*, Zakiyyah Iman Jackson complicates the assumption that Black people have simply been *excluded* from the category of the human.[921] Rather, she argues that Blackness has functioned as a malleable construction through which Enlightenment thinking was able to produce, secure, and continually reconfigure the concept of the Human. As Jackson aptly notes: 'animalization is not incompatible with humanization: what is commonly deemed dehumanization is, in the main,

---

[912] *Ibid.*
[913] González and Ávila, *Glosario de resistencia animal(ista)*, p. 37. I translated this and all later citations of this reference from Spanish.
[914] *Ibid.*, p. 69.
[915] See, for example, Sylvia Wynter, 'Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Over-Representation. An Argument', *The New Centennial Review*, vol. 3, no. 3 (2003), pp. 257–337.
[916] Vargas García, 'Hacia una crí(p)tica de la razón autista', p. 242.
[917] *Ibid.*
[918] See Aph Ko and Syl Ko, *Aphro-Ism: Essays on Pop Culture, Feminism, and Black Veganism from Two Sisters*, New York: Lantern Publishing, 2020.
[919] *Ibid.*, p. 20.
[920] González and Ávila, *Glosario de resistencia animal(ista)*, p. 75.
[921] See Zakiyyah Iman Jackson, *Becoming Human: Matter and Meaning in an Antiblack World*, New York: New York University Press, 2020.

more accurately interpreted as the violence of humanization or the burden of inclusion into a racially hierarchized universal humanity.'[922] In this way, animalisation is one of the modes through which 'black(ened) humanity' has been imposed and appropriated, but it is only one among several forms through which Blackness has been ontologically manipulated.[923] The particular technology of speciation that emerges at the 'confluence of animality and racialization', Jackson argues, is plasticity: 'a mode of transmogrification whereby the fleshy being of Blackness is experimented with as if it were infinitely malleable lexical and biological matter, such that Blackness is produced as sub/super/human at once, a form where form shall not hold: potentially "everything and nothing" at the register of ontology'.[924]

By doing so, technologies of speciation not only reinstate and reinforce the dichotomy between the human and the animal – a dualism long discredited by the life sciences – but also mobilise those deemed *improperly* human in order to consolidate the category of the human, properly human. According to Vargas García, those excluded from typical humanity are ultimately relegated to what she terms 'a nebulous space of animality: negatively racialised, feminised, dissident, deviant, crippled, sick, Mad, impoverished, infantilised and so on'.[925]

Similarly, feminist theory, including posthumanist feminisms, has shown that within Eurocentric humanism the supposedly neutral category of 'Man' with a capital 'M' largely coincides with the non-capitalised 'man' of masculine sex/gender.[926] The normative ideal of the human was predicated on a modern-colonial construction of white, bourgeois masculinity from which women were systematically excluded. Such exclusion was frequently implemented through animalising rhetoric, a mechanism directly entangled with the oppression of nonhuman animals.[927]

With all this in mind, it is becoming increasingly clear that neurodivergent people, 'have never been human', to borrow from Haraway's playful paraphrasing of Latour.[928] Neurodivergent life is persistently targeted by dehumanising and animalising rhetoric. This does not mean that neurodivergent people are not biologically human, nor that neurodivergent lives are entirely excluded from the scope of the human in biopolitical terms. Rather, like

---

[922] *Ibid*., p. 18.
[923] *Ibid*., p. 3.
[924] *Ibid*.
[925] Vargas García, 'Hacia una crí(p)tica de la razón autista', p. 241.
[926] See Genevieve Lloyd, *The Man of Reason: Male and Female in Western Philosophy*, London: Methuen, 1984; Rosi Braidotti, *Posthuman Feminism*, Cambridge and Medford: Polity, 2022, pp. 17–42.
[927] See Haraway, *Simians, Cyborgs, and Women*; Carol Adams, *The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory*, New York and London: Continuum, 1990; Greta Gaard, *Ecofeminism: Women, Animals, Nature*, Philadelphia: Temple University Press, 1993; or, more recently, Alina Salmen and Kristof Dhont, 'Animalizing Women and Feminizing (Vegan) Men: The Psychological Intersections of Sexism, Speciesism, Meat, and Masculinity', *Social and Personality Psychology Compass*, vol. 17, no. 2 (2023).
[928] Haraway, *When Species Meet*, p. 1. Haraway is indeed inspired by Bruno Latour's *We Have Never Been Modern*, Cambridge: Harvard University Press, 1993.

Blackness in Jackson's argument, neurodivergence is at once humanised and infrahumanised, dehumanised, animalised. Neurodivergent people are human only insofar as they are not properly human, only insofar as this contrast can consolidate the hegemonic ideal of the human, properly human.

Following the ontological, epistemological, and ethico-political revaluation of animality in contemporary animal/ity studies and posthumanist theory, some scholars have begun to question the usefulness of the term 'animalisation' to name processes of rhetorical and political abjection. If animality is value-neutral – and perhaps even reclaimable by marginalised human groups – rather than a deficit-based and degrading term, then is it still appropriate to speak of 'animalisation', even when we mean specifically humanist, speciesist modes of abjection? Indeed, if animality is value-neutral or positive and merely refers to our animal nature, then would animalisation not be a positive thing, for example, the recognition of one's animality? Should we not welcome this recognition in the same way marginalised human groups fight for the political recognition of their humanity?

In this regard, beyond the traditional reframing (and deconstruction) of the 'human' concept in posthumanism, some believe that the 'animal' concept has become 'obsolete, ideological, and oppressive' and should therefore be replaced by that of the 'postanimal'.[929] In a symmetrically opposed gesture, some scholars have turned to the term 'de-animalisation', which designates the stripping of animals – human or nonhuman – of their fundamental animal features. While especially evident in contexts such as meat production, the concept could also be mobilised more broadly in place of animalisation. With this term, we might avoid reproducing the speciesist logic at work in these biopolitical processes by the very gesture of naming them. The first option, 'postanimal', refuses to assume a stabilised concept of animality; the latter, 'de-animalisation', assumes an animal nature but refuses its abjection. Others still, including Judith Butler, have proposed the term 'bestialisation' to refer specifically to negative forms of animalisation. In what follows, I expand and rework this concept to examine how bestialisation operates at the intersection of neuronormativity and speciesism.

b) **Beasts, *Bêtise*, and Bestialisation**

Beasts of Burden, the title of Sunaura Taylor's influential study of the intersection between ableism and speciesism, draws on an old expression originally used to refer to nonhuman animals tasked with transporting goods or materials. Such labour was often arduous and

[929] See Matthew Senior, David L. Clark, and Carla Freccero, 'Editors' Preface: "Ecce animot": Postanimality from Cave to Screen', *Yale French Studies*, no. 127 (2015), p. 8.

debilitating, and it was not uncommon for these animals to become too disabled to continue working. In the eyes of their human exploiters, this shift reversed the allocation of burden: rather than being the ones who literally bore the burden of forced labour, the now-dependent animals came to be seen as burdens on the humans who had exploited them, humans who were suddenly confronted with the problem of caring for no longer exploitable animals.

Taylor notes that comparable forms of dependency are routinely projected onto both domesticated animals and disabled people, who are thus described as burdens on society. But '[the] contributions [of disabled people] to [their] families, communities, and cultures are often overlooked or flat-out negated'.[930] Public attention tends to fixate instead on the social welfare benefits that some disabled people receive from the state and the care work they may require – labour which is, it is must be said, disproportionately imposed on racialised women.[931] Likewise, domesticated animals are often framed as unnatural human inventions that harm their environments, and disabled animals are similarly 'impacted by ableist human conceptions of dependency',[932] depicted as burdensome because they cannot be made productive within human institutions like the animal industrial complex.

'In many ways', Taylor observes about disabled people and nonhuman animals, 'we have been presented as beasts and as burdens'.[933] The figure of the beast has long underpinned modern apparatuses of racist, ableist, speciesist, cisheterosexist biopolitics and necropolitics. Historically, proponents of heteronormative, reproductive sexuality constructed their scientific ideologies through a deliberate detachment from animality: 'We are not animals', they claimed, framing homosexual practices as beast-like behaviour.[934] From a different vantage point, Shoah survivor Primo Levi recounts his captivity in the Nazi camp Auschwitz-Monowitz in 1944 in *If This is a Man*: 'But this was the sense, not forgotten either then or later: that precisely because the Lager was a great machine to reduce us to beasts, we must not become beasts'.[935]

In yet another register of animalising violence, disabled and racialised people were long exhibited in freak shows and human zoos alongside exotic animals.[936] In these earlier chapters of Western modernity-coloniality, nonhuman animals and disabled humans circulated together in tropes of animality, bestiality and stupidity. In French, the word '*bête*' is polysemous: as an adjective, it denotes stupidity, while as a noun, it attaches to the animal as 'beast'. This

[930] Taylor, *Beasts of Burden*, p. 101.
[931] *Ibid*., 99
[932] *Ibid*., p. 101.
[933] *Ibid*., p. 100.
[934] Despret, *What Would Animals Say*, p. 65. However, since both incest and homosexuality are found in animal cultures, Vinciane Despret is right to conclude that '[b]easts, therefore, behave like beasts until we change our minds about what behaving like a beast means'.
[935] Primo Levi, *If This is a Man*, New York: The Orion Press, 1959, p. 39.
[936] See Sammy Jo Johnson, 'Zoos, Circuses, and Freak Shows: A Cross-Movement Analysis', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, pp. 57–74, London and New York: Routledge, 2020.

polysemy is far from incidental: it reveals the co-construction of speciesism, ableism, racism, and neuronormativity in European modernity.

In this regard, the philosophical production of Jacques Derrida proves particularly instructive. Throughout his career, Derrida repeatedly engaged with the question of the beast, which he often connected to *bêtise* (stupidity). In the published version of his seminar, *The Beast and the Sovereign*, he maintains that the beast – for example, the animal – is linked to the sovereign – for example, the king – because neither is subjected to the law. The king, by virtue of his unique political status, stands above the law; the animal escapes it from below, deemed to lack a society, a polis, or a social contract.[937] Derrida uses this question as a starting point to continue his lifelong deconstruction of Western metaphysics.

At the opening of the seminar series, Derrida cautions: 'the beast is not exactly the animal'.[938] The distinction relates to sexual difference: in French – the language Derrida spoke in these seminars – the animal [*l'animal*], like the sovereign [*le souverain*], is masculine, whereas the beast [*la bête*] is feminine. This offers a first, subtle indication of the kind of animal the beast represents, and the kind of treatment it may receive from the sovereign. The seminar cycle, therefore, investigates 'the relations of beast and sovereign, […] of the animal and the political'.[939]

At one point in the seminar series, Derrida pauses to reflect on the trajectory of his inquiry. He notes that, up to that point, he had primarily examined the question of what is *proper to man*, leaving the animal aside. He then decides to turn to 'the beast itself', observing that 'when we say the beast *itself*, we are thinking of what is proper to the beast'.[940] What, then, can be said of the proper of the beast [*le propre de la bête*]? Derrida suggests this question is necessarily complicated by the very name of the beast, for to be *bête* is, paradoxically, a distinctly human thing.

From the substantive *the beast* to the epithet *bête* (or bestial, for that matter), there is a leap, an abyss, that marks the gap between the animal and the human. There is nothing animal about *bêtise* or *bestialité*, Derrida proposes. According to him, '[i]t is never said of the beast that it is *bête* [stupid] or *bestial.* The adjective, epithet, attribute *bête*, or "bestial" are never appropriate for animal or beast. *Bêtise* is proper to man (or even to the sovereign qua man)'.[941] Derrida's claim is inspired, in part, by Gilles Deleuze, who suggests that *bêtise* is, in a sense, a uniquely human trait. In *Difference and Repetition*, Deleuze already argued that the animal

[937] See Jacques Derrida, *The Beast and the Sovereign, Vol. 1*, Chicago and London: The University of Chicago Press, 2009, p. 14.
[938] *Ibid*., p. 20
[939] *Ibid*., p. 29.
[940] *Ibid*., p. 138.
[941] *Ibid*., p. 68.

cannot be *bête*, for *bêtise* does not concern knowledge or the possession of truth or error. Rather, it concerns 'a defect in judgement, an inability to judge',[942] often paired with the distinctly human desire to judge, manifested in practices of tyranny, cruelty, and philosophy. All three claim a calculating rationality, a desire to arbitrate between *la vie la mort*, namely, to decide who lives and who dies.

Precisely, when one describes a 'fellow' human as stupid, brutish, or bestial, this accusation often draws on the register of animality. This reveals the assumption that the beast is always, already, lacking the capabilities – intelligence, civility – that distinguish the valuable and civilised and the stupid or brutish. The animal cannot be *bête* (stupid nor bestial) because it is excluded, from the outset, from the category 'human'. Only the fellow [*le semblable*], the one sufficiently similar to the human sovereign, may live, and thus the one who is *bête* may die. Ultimately, Derrida concludes that *bêtise* (stupidity) is a fundamental feature of sovereignty: a human desire to conclude, arbitrate, and exert judgement, inevitably paired with bestial cruelty.

That stupidity, brutishness, and bestiality are human epithets reveals that animals are excluded from the start. Accordingly, '[i]f the proper to man is the properly human, then proper of the *bête* [beast] is certainly neither the "properly *bêtise*" of bestiality nor the "properly *bête*" of *bêtise*.'[943] Treating another human or animal as *bête*, then, amounts to imposing a properly human gaze on animals, one marked by one's own stupidity. There is, Derrida suggests, something profoundly human(ist) about the tendency to associate animals with *beastness* – a term that does not exist in French – and to equate allegedly stupid or brutish humans with animality. The human subject, seeking sovereignty, becomes caught in a 'becoming-beast' or 'becoming-animal' of himself.[944] In Derrida's terms: 'he who plays the sovereign plays the beast'.[945]

While Derrida comes full circle by bringing the animal back to the human sovereign, we learn a fundamental lesson along the way: 'the beast becomes the sovereign who becomes the beast; there is the beast *and* [*et*] the sovereign (conjunction), but also the beast *is* [*est*] the sovereign, the sovereign *is* [*est*] the beast'[946] (copula). To arrive at this conclusion, Derrida plays with the homophony of '*et*' and '*est*' in French: in grammatical terms already, the conjunction becomes copula, and so the sovereign becomes beast. This is not to suggest that the stupidity and cruelty of philosophy or politics are ultimately rooted in inhuman animality,[947] for again, there is something uniquely human at work here.

---

[942] Gilles Deleuze, cited in *Ibid*., p. 148.
[943] *Ibid*., p. 140.
[944] *Ibid*., p. 30.
[945] *Ibid*., pp. 32–3.
[946] *Ibid*., p. 18.
[947] *Ibid*., p. 14.

And thus Derrida speaks of the 'man made *bête* or man-*bête*',[948] a phrase in which 'you can no longer tell the difference, in the French language that we are speaking by contract, between *bête* the noun and *bête* the adjective'.[949] The potency of Derrida's deconstructionist approach is encapsulated in this sentence: it may appear that there is nothing more *bête* than attempting to give a unique definition of the *bête*, or to arbitrate an ultimate meaning for the word. Beast and *bête* acquire no defined meaning and remain subject to the sovereign's judgement.

Derrida's discussion can be brought together with the question of neurodivergent veganism, where an autistic disposition for black-and-white thinking is sometimes applied to matters of animal ethics. Following Derrida, it might appear that there is something profoundly human(ist) in autistic veganism's sovereign desire to arbitrate between moral and immoral behaviours *a priori*. How should we understand and navigate this apparent tension between (autistic) veganism and posthumanism? Should this observation be used to invalidate autistic dispositions for, and practices of, veganism? On the contrary, I suggest that embracing an autistic and neurodivergent lens can help us trouble – rather than radicalise – this opposition: while rejecting *a priori* and universalist ethical principles is a laudable precaution, a deconstructionist perspective may ultimately justify the contextual logic of autistic veganism. Indeed, in social contexts where autistic black-and-white thinking is often framed as rigidity, extremism, or excess, the Derridean invitation to non-binary thinking can sometimes be diverted and misappropriated by proponents of autistiphobic and speciesist beliefs. By reducing autistic ethical thinking to its humanist implications – and therefore to its alleged *bêtise* – such a reading may, at times, risk amplifying neuronormative expectations and speciesist dogmas.

It is not my intention to adjudicate Derrida's theory by suggesting that it is inherently neuronormative or even speciesist. However, it is surprising that Derrida would argue that 'it is never said of the beast that it is *bête* [stupid]', when this clearly has been the case historically, as we have seen with Sunaura Taylor (more to follow). Derrida could not have anticipated crip animal studies, and it would be unfair to gauge his proposals in this light. But could it still be that he misses (or partially overlooks) the historical, material-semiotic entanglement of speciesism and ableism here?

From Derrida's perspective, the animal is never faced with ableism by virtue of being an animal, and if we apply the same logic to neurodivergent veganism, the autistic risks facing ableism by virtue of being too human(ist) in their defence of animals. In the first case, the animal risks being overly singularised and opposed to the human; in the second, the autistic-*bête* is opposed to the sensible posthumanist or deconstructionist. Indeed, when the term 'bêtise'

[948] *Ibid*., p. 139.
[949] *Ibid*.

[*stupidity*] is subversively applied to the human(ist) subject, it may become available for ableist uses when caught in the wrong contexts. In this regard, suggesting that autistic veganism is *bête* because it is too humanist (or binary, or self-assured) would be clumsy, if not potentially offensive.

Derrida's rhetorical reversal of *bêtise*, which does not exactly pay heed to the entanglement of speciesism and ableism or neuronormativity, may prove insufficient in this regard and produce undesired forms of disanimality. When dualistic lines of thinking, such as human/animal and sensible/stupid, are not blurred but rather reinforced by deconstructionist tropes, then further deconstruction is warranted. While it is clear that a kind of *trouble with humanism* is at play in autism (and neurodiversity studies more broadly), I wonder whether using Derrida's method against his conclusions may lead to a more affirmative perspective here. In the context of neurodivergent veganism, I would suggest approaching the autistic desire for certainty more carefully, if not even celebrating its non-binary potentials. Indeed, as we will see below, this thesis argues that the autistic deconstruction of the human/animal binary, for example through figures and practices of a(û)nimality, can have productive effects when carefully executed.

As for describing animals as *bête* (whether by that we mean stupid or bestial), even if we might agree with Derrida that it is a stupid (*bête*) thing to do, this trope has indeed been used throughout modern history. Precisely – and this is where Derrida's analysis should be expanded – this trope is integral to the neuroableist or neuronormative logic. Perhaps pointing to the *bêtise* of speciesist neuronormativity could be a more productive gesture, then, than pointing to the *bêtise* of neurodivergent vegans. In this sense, I hope to demonstrate that, in different sites, the becoming-*bête* of the animal has coincided with what I call a bestialisation of neurodivergent humans. With autistic people, as we know, it is not so much bestiality as sexual misconduct that neuronormative representations target, but rather bestiality as a form of stupidity paired with a sense of asocial brutishness.[950]

Similarly, in her historical study of the biopolitical government of animals in Western European modernity, Benedetta Piazzesi documents the emergence of a form of speciesist-colonial-capitalist human(itarian)ism in the nineteenth century, which sought to civilise and moralise nonhuman animals, non-Western populations, and the working class.[951] She shows that veterinary sciences developed a humanitarian approach to animals that relied on stigmatising

[950] Bestiality as sexual misconduct has been mostly attributed to Black men; it would be useful to examine how this is (or isn't) reconfigured in the context of Black autistic men. For a history of the emergence of the *bestia* (wild carnivorous animal) vs. *pecus* (tamed herbivorous animal) distinction and the concept of bestiality in the years 1300, see Pierre Olivier Dittmar, *L'Invention de l'animal. Essai d'anthropologie médiévale*, Paris: Éditions Dehors, 2026.
[951] See Piazzesi, *Del governo degli animali*, pp. 146–7.

minoritised human populations' alleged inhumane brutality towards nonhuman animals. Such a 'zoophilic' position – this was the name given to pro-animal positions at the time – allowed veterinarians, animal scientists, and other animal enthusiasts to present themselves as humane and justify their biopolitical interventions on nonhuman animals. In this process, nonhumans were therefore humanised – made obedient, well adjusted, and productive – simultaneously as minoritised human populations were constituted as bestial.

This demonstrates an ambivalent relationship to animality, at once protected and stigmatised. Such a zoophilic position was defensible only insofar as animals were forcibly humanised – that is, domesticated and acclimatised. The animal was deemed respectable only when it no longer acted as a beast. The untamed animal who resisted their domestication, however, remained a beast, just like the marginalised human who failed to comply with the modern-colonial ideal of human(e) behaviour. As Piazzesi rightly notes, this perspective proves 'substantially zoophobic'[952]. Indeed, both categories ultimately became *bêtes*:

> Just as, for Foucault [who echoes Derrida here], penal reform aims to suppress both 'the super-power of the sovereign' and the criminal 'infra-power', so too for nineteenth-century zoophilanthropy it is a question of severing the point of junction where the super-power of the violent master and the infra-power of the untamed beast oppose each other. Human abuse and animal resistance are thus stigmatised as two forms of symmetrical and opposing bestiality.[953]

This humanist – or humanitarian – perspective, far from leading to the end of animal exploitation and oppression, has marked its exponential and technological development in Western modernity. In other words, the humanisation of animals and animal governance has not marked the end of human *bêtise* or *bestialité* towards animals, but rather its biopolitical renewal. Such a rhetorical framework also serves to humanise the humans who partake in its more compassionate practices, while continuously dehumanising their potential victims. Another example of this can be found in the nineteenth-century United States of America, where, as Michael Lundblad has shown, arguments for a more humane treatment of animals and 'the discourse of humane reform became a productive framework for distinguishing between blackness and whiteness'.[954] These historical logics cast retrospective light on the practices of humanising autism in humanistic psychology, discussed in Chapter 2, or the practices of humanising mouse models of autism to 'cure' autistic humans, examined in Chapter 6. The humanitarian façade of these practices similarly conceals a more troubling reality.

---

[952] *Ibid*., p. 147. I translated this and all later citations of this reference from Italian.
[953] *Ibid*.
[954] Michael Lundblad, 'Archaeology of a Humane Society: Animality, Savagery, Blackness', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Marianne DeKoven and Michael Lundblad, New York: Columbia University Press, 2012, p. 96.

This logic is also found in the modern construction of the farmed animal in the West, where mechanising and bestialising technologies of animal governance continue to coexist with ideals of welfare and *humane* treatment. In a paper whose title could be translated as 'The Farmed Animal Is Not (a) Stupid (Beast)' [*L'animal d'élevage n'est pas si bête*], Jocelyne Porcher traces the historical construction of the farmed animal since the nineteenth century.[955] As Marta Segarra remarks in *Humanimaux*, Porcher tends to romanticise the past history of Europe's humanist/humanitarian treatment of farmed animals,[956] but her description may nevertheless prove useful for understanding the current entanglement of *bêtise* and animality, or what I will describe as bestialisation below.

Today, the farmed animal has been converted into a set of 'animal productions' through the development of intensive, industrial farming.[957] Before they had been de-animalised by zootechnical sciences and industrial capitalism, Porcher suggests they were considered 'as an individual, part of a herd, stakeholder in a territory within systems that brought together human societies and animal societies'.[958] Each animal had a name, an identity, a personality, and individual preferences that farmers supposedly knew and respected. Porcher maintains that the farmed animal also had a unique relationship with the world and was perceived as a collaborator in farm work. Their intelligence was put to the service of multispecies partnerships – a curious way of describing animal exploitation, which corroborates Segarra's caution about Porcher's irenic portrait of traditional animal farming. Following this supposed golden age, Porcher argues that the farmed animal 'has been made stupid' [*il a été rendu bête*] through the development of zootechnical structures. Their subjectivity has been denied – almost annihilated – and the intelligent animal of the past is now but a distant memory.

In order to become more productive, farmed animals have also been rendered interchangeable, reduced to mere measurements of carcass weight. Turned into an 'undifferentiated mass',[959] hundreds of millions of animal bodies pass through the production lines of the animal industrial complex each day to be processed into meat or other animal-based products. As Porcher strikingly summarises: 'The beast that is today's farmed animal is the historical product of a scientific construct whose goal, evident from the very beginnings of animal husbandry, is to de-animalise the animal, that is, to destroy its living character in order to incorporate it into industrial processes and make its exploitation a profitable activity for industrialists and for the nation'.[960] This de-animalisation relies not only on the mechanisation

[955] Jocelyne Porcher, 'L'animal d'élevage n'est pas si bête', *Ruralia*, vol. 14 (2004).
[956] See Segarra, *Humanimaux*, pp. 113–20.
[957] Porcher, 'L'animal d'élevage n'est pas si bête', n.p. I translated this and all later citations of this reference from French.
[958] *Ibid*., n.p.
[959] *Ibid*., n.p.
[960] *Ibid*., n.p.

of farming technologies, but also of the animals themselves, reduced to physiological machines that, when fed raw materials, produce new exploitable biomatter: eggs, milk, fat, flesh.[961] In Porcher's terms, while the farmed being 'was an animal, it has become a beast'.[962]

This becoming-beast of the farmed animal persists in animal farming today, where Porcher observes that animals nonetheless bring their own rationalities to the labour of resistance:

> One might think that the sow's real work, the place where she puts her cognitive and emotional abilities to use, lies precisely in resisting her condition and *not becoming a beast, but remaining an animal*. It should be noted that this persistence in living is not provided by the organisation of work, which, as we have seen, is based on the scientific fact that sows are machines. Life, that is to say, the subjective relationship to the world, the expression of free behaviour, movement, communication and affection, is not provided by work procedures; on the contrary, it is violently prevented. And yet life resists, yet not all sows die. Perhaps they do not die because they 'work' to accept this situation; to accept doing nothing, to accept that time has stopped, that nothing exists except in the interstices of what may happen unexpectedly, they persist in remaining animals despite everything.[963]

According to Porcher, most animal farmers recognise this intelligence of the animals they work with. 'Their beasts', as they often fondly call them,[964] are still animals. Porcher instead places the blame on animal sciences and zootechnics, which produce the *bêtes* we have come to know. Although Porcher's narrative is imbued with a humanitarian perspective, which distorts the history of animal farming and proposes a simplified opposition between the humane farmer and the inhumane scientist, we might at least agree with her critique of the animal sciences, which have tended to turn animals into *bêtes*.

Indeed, in *What Would Animals Say if We Asked the Right Questions?* Vinciane Despret describes similar phenomena within the animal sciences, particularly ethology, the science of animal behaviour (more in Chapter 6). She recounts that,

> [f]or a long time, it has been difficult for animals not to be stupid [*bêtes*], or even very stupid. […] But even if it is helpful to strip down these dominant machine-like discourses that have rendered beasts stupid [*rendre bêtes les bêtes*], it would be instructive to interest ourselves in the little machinations and less explicit forms of denigration that present themselves under the often

[961] It is important to note that the mechanisation operated by zootechnics is very different from the one found in Cartesian thought. The latter offers an 'anatomo-metaphysical' conception of the animal as automaton, whereas the former uses a thermodynamic conception to define the economic status of the animal. This distinction is introduced and discussed in Piazzesi, *Del governo degli animali*, p. 202.
[962] Porcher, 'L'animal d'élevage n'est pas si bête', n.p.
[963] *Ibid*., n.p., italics mine.
[964] See Vinciane Despret, *What Would Animals Say*, p. xii.

> noble motives of skepticism, obeying the rules of scientific rigor, parsimony, objectivity, and so on.[965]

One of the key apparatuses at play in ethology is Morgan's canon, a scientific principle stating that, when explaining animal behaviour, explanations rooted in simpler psychological skills should always be preferred over those assuming more complex abilities. As Despret observes, this principle 'is but one way, among other much more subtle ways, of talking nonsense [*bêtifier*]'[966] about nonhuman animals. It is not only nonhuman animals who are rendered stupid by these scientific apparatuses, but also the scientists themselves, who reveal their human(ist) desire to arbitrate over the lives of other beings. Derrida's observations regarding the sovereign tyrant, the cruel, and the philosopher seem, in many ways, to hold for the scientist as well.

In Chapter 6, I turn to the scientific co-construction of autism and animality in animal models of autism, which I describe, following Despret as 'dispositives that "make stupid" [*rendent bête*]'.[967] There, I identify a confluence of speciesism and neuronormativity through which nonhuman animals and autistic humans are brought together in material-semiotic terms – a forced pairing that nonetheless opens the way to shared resistance and coalition-building. With regard to the animals, we may note with Despret that '[t]hese bestialising theories [*théories abêtissantes*] have concrete effects on animals, whether they are direct (e.g. in laboratories) or indirect, by legitimating thoughtless treatment (e.g. that they are, after all, only beasts, and not geniuses).'[968]

This conceptual journey into the history of the *bêtes* has demonstrated that humanism ultimately rests on speciesism, colonialism, capitalism, ableism, and neuronormativity. As we have seen, humanisation and bestialisation are two sides of the same coin. The biopolitical process of humanisation has indeed been a matter of imposing typical and normative behaviour upon various populations – nonhuman animals, the global majority, working classes, neurodivergents, etc. – or what we may describe as compulsory ethotypicality (see Chapter 6). Yet by imposing normative human(e) or humanised behaviour onto these populations, such biopolitical apparatuses succeed in foreclosing the possibility of animal or neurodivergent behaviour, which is deemed stupid, bestial, or brutish.

This process, which I call bestialisation, is one of the apparatuses of anthropo-power that unfolds at the intersection of speciesism and neuronormativity. When the bestialisation of untamed animals is associated with an *abêtissement* (namely, a becoming-stupid) of

---

[965] *Ibid*., p. 7.
[966] *Ibid*.
[967] *Ibid*., p. 13.
[968] *Ibid*., p. 229. The translation has been modified to replace 'bewildering' by 'bestialising', which seems more accurate.

neurodivergent humans, the former are made stupid and negatively animalised; the latter are rendered less-than-human, animalised, and ultimately bestialised.

**

The concept of animality contains a fundamental duality. For many marginalised human communities, being treated *as animals* entails being stripped of one's (human) dignity. For scholars in (critical) animal and animality studies as well as for animal(ity) enthusiasts, in contrast, animality is a reality we share with other species – something to be embraced, perhaps, or at the very least something we should learn not to denigrate. However, as Judith Butler notes in their response to Sunaura Taylor and Sara E. S. Orning's 2020 interview, for the two thinkers, 'being treated as an animal is not the same as living as an animal'.[969] In their own words, Butler adds that:

> Being treated as an animal is presumed to be bad treatment, a defining practice of anthropocentric power that seeks to install and maintain a hierarchy of the human over the animal along with a definitional distinction between them. For a human to be an animal, however, is to be an animal among animals, to have one's human life bound up with animal life.[970]

Therefore, alongside the proposal to replace the term 'animalisation' with 'de-animalisation' when describing the ways anthropo-power strips animals of their subjectivity, Butler suggests using *bestialisation* to designate how such power renders animality abject. Butler defines bestialisation as a 'form of loathing, whether directed against oneself or others [with regard to animality]. It is precisely not a description of the life of the animal, but only the subjugation of animality within and by a specific humanist norm based on a cruel disavowal of the relations that support the living human animal.'[971] Distinguishing between animalisation and bestialisation is politically significant because it allows us to resist both the negative connotations associated with the idea of living as an animal and the assumption that animals should be treated *as animals* in the first place. Butler is right to note that such rhetoric cements the bestialisation of nonhuman and human animals alike:

> if humans are asked to differentiate themselves from animals to gain their proper dignity, then they assume, and institute, the indignity of animal life, including their own lives. Under such conditions, striving to be human (and *not* animal) consists in the suppression and degradation of animality. This pathway for achieving a 'dignified' human form thus requires a self-bestialization,

[969] Judith Butler, 'Companion Thinking: A Response', *New Literary History*, vol. 51, no. 4 (2020), p. 690. For Taylor and Orsini's interview, see Sunaura Taylor and Sara E. S. Orning, 'Being Human, Being Animal: Species Membership in Extraordinary Times', *New Literary History*, vol. 51, no. 4 (2020), pp. 663–85.
[970] Butler, 'Companion Thinking', p. 690–1.
[971] *Ibid*., p. 691.

that is, subjecting one's own animality to bad treatment—a vain but adamant effort to disavow the animality that humans share with other animals.[972]

To bestialise, then, might entail relying on a speciesist distinction between the intelligent, sensible human, naturally endowed with value and dignity, and the non-rational, machine-like animal, deemed worthy only of mistreatment. But if, as I have suggested, speciesism and neuronormativity are deeply intertwined, might it also be the case that the bestialisation of the animal operates through the bestialisation of disability and neurodivergence?

Seeking to follow and expand Butler's argument, I reframe the concept of bestialisation to designate the rhetorical and political apparatuses operating at the intersection of neuronormativity and speciesism (and, particularly when bestialisation operates through the figure of bestiality, racism). While Derrida was right to note that animals can never be properly *bête* if *bête* means stupid or bestial, I propose that, in many cases, the bestialisation of animals is deeply entangled with the bestialisation of neurodivergence and, ultimately, with the sovereign bêtise of anthropo-power. In Chapters 5 and 6, I examine two different apparatuses of bestialisation in which animality and neurodivergence are imbricated, even rhetorically co-constructed: neuroreductionist discourse and behavioural models of autism. The first site, in particular, signals the risk that neurodiversity studies and the neurodiversity movement might encourage the *bêtise* of the life sciences, rather than resist it.

That said, there are ways in which reclaiming one's a(û)nimality – namely humanimalising oneself when one is autistic – can help resist the bestialisation of both neurodivergence and animality. For example, in the main chapter from *What Would Animals Say* where she engages with Temple Grandin's work, Vinciane Despret implicitly describes the entanglement of speciesism and neuronormativity through bestialisation. As we have seen, Despret applauds Grandin's ability to leverage her supposed beast-like nature to teach scientists and the public about farmed animals. We have also learned from Despret and Porcher that farmed animals are made stupid in scientific representations. Yet in the encounter with Grandin, the negative value of *bêtise* is inverted: 'The stupidity of beasts [*bêtise des bêtes*] and a human handicap becomes a particular, exceptional, genius talent in being in the world.'[973]

Whatever one may think of Despret's strategy in positioning Grandin as a representative for both autistic humans and farmed animals, her argument highlights the structural potential of bestialisation to be reversed into positive animalisation. Could there be a path to emancipation in reclaiming one's animality, even when that animality has been cast as beast-like stupidity? Despret's reading of Grandin suggests that such subversive gestures are not

[972] *Ibid*.
[973] Despret, *What Would Animals Say*, p. 51.

easily achieved. Yet I contend that neurodiversity studies has every reason to resist the humanist grammar that would otherwise compel us to respond to our dehumanisation by distancing ourselves from animality. In what follows, I return to the neurodiversity concept to show that, from its inception, it has carried the seeds of antispeciesist-posthumanist critique.

2. Neurodiversity as Species Trouble: A Critical Genealogy of Neurotypicality

In the aforementioned paper, Daniel Salomon argues that 'neurotypicalism is fundamentally speciesist'.[974] So far in this chapter, I have identified two core strategies through which humanist thinking intertwines speciesism and neuronormativity: technologies of speciation and apparatuses of bestialisation. In this subsection, I explore speciation as a site for potential posthumanist critique. As we have seen, technologies of speciation do not merely describe nonhuman species as inferior to humans; they also articulate a normative ideal of 'humanity' grounded in the dehumanisation of women, Black, Brown, Indigenous, and otherwise racialised people, as well as disabled people, neurodivergents, the Mad, the impoverished, the infantilised, and so on.

Accordingly, the human of the speciesist order is not just any human. It must satisfy a virtually limitless, often conflicting, and concretely unreachable set of expectations: satisfying demands for capitalist productivity, meeting ideals of bodily autonomy, independence, and ability, conforming to standards of (among others) masculinity, cisheterosexuality, whiteness, Euro-American civility, adulthood, neurotypicality, and bourgeois ethos. As Judith Butler has shown in the context of gender constitution, gender categories are the product of social and bodily performances that must be continually reiterated to sustain 'the appearance of substance'[975]. This performative understanding of gender can be applied to other axes of social categorisation and oppression (among which race, class, ability, species, and so on). In this way, the humanist figure of the (typical) human is nothing short of a phantasmatic figure, whose limitlessness, malleability, and compulsory nature – in the way one speaks of 'compulsory' heterosexuality, able-bodiedness, neurotypicality, etc. – relies on the maintenance (and perpetual reconfiguration) of historical structures of oppression in modern capitalist, colonial, patriarchal, ableist, and speciesist societies.

[974] Salomon, 'From Marginal Cases to Linked Oppressions', p. 49.
[975] *Ibid*., p. 45, p. 192.

This universal figure of the human acquires a speciesist dimension through its assimilation to the supposedly 'neutral' figure of *Anthropos*, which is opposed by dominant rhetorical and material apparatuses to that of the animal. Cary Wolfe refers to this as the 'discourse of species', a concept denoting the linguistic and material '*institution* of speciesism fundamental […] to the formation of Western subjectivity and sociality as such'.[976] Wolfe adds that this institution 'relies on the tacit agreement that the full transcendence of the "human" requires the sacrifice of the "animal" and the animalistic, which in turn makes possible a symbolic economy in which we can engage in what Derrida will call a "noncriminal putting to death" of other *humans* as well by marking *them* as animal'.[977] This means that, in order to even hope to qualify as human, one must not only conform to gendered, classed, raced, aged, ableist, and neuronormative expectations, but also, and perhaps more fundamentally, perceive and present oneself as distinct from the animal.

In this regard, Anahí Gabriela González and Iván Ávila build on Wolfe's concept of the discourse of species alongside Judith Butler's notion of performativity. They explain that '[c]onceiving the species as a performative production means that there is no essence prior to the entities called "man" and "animal", but rather that both poles are constructed through discourses, gestures, and bodily modulations. These fictions emerge from the articulation of discourses and (other) materialities that regulate (and produce) specific bodies and modes of spatiality'.[978] By emphasising the performativity of speciation, González and Ávila aim to deconstruct the speciesist remnants present in numerous bodies of thought from feminism, queer theory, decolonial studies, and biopolitical studies, to (and including) approaches concerned with the deconstruction of the human, such as posthumanism, which have, at times, inadvertently reinforced anthropocentric humanism.[979] They note that when anti-animal speciesism remains unexamined, these approaches tend to rely on speciesist dualisms and assumptions. By rearticulating antispeciesist thinking alongside transfeminism, anti-ableism, and related critical frameworks, González and Ávila offer new cartographies of the discourse of species.

For example, González demonstrates that if the human species is defined along lines of gendered, classed, racialised, classed, and ableist oppression, then escaping the confines of normative gender, race, class, or ability simultaneously entails moving beyond the confines of

[976] See Wolfe, *Animal Rites*, p. 6, emphasis in original.
[977] *Ibid*. Florence Burgat makes a similar claim when she explains that humans do not kill animals in order to eat them, but we eat them in order to kill them. The sacrificial structure is fundamental to the Western humanist ethos. See Florence Burgat, *L'Humanité carnivore*, Paris: Seuil, 2017.
[978] González and Ávila, *Glosario de resistencia animal(ista)*, p. 47.
[979] See González, 'Devenir crip, devenir animal', pp. 41–6.

species.[980] In the same way that Judith Butler's concept of gender performativity was developed to sustain a 'genealogy of gender ontology',[981] González proposes a 'genealogy of species ontology',[982] in which gender and species are fundamentally entangled. From this perspective, it is not coincidental that both Butler and Wolfe mobilise the idea of 'tacit agreement' to describe the social institutions of speciesism and cisheteronormativity respectively.[983]

In the same way that the social ontology of gender performativity produced 'the appearance of substance' of a heteronormative gender binary, the discourse of species 'maintains the absolute *specificity* of the human, which results in superiority and dominance over other living beings'.[984] To resist the oppressive potency of species, González adopts a similar strategy to Butler's in *Undoing Gender* by naming her article 'Undoing Species' [*Deshacer la especie*]. Namely, she seeks to deconstruct the category in such a way that it may no longer operate in reductive or hegemonic fashion.[985] Building on this, I draw on Robert Chapman's work to sketch out a genealogy of the ontology of neurotypicality. I argue that the discourse of normality, through its entanglement with the discourse of species typicality and the tacit agreement to conform to the neuronormative performativity of embodiment, produces the 'appearance of substance' of the normal/abnormal dualism.

a) Neurodiversity as Species Trouble: A Critical Genealogy of Neurotypicality

In their recent work on neurodiversity and capitalism, Robert Chapman articulates a broad genealogy of the concept of normality in relation to, but not limited to, autism. In their PhD thesis, Chapman focused specifically on autism, and while I will also draw from their more recent work, the examples discussed here will primarily concern autism. In the thesis, Chapman explains that autism is 'evaluated […] in relation to a species-standard norm – a norm in comparison to which it is typically deemed inherently lacking in various vital regards.'[986] The various deficits commonly attributed to autistic people are well-known and need not be repeated here. What is most significant is that so-called mental or neurological disorders – in clinical or

[980] See Gabriel Giorgi, cited in Anahí Gabriela González, 'Deshacer la especie: Hacia un antiespecismo en clave feminista queer', *Revista TEL: Tempo, Espaço e Linguagem*, vol. 10, no. 2 (2019), p. 47. I translated this and all later citations of this reference from Spanish.
[981] Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity*, New York and London: Routledge, 1990, p. 45.
[982] González, 'Deshacer la especie', p. 54. For more on this, see Anahí Gabriela González, 'Lecturas animales de las vidas precarias. El "discurso de la especie" y las normas de lo humano', *Tabula Rasa,* vol. 31 (2019), pp. 139–59.
[983] For a mention of 'tacit collective agreement', see Butler, *Gender Trouble*, p. 190.
[984] *Ibid*., emphasis mine.
[985] See Judith Butler, *Undoing Gender*, New York and London: Routledge, 2004.
[986] Chapman, *Autism, Neurodiversity, and the Good Life*, p. 2.

public discourse – are defined by the absence of qualities regarded as 'normal' for the human species.

But is it so self-evident that a set of species-standard or species-typical norms can be naturally derived from biological or psychological sciences and attached to the human species? Nothing could be less clear. Indeed, the constitution of a species-typical norm emerges from the formulation of the 'question of man' – also referred to as the 'anthropological question' in Western modernity-coloniality. This anthropological question arose during the birth of European humanism, when the 'idea of Man' became a scientific, moral, and political ideal, notably alongside the development of the so-called 'Science of Man', to borrow Foucault's term.[987] With humanism came anthropo-power, a systematic regulation of who counts as 'human'. From this perspective, the abilities associated with the 'typical human', such as 'autonomy and agency [came to be] widely seen as the very basis for our distinctly human value and dignity'.[988]

The idea of human value and dignity has long been a central component of the humanist political grammar, including within marginalised human communities. As we have seen, the construction of the normative, hegemonic (hu)man relies on a gesture of foundational exclusion or plastic manipulation of a wide range of subject positions. In this sense, for the (neuro)typical human to be recognised as valuable and dignified, the autistic and neurodivergent subject – or, in psychiatric terms, the disordered subject – had to be made abnormal and dehumanised.[989] In their recent book on neurodiversity and capitalism, Chapman traces the historical roots of this dehumanisation to eugenic ideologies, notably through the contribution of Francis Galton to the early pathology paradigm via what is now called Galtonian statistics.[990] While these ideologies are sometimes interpreted as forms of anti-humanism, given that they devalue certain humans to elevate others – a claim discussed by Patrick M. Whitehead (see Chapter 2) – my posthumanist perspective suggests instead that such practices are in fact constitutive of humanism itself. We can therefore argue that, through these practices, humanism reveals its constitutive inhumanity.

At the core of this process is the concept of species typicality, which rests on an assumption of species, that is, on a discourse of species. The fundamental gesture of exclusion enacted by the regime of humanist species typicality is not directed first at atypical humans, but at the animal. Species typicality thus emerges from the related concept of *species specificity*:

---

[987] See Michel Foucault, *The Order of Things: An Archeology of the Human Sciences*, London: Routledge, 1994.
[988] Chapman, 'Autism', p. 3.
[989] I bracket the 'neuro' in neurotypical here because, as I will show in Chapter 5, the realm of the neurological has come to signify and embody neurodivergent perspectives and positions. This suggests that the neurotypical does not describe itself (or rather, himself) as 'neuro' anything. In other words, the neuro seems to have become the distinct burden of the neurodivergent.
[990] Chapman, *Empire of Normality*, pp. 48–64, 98–106.

the idea of the species as a bounded entity with well-defined traits, from which the question of the proper to Man is derived. As always, humanist constructions of the 'human, properly human' (to borrow Vargas García's term), are deeply entangled with a zooanthroponormative conception that distinguishes the human from the animal.

While it is common to describe an apex of the concept of human dignity in the work of Immanuel Kant,[991] the idea of a species-specific human value

> rang[es] back to Aristotle at least, [and] moral philosophers have typically written of *human* flourishing. This is in the sense that human flourishing is taken to be different from the flourishing of, say, dogs, pigeons, or any other species. In turn, human flourishing is taken on the Aristotelian approach to be species-standard, in the sense that there is a norm for the species that delineates what is good for us and how we should live.[992]

My intention here is not to deny that differences exist between humans, dogs, pigeons, or other animals. Rather, I seek to highlight a contingent and historically situated gesture through which human specificity was constituted and homogenised. This fundamentally speciesist gesture, I argue, also underpins neuronormativity as a technology of speciation. It is precisely because of this speciesist logic – the uncritical belief in species specificity and species typicality – that the pathology paradigm could emerge in the first place. Indeed, as Chapman notes, 'on such accounts, not only is autism taken to inherently diminish the capacity to thrive, but it seemingly becomes imperative that we alter autistic people to make them fit more in line with species-standard conceptions of correct human functioning'.[993] To put it more clearly, neuronormativity is rooted in speciesism.

As Chapman makes clear, analysing neuronormativity through the idea of species specificity signals the articulation of scientific, moral, and political discourse. The core tenet of the pathology paradigm is that neuronormativity, as a socio-political hierarchy, is justified through a set of scientific, empirical norms. Yet the so-called 'empirical' norm of species, invoked by the life and medical sciences to legitimise their apparatuses of hierarchy and normalisation, is not a pre-existing essence awaiting discovery. Rather, it is a socio-historical construction that shapes a normative understanding of the human and excludes all beings who fail to meet its criteria. In this sense, 'the concept of mental disorder, […] has often been explicitly justified in light of falling outside bio-statistical human norms. So theoretical conceptions not just of health but also of the good life also tend to be species-specific and use a species-standard norm as a common metric'.[994]

---

[991] See for example Crary, 'Dehumanization', p. 164.
[992] Chapman, *Autism, Neurodiversity, and the Good Life*, p. 8. Emphasis in original.
[993] *Ibid*.
[994] *Ibid*., p. 9.

Through their deconstruction of moral humanism, Chapman goes so far as to treat 'species-typical' and 'neurotypical' as synonymous.[995] To be neurotypical is to embody the true, essential, and specific nature of the human, namely, to be *properly* human. By extension, to be neurodivergent – or, as one traditionally says in France, 'neuroatypical' – is to be less-than-human. This dehumanisation, as I have shown, relies on apparatuses of bestialisation and mechanistic reductionism, which are often deeply entangled. It is all too common, for instance, to compare disabled and neurodivergent people with animals or robots. These rhetorical apparatuses, which I have begun to examine and to which I return in the following chapters, are part of the performative constitution of species as a supposedly empirical reality.

In a conference presentation on disability and animality, Lori Gruen argues that 'the concept of species is not simply biological or naturally given, and the related notion of species-typical behaviour or functioning does not pick out necessarily immutable traits or characteristics, although judgements about these behaviours or characteristics are based in part on evolved biological capacities'.[996] In other words, the species category and the idea of species typicality tend to naturalise understandings of normalcy, thereby constituting 'a projection of an essential capacity or essential characteristics'.[997]

Gruen refers to this phenomenon as a form of 'species trouble'.[998] In my understanding, the term might first signal the performative construction of species, which anthropo-power mobilises as an oppressive strategy. Second, it captures a tension between animal advocacy and disability advocacy. Gruen observes that mainstream – e.g. non-anti-ableist – animalist movements often rely on the naturalised concept of species to define what constitutes a *good life* for different species and, by extension, to critique the biopolitics of the industrial animal complex. As Sunaura Taylor has shown, many farmed animals are disabled or crippled by industrial exploitation. But Gruen asks, is it really because of their individual disabilities that these animals are denied a good life? Can we justifiably claim that, because they can no longer fly, or walk, or perform other supposedly species-typical functions, they are condemned to a bad life? Gruen identifies a clear ableist logic here: an overemphasis on species typicality as the foundation of animalist critique can reinforce a species-related form of ableism. To counter this, she proposes focusing instead on the mass disablement of farmed animals as a structural instrument of oppression, which in itself forecloses the conditions for living well.

---

[995] *Ibid.*, p. 2.
[996] Lori Gruen, 'Species Trouble: Tensions between Animal Studies and Disability Studies', Conference presentation at *Philosophy, Disability and Social Change 3*, University of Oxford, *YouTube*, 7 December 2022, accessed 19 February 2025. https://www.youtube.com/watch?v=INmDOBl0ASo.
[997] *Ibid.*
[998] *Ibid.*

Species typicality (or species normativity, or species standard) thus functions as a neuronormative technology of speciation, even within animalist movements. It is not an empirical reality but a normative and performative construction that routinely regulates what counts as typical humanity. In Chapter 6, I return to the question of species as a humanist construction and introduce the concept of ethonormativity to describe a tendency to rely on an essentialised, homogenised, and ultimately oppressive logic, whereby species specificity is transformed into species typicality. Ethonormativity names this speciesist-neuronormative apparatus, and Chapter 6 seeks to stay with this *species trouble* by examining critical, queerfeminist, and posthumanist approaches to speciation.

For now, it suffices to note that, under ethonormativity, speciesism operates as a form of ableism and neuronormativity. That said, I concur with Michael Lundblad that not all speciesist acts are rooted in typical ableism if we understand ableism narrowly as a discourse of capacity.[999] A similar distinction can be made with Aiyana Goodfellow, who speaks of 'species-related ableism', which may indicate that not all forms of ableism are species-related.[1000] Still, most forms of speciesism and ableism appear to rely on ethonormativity, namely, the normative regulation of behaviours deemed un/expectable or un/acceptable for given human and nonhuman species.

b) **Neurodiversity as Antispeciesist-Posthumanist Critique**

Following this critical genealogy of neurotypicality, I argue that the concept of neurodiversity can serve as a foundation for antispeciesist-posthumanist critique, relevant to both animalist movements and neurodivergent activism. Indeed, if neurotypicality is a product of ethonormativity – again, a speciesist-ableist or speciesist-neuronormative construct – then neurodiversity can function as a rhetorical and political tool to resist it. When Chapman reiterates the standard definition of the neurodiversity paradigm in their thesis – the idea that '[n]eurodiversity is a natural and valuable form of humanity', and the refusal of the notion that 'there is one "normal" or "healthy" type of brain or mind, or one, "right" style of neurocognitive functioning'[1001] – this definition acquires a new layer of significance. Approached as a rebuttal of the (neuro)normative applications of species specificity and species typicality, the neurodiversity paradigm opens a clear antispeciesist and posthumanist pathway.

[999] See Lundblad, 'Disanimality', p. 783.
[1000] See Goodfellow, 'Personhood is Divergent'.
[1001] Chapman, 'Autism', p. 100.

That said, while Chapman links species typicality with species specificity and briefly mentions animal examples (e.g. dogs, pigeons, and other species), their argument stops short of a full antispeciesist or posthumanist conclusion. Instead, their thesis remains deeply anthropocentric, even as it offers a powerful deconstruction of the humanist norm when applied to marginalised human groups. Ultimately, it does not fully interrogate the speciesism embedded in the humanist approach.

In the collective volume *Neurodiversity Studies: A New Critical Paradigm*, Chapman contributes a chapter on 'Neurodiversity, Disability, Wellbeing', where they reiterate the neurodiversity-as-biodiversity line of thought, ultimately leading to an anthropocentric definition. Chapman explains that, for the purposes of that chapter, '"neurodiversity' will simply refer to the brute fact of neurocognitive variation among the human species'.[1002] Similarly, in 2021, Chapman expanded on the early ecological model of neurodiversity, which could suggest an opening toward more-than-human approaches. Yet this remains far from an antispeciesist or posthumanist position. It becomes evident, as I have sought to demonstrate throughout this chapter, that ecological models do little to counter speciesist assumptions and, in some cases, risk serving as justifications for (neurodivergent) speciesism. This is why I propose expanding on Chapman's early work – as articulated in their doctoral thesis – explicitly along antispeciesist-posthumanist lines.

While Chapman's work opens a clear avenue for antispeciesist-posthumanist critique through the neurodiversity concept, they never claim this critical charge explicitly. Likewise, most contemporary approaches interested in neurodiversity and the more-than-human, like Harkness's, remain mired in speciesism. I therefore propose a new, antispeciesist-posthumanist definition of neurodiversity, inspired by Nick Walker's definition, which I will now paraphrase.[1003] In my understanding, neurodiversity tentatively refers to the diversity of (hum)animal bodyminds, the infinite variation in neurocognitive functioning within and between (hum)animal species. That said, although I believe it is necessary to reframe the current definitions of neurodiversity, I concur with Robert Chapman that we should remain 'sceptical of attempts to offer final definitions of […] neurodiversity [for] any attempt at definition risks being harmful or exclusionary'.[1004]

Building on this, I propose a new, *critical* definition of the neurodiversity paradigm, attentive to the imbrications and intersections of oppression (including speciesism), rather than

[1002] Chapman, 'Neurodiversity, Disability, Wellbeing', p. 57.
[1003] I am choosing to draw on Walker's definition because it partly escapes the common neurocentrism of much contemporary neurodiversity discourse (see Chapter 5).
[1004] Chapman, 'Defining Neurodiversity', p. 219.

on their analogies. Following Walker, I paraphrase, revise, and expand the three fundamental principles of the neurodiversity paradigm:

1. Neurodiversity is a natural and valuable form of (hum)animal diversity.
2. The idea that there is one 'normal', 'healthy', or 'typical' type of brain or bodymind, or one 'right' style of neurocognitive functioning within a given species, is a culturally constructed fiction, no more valid (and no more conducive to a healthy society or to the overall well-being of (hum)animality than the idea that there is one 'normal', 'right', or 'exceptional' ethnicity, gender, ethology, or culture.[1005]
3. The social dynamics that manifest in regard to neurodiversity are not only similar to, but also historically and materially entangled with, the social dynamics that manifest in regard to other forms of human and animal diversity (e.g. diversity of ethnicity, gender, ethology, or culture). These dynamics include the dynamics of social power inequalities, and also the dynamics by which diversity, when embraced, acts as a source of subversive potential.

Proposing a new, antispeciesist-posthumanist definition of neurodiversity and a reconceived understanding of the neurodiversity paradigm in light of the critical genealogy of neurotypicality as species typicality is not intended to erase the humanist history of the neurodiversity movement. Rather, it is meant to trace an alternative genealogy and open a new horizon within the movement. Such a proposal is not only meant to emphasise antispeciesism, which is the focus of this thesis, but also to signal the importance of a more intersectional perspective, where various regimes of oppression are not compared through analogies, but studies in their material and historical entanglement. This is, in my eyes, a fundamental feature of the critical turn in neurodiversity studies. Furthermore, when I call for a more-than-human turn in neurodiversity studies in this chapter, I do not claim that such approaches have never been offered before. As I have demonstrated, however, most contributions to this turn have relied on speciesist ecological models, which are insufficient. The more-than-human turn will be critical, posthumanist and antispeciesist – or it won't be a genuine turn away from neurodivergent humanism. In what follows, I return to the question of the humanism embedded in neurodiversity studies and the neurodiversity movement, offering a proposal: neurodiversity is not (only) a humanism.

[1005] Whereas, in the general introduction to this thesis, I clarified that I do not commonly use the term animality in this sense, I am indeed using it as a substitute for humanity here, namely, as the total sum of (hum)animal beings.

3. Neurodiversity Is Not (Only) a Humanism: Reflections on Political Strategy

To conclude this chapter, I propose that neurodiversity is not a humanism, or at least not only. I am inspired here by a formulation offered by Rosi Braidotti, who similarly contends that 'Feminism Is Not (Only) a Humanism'.[1006] As we know, in their early stages, both feminism and the neurodiversity movement drew on humanist philosophy and a humanist political grammar.[1007] By appealing to humanist ideals of freedom, equality, and emancipation, the feminist movement achieved a range of victories, such as voting rights, reproductive rights, and the right to financial independence. Braidotti thus reports that, across its various waves, feminism has simultaneously critiqued and expanded humanism. Feminist liberal humanism first fought for gender equality and the equal participation of women across all spheres of society.[1008] Feminist socialist humanism drew from Marxist humanism to emphasise class struggle and the perspective of the proletariat.[1009] Feminist Black humanism has highlighted the racism that pervades white feminist movements and brought attention to critical race, decolonial, and Indigenous questions.[1010] Finally, queer and trans inhumanisms, seeking to subvert classical humanism, have emphasised the subversiveness of gender variance and non-heteronormative sexualities, while also emphasising the value of equality and emancipation.[1011]

Since then, greater attention has been paid to the role that humanist thinking has historically played in the construction of cisheterosexist norms, as well as to its entanglement with speciesism and colonial-capitalist anti-environmentalism.[1012] This has led to the development of (trans)feminist posthumanist frameworks for which feminism is *not* a humanism.[1013] While Braidotti observes that the humanist framework can still bring about new forms of social justice, I align with other posthumanist thinkers in emphasising the ongoing need to expand the critique of humanism. I contend that it is high time for such a critique to be formulated in the context of neurodiversity, and I view the ongoing development of critical neurodiversity studies as evidence that such interventions have now become thinkable.

[1006] Braidotti, *Posthuman Feminism*, p. 17.
[1007] With regard to feminism, Braidotti mentions (among others) Simone de Beauvoir's feminist humanism in *Ibid*., p. 21.
[1008] *Ibid*., pp. 23–30.
[1009] *Ibid*., pp. 30–4.
[1010] *Ibid*., pp. 34–8.
[1011] *Ibid*., pp. 38–40.
[1012] *Ibid*., pp. 68–104.
[1013] See Paul B. Preciado, 'Feminism Is Not Humanism', in *An Apartment on Uranus: Chronicles of the Crossing*, South Pasadena: Semiotext(e), 2020, pp. 91–3; Anahí Gabriela González and María Belén Ballardo, 'El transfeminismo no es un humanismo: cruces entre animalidad y género, *Astrolabio: Nueva Época*, vol. 33 (2024), pp. 106–33.

a) **Neurodivergent Humanism in Neoliberal Times**

As I have noted, the neurodiversity movement was founded upon a humanist political grammar, applying the logics of rights and dignity to the struggle for the emancipation of neurodivergent humans. The ecological theories and practices that have shaped the neurodiversity lexicon – for example, biodiversity and its conservation – also rely on a more-than-human perspective that remains grounded in speciesism. In Nick Walker's approach to neuroqueer theory, we see a similar reliance on humanistic psychology, which retains its commitment to humanism even when extended to ecological thinking. In yet another register, neurodivergent veganism may appear to rest, at least in part, on humanism, insofar as it tends to produce black-and-white ethical judgements even when performed through affect-based rather than rationalist modalities.

This explicit resistance to abandoning humanism may be explained by the relatively successful history of the human rights approach within the neurodiversity movement, and beyond. Despite its anthropocentrism, the human rights framework has been effective in raising awareness of neurodiversity and in fostering changes in education and workplaces for neurodivergent individuals.[1014] The close connection between the neurodiversity movement and disability rights movements has played a critical role in this. Similarly, in animalist movements, it is no coincidence that approaches grounded in animal rights and animal liberation have been the most prominent, whether in legalistic and institutional contexts or in anarchist circles.

That said, growing numbers of activists and scholars have become critical of this strategy, which is not only philosophically troubling but may also be strategically limited. In the fourth chapter of her recent *Narrating the Many Autisms: Identity, Agency, Mattering*, titled 'Competence, Communication, and Connection in the Anthropocene', Anna Stenning traces the recent evolution of political strategies adopted by autistic life writers. She observes that:

> While an older generation of autistic life writers has explored how autism is compatible with 'self-sufficiency, authenticity and integrity' (Valente 2016), a newer wave connects any desire for 'self-sufficiency' to the acceleration of neoliberal social practices. In contrast to the impulse to rehumanize disabled people's lives, I am interested in how texts may 're-animate' or reclaim disabled people's lives so that they are no longer regarded as lacking the qualities that typically define human life.[1015]

[1014] Robert Chapman, 'The Future of the Neurodiversity Movement', *Boston Review*, 29 May 2024, accessed 22 April 2025. https://www.bostonreview.net/forum/the-future-of-neurodiversity/.
[1015] Anna Stenning, 'Introduction: Beyond the Neurological Subject', *Narrating the Many Autisms: Identity, Agency, Mattering*, New York and Abingdon: Routledge, 2024, p. 16.

In neoliberal societies, which are characterised by a reconfiguration of capitalism to assimilate and neutralise the critique of traditional social divisions (along lines of class, race, gender, etc.) and hierarchical labour structures (particularly, mechanisation and the absence of creative autonomy),[1016] the strategy of humanisation increasingly converges with assimilation into capitalist structures. This is evident, for example, in the recent mainstreaming of the term 'atypical', where TV series and popular media depict being 'neuroatypical' as quirky or desirable,[1017] thereby erasing the harsher realities of ableist and neuronormative oppression.

This new reality particularly contrasts with earlier stages of capitalism: first, pre-industrial and early industrial capitalism; second, Fordism and the Second Industrial Revolution. During the Fordist era, as Robert Chapman has shown, neurodivergent and Mad populations were only marginally included in the (industrial) job market – only the most normalised and productive fringes of Mad and neurodivergent populations were assimilable – and the Fordist conditions of labour were often a source of disablement, Madness, and neurodivergence.[1018] In earlier stages of capitalist development, as Foucault has shown, Mad and neurodivergent populations went from being confined in general hospitals, prisons and workhouses with the poor and vagrants, to being systematically confined, classified, and medicalised in psychiatric asylums.[1019] In both eras, however, they were largely excluded from productive economic life and treated as degraded forms of humanity. While a detailed exploration of how the neurodiversity movement is currently being co-opted by neoliberal agendas is beyond the scope of this chapter, it suffices to note that recent victories of the neurodiversity movement have often transformed neurodivergent subjects into tamed, humanised diversity: productive members of society, who are tolerated only insofar as they do not disrupt the capitalist order.[1020]

These assimilationist practices align closely with humanist political grammar because they rely on liberal doctrines of individual freedoms and rights, which are central to the humanist ideology. This headway has also generated new forms of political division within neurodivergent communities. With the rise of Aspie supremacy and other intra-community hierarchies, respectability politics, and assimilationist agendas, it is becoming increasingly clear that achieving a 'properly human' status can require sacrificing more marginalised peers. This risk is intensified by the spread of neurodiversity lite and pathology lite approaches in clinical,

[1016] In this regard, see Luc Boltanski and Eve Chiapello, *The New Spirit of Capitalism*, London: Verso, 2005.
[1017] See, for example, the Netflix show *Atypical* (2017-2021) or the French-Belgian show 'HPI', for High Intellectual Potential, (2021-).
[1018] See Chapman, *Empire of Normality*, pp. 84–97.
[1019] See Michel Foucault, *Madness and Civilization: A History of Insanity in the Age of Reason*, New York: Random House, 1965.
[1020] On this, see Ombre Tarragnat, 'La deuxième vague des études de la neurodiversité : penser le tournant critique à partir des représentations médiatiques', *Genre en séries : cinéma, télévision, médias*, vol. 20, forthcoming.

institutional, and economic settings, including in neurodiversity studies itself. Notably, these agendas appear grounded in liberal-humanist assumptions, where neurodivergent emancipation is equated with individual access to the job market, psychotherapy, or positions of power.

b) **Troubling Humanism in Times of Neofascist Resurgence**

However, with the current wave of neoconservative and neofascist administrations in countries such as the United States of America, the United Kingdom, Brazil, Argentina, Italy, and sadly many more, we are witnessing a retreat from EDI politics (short for equality, diversity, and inclusion), and a return to the same-old dehumanising and eugenic discourses central to the pathology paradigm. For instance, since his nomination as Health Secretary of the second Trump administration in 2025, Robert Kennedy Jr. has made a string of ableist and eugenic statements about autism – one describing it as a 'preventable disease'[1021] – and has promised to collect the medical records of autistic US-Americans.[1022] These developments have struck a blow against the neurodiversity movement and its strategy of humanisation.

Similarly, in a blog post from 2025, Norwegian thinker Hannah Håbjørg Størmer reports a recent worsening of the animalisation of autistic people. Indeed, she observes an intensification of dehumanising and animalising violence in societies where fascism is on the rise. She adds that these practices are often justified 'in the name of state safety or a callous capitalist status quo',[1023] and must be resisted. She does not discuss nonhuman animals, which is understandable given the political context she describes. In times of neofascist resurgence, it can be tempting to adopt a 'You do your thing, and I'll do mine' approach, as Michael Lundblad describes.[1024] Given that the humanity of disabled and neurodivergent people is increasingly being challenged – as opposed to conditionally recognised, during early neoliberal phases – advocates of disabled and neurodivergent liberation may be prone to double down on the humanisation strategy, even when that may require discarding the concerns of antispeciesist activists.

Beyond temptations to withdraw into one's own community in the search for safety, care, and stability, such a trend may also function strategically, serving to amplify – as opposed to

[1021] Karoun Demirjian, Dani Blum, and Azeen Ghorayshi, 'Kennedy Calls Autism 'Preventable,' Drawing Ire from Researchers', *The New York Times*, 16 April 2025, accessed 2 November 2025. https://www.nytimes.com/2025/04/16/us/politics/rfk-jr-autism.html.
[1022] Marina Dunbar, 'RFK Jr's Autism Study Collecting Americans' Private Medical Records', *The Guardian*, 22 April 2025, accessed 2 November 2025. https://www.theguardian.com/us-news/2025/apr/22/rfk-jr-autism-nih.
[1023] Hannah Håbjørg Størmer, 'Autistic Animalization', *Umerkelig*, 11 May 2025, accessed 10 February 2026. https://www.umerkelig.no/2025/05/autistic-animalization.html.
[1024] Lundblad, 'Disanimality', p. 772.

diluting – the activist power of our movements. In other words, disabled people may be found to focus their efforts primarily, if not exclusively, on disabled activism, whereas vegan and antispeciesist communities may prioritise 'animals first' tactics. However, I suggest that such a radical division of political struggles should be resisted, and a partial compartmentalisation of activist forces should not preclude the convergence of struggles.

We might therefore follow Dan Goodley et al. and Michael Lundblad in imagining a neurodiversity movement inspired by the dishuman and disanimal perspectives, in which posthumanist and antispeciesist ideals do not compromise the political horizon of the disability movement.[1025] Such a position is explicitly supported by Lundblad, who recognises with Goodley et al., that 'disabled people will continue to fight to be recognized as humans (in the humanist sense and register of humanism) but equally (and simultaneously) are already enacting forms of activism, art and relationality that push us all to think imaginatively and critically about a new epoch that we might term the posthuman'.[1026]

While noting that the approach developed by Goodley et al. remains largely uninterested in matters of animality, Lundblad nonetheless finds their perspective useful for addressing the troubled and troubling affects of disanimality. He calls for a 'strategic humanism', whereby disabled and neurodivergent people may insist on reclaiming their humanity for tactical reasons, while remaining fully aware that this category is neither innocent nor natural.[1027] I concur with Lundblad on the situated relevance of *strategic humanism*, much as a strongly social-constructionist thinker like Judith Butler conceded the situated usefulness of the category 'women' in feminism, even while never endorsing Gayatri Spivak's notion of 'strategic essentialism'.[1028]

However, I believe strategic humanism is particularly useful in the context of vegan politics, where humanism can ultimately be mobilised in the service of nonhuman animals. In that context, and as I have argued before, a neurodivergent veganism – broadened and complexified relative to mainstream forms – may indeed remain a moral imperative for many. However, I have more reservations about deploying this strategy to assert that 'we are, *indeed*, human'. While clear gains can be achieved through such an approach – rights, dignity, recognition, etc. – these gains often come at the expense of more marginalised communities,

[1025] See, for example, Dan Goodley, Rebecca Lawthom, Kirsty Liddiard, and Katherine Runswick-Cole, 'Posthuman Disability and DisHuman Studies', in *Posthuman Glossary*, ed. Rosi Braidotti and Maria Hlavajova, pp. 342–5, London: Bloomsbury Academic, 2018.
[1026] Dan Goodley and Katherine Runswick-Cole, cited in Lundblad, 'Disanimality', p. 767.
[1027] Michael Lundblad, *Disanimality: When Disability, Illness, and Animality Meet*, p. 59.
[1028] See Judith Butler, 'Contingent Foundations: Feminism and the Question of "Postmodernism"', in *Feminists Theorize the Political*, ed. Judith Butler and Joan W. Scott, pp. 3–21, New York: Routledge, 1992, and Gayatri Chakravorty Spivak, 'Subaltern Studies: Deconstructing Historiography', in *The Spivak Reader*, ed. Donna Landry and Gerald MacLean, pp. 203–35, New York and London: Routledge, 1996.

who may never have the luxury of having their claims taken seriously: Mad and racialised people from colonised countries, for example, and even more so nonhuman animals themselves.

Thus, I am not entirely convinced that the recent neoconservative and neofascist setbacks should prompt us to double down on a humanist strategy of humanisation in the face of dehumanisation. This may, in fact, be a counterproductive tactic. Following the reflections of Butler and Spivak, I wonder whether strategic essentialism – or, in the case that occupies us, strategic humanism – risks reinforcing pre-existing, *literal* and *uncritical* forms of species essentialism and humanism.[1029] What if, instead of striving to attain a status that was never designed for us, we began by deconstructing the category itself and its associated ideology?

Certainly, advocating a posthumanist strategy may be more comfortable from the position of a white, privileged autistic person like myself – a citizen of a global minority country, whose humanity is recognised in nearly (if not) all the circles I inhabit, despite my queerness, nonbinary presentation, and neurodivergence. The radicality of my antispeciesist commitment is also enabled by this relative privilege, as my existence is not the primary target of bestialisation. It is a common observation in Black vegan spaces that antispeciesism is often most fervently supported by white people, precisely because they see it as the only political struggle that relies on allyship rather than the direct participation of those most marginalised, which gives them a sense of importance and saviourism.[1030] At the same time, adopting a posthumanist strategy can also be a means of asserting allyship with more marginalised communities, such as Mad people and nonhuman animals, whose lives do not necessarily benefit from the humanisation of most autistic humans, and may even be harmed by it through the detrimental effects of respectability politics.

Therefore, I see it as a moral and political responsibility not to insist on a category that, by its very reclamation, risks harming yet more marginalised communities. Following the Latin American approaches to disability and animality discussed before, there also appears to be significant potential in such a critical outlook on humanism, even when undertaken from more marginalised positions. Furthermore, the fact that neurodivergent and disabled humans can still gain from political efforts rooted in humanist frameworks does not justify impeding the work of antispeciesist movements and nonhuman animals' acts of resistance.

As we have seen in this chapter so far, there are all kinds of troubles haunting the neurodiversity movement: an animal trouble, in the form of disanimality, a species trouble, in

[1029] Gayatri Chakravorty Spivak and Sarah Harasym, *The Post-Colonial Critic: Interviews, Strategies, Dialogues*, New York: Routledge, 1990.

[1030] Such a perspective is problematic because it undermines the important acts of resistance that nonhuman animals perform every day in zoos, circuses, or slaughterhouses. However, while those actions do matter, it is also true that without consistent and coordinated efforts by human activists, animal oppression may never come to an end. Humans have a particular responsibility in dismantling speciesism and the animal industrial complex, but this should not be achieved through logics of white human saviourism.

the form of the strategic ambivalence of the species category, and a trouble with humanism, in the form of a fraught relationship with a philosophical and political framework that remains productive while simultaneously causing undesirable harm (and, to some extent, being the ultimate root of neuronormative oppression). How, then, are we to inherit these troubles as we reimagine the shapes and directions of our field of studies and movement? This problem is complicated by the fact that extricating oneself from one kind of trouble – untroubling oneself – often entails getting into another. Resist humanist anthropocentrism by reclaiming animality, and you encounter disanimality. Repress disanimality through vegan politics, and you are once again haunted by the ghost of humanist political grammar.

Where, then, should we arbitrate or draw the line between frameworks that might all be productive and warranted in their own ways, yet may also appear mutually exclusive? Reminding ourselves of our commitment to non-innocence, it may be best not to arbitrate too hastily or abstractly. That said, I believe there is moral value in confronting one's own demons to support other communities, *especially* when doing so requires sacrificing some of the comfort afforded by the political struggles undertaken by one's community.[1031] To stay with the trouble, then, does not mean turning any of these approaches into dogma and discarding alternative perspectives. On the contrary, the various kinds of trouble outlined here should prompt us to cultivate imaginative ways of inhabiting these frictions, rather than attempting to resolve or erase them altogether.

This could involve actively placing oneself in uncomfortable situations of disanimality, even when one could simply enjoy the privilege of humanisation. One example of this can be found in practices of therianthropy and theriomorphic identities, which I discuss in Chapter 6. We may find that this is productive, even if it may look like temporarily stepping back from efforts to be accepted as a neurodivergent person or pushing against one's neurodivergent agenda in the short term. As I have argued throughout this chapter, neurodivergent humans cannot be free until nonhuman animals are free too. Certainly, becoming-animal may make one appear more autistic and less human, but there is power in these 'weird potentials' (to borrow from Walker's phrase). From a neuroqueer perspective, this a(û)nimality may ultimately contribute to a broader vision of neurodivergent liberation by normalising humanimal identities, presentations, and behaviours. While this is only my personal conviction, I hope it may convince others to stay with this species trouble. Such a gesture is not only uncomfortable; it is also potentially radical.

[1031] This is something I have learned from Savannah J. Kilner in an autistethnographical piece which tells her experience of sacrifice and accommodation as an autistic mother of an autistic child committed to Palestinian liberation. See Savannah J. Kilner, 'Empire of Demands: Sacrifice and Accommodation at the Interstices of Personal and Planetary Crisis', *Feral Feminisms*, no. 17, forthcoming.

Similarly, there is value in staying with the *trouble* – in French this time. In French, the word '*trouble*' is polysemous, and one of its meanings is 'disorder', as in the psychiatric framing of mental disorders [*troubles mentaux*]. In this regard, some neurodivergent communities do not hesitate to sacrifice Mad people on the altar of assimilation, hoping to distinguish themselves from their supposedly less human and more pathological counterparts. 'They, not us, are properly mad.' 'They have disorders, not us.' Through such a rhetorical gesture, it appears that humanistic perspectives risk not only echoing speciesist logics, but also sanist ones.

In my experience, encountering the neurodiversity movement led me to reject the idea that I have a disorder, even while remaining highly sympathetic to the Mad pride movement. In France, where the neurodiversity perspective is still nascent and often dominated by neurodiversity lite discourse, I am constantly struck by the way my neurodivergent peers describe 'having an autism spectrum disorder', but rarely so as a subversive gesture of reclamation. Whereas a neurodiversity-affirming perspective would call for a different language, I have to remind myself that my temptation to police this language – though I usually refrain – risks alienating Mad people, for whom distancing oneself from disorder (or *trouble*) may not be an option. Should we not, therefore, reclaim our *troubles*, our disordered Madness, as a form of resistance?

'Staying with the trouble' is a famously posthumanist perspective, but it can also become a queer practice when we choose to claim trouble, to sow further trouble. To *trouble*, as a verb, entails reclaiming and subverting the abject signifier, using it to disrupt the hegemonic order. In order to resist neurotypicalism, sanism, and speciesism, I contend that our responsibility is to support and celebrate the positionalities of the most subordinated: the bestialised, the animal, the Mad, the neurodissident. Let us humanimalise ourselves. Let us be troubled – and troubling.

CONCLUSION

This first chapter of Part II, which is positioned at the centre of the thesis's structure, constitutes the central part of this study. It mapped the existing literature on autism and animality, highlighting the unique contributions made by various perspectives on these topics, but also the potential tensions between them, such as disability and animality, critical animal studies and posthumanism, and, perhaps most importantly, between ecological and animalist frameworks. To do so, it introduced (or further developed) the main analytical frameworks and arguments mobilised throughout the thesis, such as trouble, non-innocence, disanimality and a(û)nimality, technologies of speciation, apparatuses of bestialisation, and the de/humanisation dialectic.

In terms of thematic focus, this chapter also examined some of the primary sites where autism and animality meet, namely, the affective and political bonds between autistic humans and nonhuman animals and the co-construction of speciesism and neuronormativity. Based on these investigations, the chapter emphasised the risks involved with resisting the dehumanisation, animalisation, and even bestialisation of autistic humans through strategies of humanisation. Instead, the chapter favoured an antispeciesist-posthumanist reconfiguration of neurodiversity theory and politics, arguing for a joint deconstruction of speciesism and neuronormativity.

The chapter also initiated a three-step genealogical inquiry into neurodiversity studies' engagement with the life sciences, starting with biodiversity and its conservation. This thread constitutes the main horizon of the next two chapters, which focus respectively on neurological discourse and behavioural/ethological models. Through these three steps, we find that, unless neurodiversity studies embraces an antispeciesist and posthumanist perspective, autistic humans, nonhuman animals, or both, face reductionist and pathologising consequences.

CHAPTER 5 – TOWARDS A MORE-THAN-NEUROLOGICAL TURN IN NEURODIVERSITY STUDIES

INTRODUCTION

The nervous system has often been described as the unique feature that singularises animal life from other forms of life. In this sense, the emphasis on brains or nervous systems in neurodiversity – which we might call neurocentrism – might at first appear as a relevant and productive way to engage in a more-than-human or animal turn in neurodiversity studies. However, this chapter demonstrates that neurocentrism often leads to problematic forms of neuroreductionism (the reduction of lived experience to – an often mechanistic – neurology), neuroessentialism (the idea that one's essence is an innate and immutable effect of one's neurology), and neuro-identitarianism (the foundation of neurodivergent politics on a notion of neurological subjectivity or identity). More importantly, I show that these phenomena encompass reductionist theoretical gestures that hurt neurodivergent humans and nonhuman animals alike due to their historical co-construction. I thus call for a more-than-neurological turn in neurodiversity studies. By engaging with sociological and theoretical research on the neurological turn in neurodiversity and feminism, I show that while neurocentric accounts cannot be entirely rejected from neurodiversity studies, they need to be subverted and grounded in new, anti-reductionist and posthumanist approaches to neurology. Moreover, drawing on the perspective of animal phenomenology, I show that, in order to achieve a more-than-human turn in neurodiversity studies, it may also be necessary to decentre neurology in favour of a more holistic perspective. I close the chapter by calling for the development of new figurations of embodied difference, grounded, for example, in ethology.

I — THE TROUBLE WITH THE 'NEURO' IN NEURODIVERSITY

Neurological discourse, as we will see, has played a decisive role in the development of the neurodiversity concept, neurodiversity studies, and the neurodiversity movement. This section examines the various implications (and risks) of neurological discourse on the history,

language, and politics of neurodiversity. With this in mind, it calls for new, more accountable forms of engagement with the neurosciences.

First, I examine the historical neurological turn that made the birth of the neurodiversity concept possible. I demonstrate that, more than a mere centrism, much contemporary neurological discourse in neurodiversity studies and the neurodiversity movement champions a form of neuroreductionism. As an example, I return to Judy Singer's sociological study of the birth of the neurodiversity movement[1032] and highlight some of the conceptual and political limitations of neuroreductionism, especially in relation to bestialisation. I draw inspiration from critiques of neuroreductionism provided by Erin Manning and Brian Massumi.[1033]

Then, through a case study of the non-innocence of metaphors in the theory of monotropism and its reception, I focus more specifically on linguistic and rhetorical matters. I show that the situated knowledges of autism developed by autistic people do not escape the risks of self-pathologisation. Particularly, I examine a series of metaphors for autistic neurocognition drawn from physics and plant life – starting with the concept of tropism – which carry a complex baggage of mechanistic thinking that echoes the current neuroreductionist trend. I caution against uncritical uses of reductionist metaphors to describe so-called 'monotropic brains' and call for a more phenomenological perspective on autism.

Finally, drawing on the sociological analyses of Fernando Vidal and Francisco Ortega, I evidence some of the political consequences of neurological discourse for the development of the neurodiversity movement: not only neuroreductionism, but also neuroessentialism and neuro-identitarianism. More than a complete rejection of neurological discourse, I thus call for a *more-than-neurological* turn in neurodiversity studies, which implies, first, a subversion of neurology and neurological discourse.

1. From Neurology to Neurodiversity: Neuroreductionism as an Apparatus of Bestialisation

I begin this section with a historical examination of neurology as the main rhetorical and conceptual foundation of neurodiversity. With this subsection, I seek to demonstrate that overemphasis on the brain – not only neurocentrism, but neuroreductionism – results in a problematic mechanisation of lived experience and a bestialisation of neurodivergence.

[1032] See Singer, *The Birth of an Idea.*
[1033] See Erin Manning and Brian Massumi, 'Coming Alive in a World of Texture: For Neurodiversity', in *Dance, Politics and Co-immunity*, ed. Gerald Siegmund and Stefan Hölscher, pp. 73–96, Zurich and Berlin: Diaphanes, 2013.

a) Neurology as a Foundation of Neurodiversity

As we saw in Chapter 4, the neurodiversity concept was developed in the late 1990s, primarily for political reasons, and initially centred on autistic advocacy. This followed the development of the neurological approach to autism, which emerged in the 1960s. This neurological turn occurred in response to the way autism was being described in medical terms at the time.[1034] Autism was historically described in psychoanalytical terms as the result of the coldness of so-called 'refrigerator' parents, most often mothers.[1035] The rise of neuroscience in the late twentieth century led to its reconceptualisation as a 'neurodevelopmental disorder', a kind of disorder that becomes visible during childhood in relation to the development of the nervous system. This anchoring of autism in neurology also opened the way to the idea of hereditary, genetic transmission.

Turning back to Judy Singer and her early conceptualisation of neurodiversity can therefore help us better understand the role that neurology played in the development of the concept. Although Singer disagreed with the pathologisation of autism, she suggested that this paradigm shift towards neurobiology within the medical sciences was a good thing for autistic people. For instance, in the published version of her Honours thesis, she rejoiced over autism being newly identified as a '"hardwired" neurological difference, not a personality flaw'.[1036] In her desire to anchor autism in the stability of neurogenesis, away from the pathologising regimes of psychoanalysis and behaviourist therapy, Singer somehow contributed to the representation of autism as a result of the hardwiring of the brain. In my view, this image has regrettably become all too common in the autistic community (and in neurodivergent communities at large). Indeed, it is not uncommon for autistics and other neurodivergent people to explain away their neurodivergent or disabled experiences by simply saying 'My brain is just wired that way'.[1037] I will return to these matters of discourse later, but it is already useful to note that such a rhetoric functions as if no environmental conditions or subjective intentionality came into play, as if to state the nature of the processes in your brain exhausted the description of the behaviour or experience in question.

[1034] See Bernard Rimland, *Infantile Autism: The Syndrome and Its Implications for a Neural Theory of Behavior*, New York: Appleton-Century-Crofts, 1964.
[1035] Kanner, 'Autistic Disturbances', pp. 217–50; Bruno Bettelheim, *The Empty Fortress: Infantile Autism of the Birth of the Self*, New York: The Free Press, 1967. This emphasis on mothers reveals a pervasive effect of structural sexism in scientific conceptions.
[1036] Singer, *The Birth of an Idea*, p. 9.
[1037] Able Magazine, 'Neurodiversity: Is Your Brain Wired Differently? Mine is', n.d., accessed 24 March 2024. https://ablemagazine.co.uk/neurodiversity-is-your-brain-wired-differently-mine-is/; Melina, 'My Brain is Wired Differently and That's Okay, by Melina', *NVLD Project*, 19 January 2023, accessed 24 March 2024. https://nvld.org/my-brain-is-wired-differently-and-thats-okay-by-melina/; Jen Slaton, 'Are You Neurodivergent? Understand How Your Brain is Wired', *Witi*, 7 February 2021, accessed 24 March 2024. https://witi.com/articles/1879/Understand-How-Your-Brain-is-Wired---Neurodiversity-is-the-New-Normal/.

However, it is not certain that neurodivergence always refers – or can be reduced – to neurological wiring. This is already uncertain for autism, whose reducibility to well-defined neurological-based structures remains to be supported by scientific consensus.[1038] Besides, while neurodiversity originally centred on autism – which is indeed considered a *neurodevelopmental* phenomenon today – it now encompasses a wide range of hereditary and acquired forms of being-in-the-world, including ADHD, dyslexia, depression, Tourette syndrome, Down syndrome, obsessive-compulsive disorder, and many more. Although some of these forms of neurodivergence have primarily social or environmental origins, the term 'neurodivergence' continues to be used, literally evoking a *neurological* divergence. Yet behind this neurocentrism, there is rarely a precise scientific examination of the neurological dimension of these neurodivergences. One exception may be found in the Intense World Theory, which, as we saw in Chapter 1, was partly devised by autistic people and grounded in neurobiological data. My intention is not to suggest that this is a problem in itself; rather, this foregrounds the rhetorical and political function of neurological discourse and its limitations.

So while the neurodiversity movement and paradigm seek to depathologise autism and other forms of neurodivergence, their reduction of neurodivergent experiences to brain wiring amounts to a form of neuroreductionism. The idea that the way my brain is wired simply enables or prevents me from carrying out certain tasks, or that this neurological makeup exhausts the description of the lived experience of autism, depression, or obsessive-compulsive disorder, is tantamount to denying the role of an individual's social context and subjectivity in the expression of their neurodivergent traits. According to Vinciane Despret, reductionist determinism not only confiscates subjectivity and freedom, but also – and perhaps even more problematically – confiscates responsibilities and skills, which are core elements in the social and political negotiation of 'relational life'.[1039]

To be clear, neither Singer nor most neurodiversity scholars ever intended for neurodivergence to be understood through the lens of biological determinism.[1040] As for Nick Walker, he explains that this use is at odds with the neurodiversity paradigm and thus represents a 'commonplace' misreading among neurodivergent people.[1041] Yet when I observe the prevalence of neuroreductionist discourses within neurodivergent communities, I cannot help

[1038] This is the argument Simon Cushing makes in 'Autism: The Very Idea', in *The Philosophy of Autism*, ed. Jami L. Anderson and Simon Cushing, Lanham and Plymouth: Rowman and Littlefields Publishers, 2013, p. 34: 'Furthermore, what we do *not* have here is anything like the evidence we would want to claim that there is a uniquely identifiable autistic brain that explains and unifies the disparate elements of autism, thereby justifying the label of autism as a natural kind of phenomenon.'
[1039] Despret, *The Dance of the Arabian Babbler*, p. 38.
[1040] Singer, *The Birth of an Idea*, p. 40.
[1041] Walker, *Neuroqueer Heresies*, p. 55.

but think that the problem lies, at least in part, in an insufficient *theoretical* construction within neurodiversity studies itself.

In my view, there are several reasons for the pervasiveness of neurocentrism in neurodiversity studies and the neurodiversity movement. On the one hand, there is a kind of lock-in effect at work, whereby the repeated use of a particular discourse or practice makes it increasingly difficult to break away from it or to develop alternative discourses and practices. On the other hand, progressive political movements have historically had a fraught relationship with the sciences, shaped by a fear of essentialism. Biology has, after all, been mobilised to justify classist, sexist, racist, ableist, and speciesist ideologies, among others, and there are good reasons to remain suspicious of it (see more in section II of this chapter).

b) **Neuroreductionism as Bestialisation**

Indeed, the focus on neurology often implies proximity to, if not complicity with, the biological discourses of neurology and the sciences of autism, whose priorities lie less in the celebration of neurodiversity than in the development of new treatments to 'cure' neurodivergent people. In the case of psychiatry, the paradigm shift from psychoanalysis to neuroscience calls for nuanced assessment. Admittedly, psychoanalysis proved pathologising, and the advent of neuroscience made it possible to avoid that specific mode of pathologisation. But does this mean we should grant the new paradigm a blank cheque, an agreement in principle?

My concerns are both epistemological and political. At the epistemological level, I am wary of the hegemony of physicochemical explanations, which early twentieth-century theoretical biologists had already criticised and opposed to the hermeneutical power of understanding.[1042] While *explanations* of autistic neurology may indeed shed light on autistic sensory perception, emotional mechanisms, or behavioural patterns, genuine *understanding* cannot occur without taking into account the lived experience of these patterns and affects, which are holistic in nature. Such was precisely the critique advanced by Jakob von Uexküll and Kurt Goldstein against the biological sciences of their time, whose reliance on analytical, mechanistic, and reductionist methods failed to adequately engage with the *biological* nature of living organisms, particularly animals (Chapters 1 and 2). These temptations are also found in contemporary sciences, where the desire for a unified biology (often under the auspices of the physicochemical) is coupled with a renewal of mechanistic and deterministic tendencies.[1043]

[1042] We owe the genesis of this important philosophical distinction to Wilhelm Dilthey. See Rudolf Makkreel, 'Wilhelm Dilthey', *The Stanford Encyclopedia of Philosophy*, last modified Spring 2021, accessed 24 March 2024. https://plato.stanford.edu/archives/spr2021/entries/dilthey.
[1043] See Hoquet, *Le Nouvel Esprit scientifique*.

I suggest returning to a phenomenological approach to animality might at least help us escape the pitfall of neuroreductionism.

The political problem with neurocentrism and, even more so, neuroreductionism, is that they might risk dehumanising neurodivergent humans while simultaneously animalising nonhuman animals. As we saw in Chapter 4 with Alice Crary, dehumanisation and animalisation are always entangled and can be thought together here via the concept of bestialisation. Indeed, neurocentrism and neuroreductionism inhabit the dangerous terrain of mechanistic thinking, which, already in Descartes, reduced animals – both human and nonhuman – to machines animated from the outside. While Descartes claimed that humans possessed a soul, whereas animals did not, thereby crystallising a set of dualisms (animal/human, body/mind, *res extensa*/*res cogitans*), he never succeeded in adequately explaining the articulation of mind and body in humans. Mechanistic understandings of embodiment have pervaded parts of biology to this day, to the point that neurocentrism and neuroreductionism sometimes end up framing neurodivergent people as less-than-subjects, and in particular as animal-like automata.[1044] Neurodivergent actions and experiences, rather than being seen as the outcome of an agential and (at least minimally) intentional negotiation with one's environment and situation – something reserved for neurotypical humans – are understood as reactions triggered by external stimuli of a physical or chemical nature. In describing brains and neurological phenomena, neurocentric conceptions thus tend to reduce neurodivergent experience and behaviour to their physicochemical explanations. It is as if they were mere components in a larger mechanism: the individual's pathology.

Like the scientific apparatuses designed to study animals which I examine in Chapter 6, the rhetorical device of neuroreductionism renders neurodivergent people stupid [*bêtes*]: it bestialises them. Through this process, the lived experience of neurodivergent people is portrayed as so foreign and ungraspable that one would be justified to question whether it exists in the first place. Neuroreductionism, in short, deprives both neurodivergent humans and nonhuman animals of their intentionality and operates as an apparatus of bestialisation.

[1044] For example, in modern mechanistic zoology, animals are no longer considered to be animated from the mechanical and physical laws of nature – as was the case in the original Cartesian version – but from their reflexes. This is another form of mechanism. It is crucial to note, however, that the history of animal sciences is not linear: Benedetta Piazzesi explains that, between Cartesian mechanism and current-day mechanism, the life sciences have embraced a large range of positions, sometimes explicitly opposed to mechanism, such as sensualism and vitalism. See Piazzesi, *Del governo degli animali*, pp. 14–16. Moreover, the scientific conceptions that underpinned the early stages of zootechnical exploitation, rooted in 'the care-health-utility circuit' (*Ibid*., p. 141), also relied on a rejection of the mechanistic conception. For this reason, Piazzesi concludes that 'mechanism proves to be an insufficient theoretical framework for explaining and implementing the exploitation of animal bodies' (pp. 138–9). As such, while it is not my aim to reiterate 'the stereotype of a modernity dominated by Cartesian mechanistic thinking, which sees the denial of animal sensitivity and subjectivity as the cause of the domination that human beings still exercise over nature today' (p. 9), I mobilise the concept of mechanism in this thesis to describe reductionist epistemologies that, in one way or another, emphasise biological mechanisms over subjective phenomena.

In the section of an essay titled 'Against neuroreductionism', philosophers Erin Manning and Brian Massumi argue that 'beginning and ending the conversation with brain states sideline problematics of a kind that might be considered phenomenological – where the field of immediate experience is always-already subjective'.[1045] They further suggest that 'the neuro is inherently a therapeutic concept contrived with and for the pathological', a tool that is ill-suited to the political advocacy that underpins neurodiversity studies and the neurodiversity movement. In their view, therefore, 'the neuro remains profoundly neuro*typical*'.[1046]

Manning and Massumi's point helps us understand the harm that neurocentric conceptions have inflicted on individuals whose divergence is not (or not only) neurodevelopmental. Acquired forms of neurodivergence, such as depression and anxiety, which are explicitly acknowledged and embraced by the coiner of the term 'neurodivergence', Kassiane Asasumasu,[1047] are all too often sidelined in favour of neurodevelopmental divergences, such as autism and ADHD, or reduced to their physicochemical dimensions. Treating depression solely with chemicals, for example, neglects the social and psychological dimensions at play and constitutes a form of neuroreductionism. It is also profoundly depoliticising.

The pair of philosophers explain that the distinct 'mode of existence'[1048] characteristic of autism, to take one example, differs from that of allistics. It is marked, among other things, by 'autistic perception'.[1049] According to Manning, autistic perception can be defined less by a utilitarian outlook on the world – characteristic of the neurotypical – than by a transversal and non-segmented perception of environmental fields. For Manning and Massumi, this difference raises 'an *ecological* question concerning how diversities co-inhabit the same field of becoming-human'.[1050] This holistic and ecological approach departs from the epistemological and methodological commitments of neuroreductionist thought, turning instead to affects and lived experience, and to their inherent entanglement with agents beyond the brain.

In the context of more-than-human divergence, I also align with Manning and Massumi on the importance of beginning with lived experience, which entails complex and entangled forms of becoming-animal and being-in-the-world. While nervous systems are arguably one of the material signs of animality, it may appear that neurocentrism fails to account for the

[1045] Manning and Massumi, 'Coming Alive in a World of Texture', page unknown. A revised version of this piece was later published in Erin Manning and Brian Massumi, *Thought in the Act: Passages in the Ecology of Experience*, Minneapolis and London: University of Minnesota Press, 2014. Some of the citations by Manning and Massumi used throughout this chapter were removed from the final version and may not reflect the authors' current views. They nonetheless provide useful arguments to my critique of neuroreductionism.
[1046] *Ibid*.
[1047] Asasumasu, 'PSA from the Actual Coiner of "Neurodivergent"'.
[1048] Manning and Massumi, 'Coming Alive'.
[1049] Manning, *Always More Than One*; *The Minor Gesture*.
[1050] Manning and Massumi, 'Coming Alive', emphasis in original.

complexities of animality. Simultaneously, it may also be ill-equipped to account for neurodivergence itself. If neurocentrism too often operates in a neuro*typical* way, it is partly because it fails to strike a balance between the stability and certainty of the innate and the complexity and contingency of the acquired. In doing so, it overlooks the queer and subversive potential for difference inherent to contingency, in the ecologies of perception and movements that characterise lived experience. In this regard, neurodivergence and animality appear profoundly entangled in, and harmed by, the logic of neuroreductionism.

While I am fully sympathetic to Manning and Massumi's critique of neuroreductionism, it is important to bear in mind that scientific paradigms carry no ethical or political value in themselves. Instead, they are epistemological tools that can be deployed to advance sometimes antagonistic political interests. Never fundamentally innocent or guilty, emancipatory or conservative, they adapt to the dominant logic of their field and the purposes to which they are put. In the medical and psychiatric domains, it seems clear that the curative horizon remains hegemonic. That said, one may still wonder whether it is possible to recover some of the field's concepts beyond neuroreductionism (see subsection 1.3 in this chapter). In the next subsection, I turn to the role of more-than-human metaphors for autistic neuro/cognition in the development of autistic situated knowledges, particularly those drawn from physics and plant biology. I show that while such metaphors can play a strategic role in specific political contexts, they can also, at times, reinforce pathologising and reductionist figurations.

2. Situated Knowledges and the Science Question in Autism: More-Than-Human Metaphors of Autistic Neurology in the Theory of Monotropism

A guiding thread in Part II of this thesis is the relationship between neurodiversity studies and the life sciences (particularly the discourses of biodiversity, neurology, and ethology). With the following case study, I seek to exemplify the kind of problems that arise when neurodiversity studies and the neurodiversity movement engage with the life sciences only implicitly, without acknowledging the critical epistemological and political questions that follow from this encounter.

For a long time and to a large extent still today, autistic people have been equipped with little more than pathologising and reductionist theories about our alleged deficits and abnormal cognitive, behavioural, and affective traits, offered as tools of self-identification. Autism, as we know, did not always exist as a category of individual and community self-identification, but

was reclaimed in the aftermath of a decades-long history of scientific elaborations within the fields of psychiatry and psychology. Neurodivergence has long appeared as a collection of traits whose very coherence relies either on the search for a single aetiology or attempts at formulating an encompassing theory.

Even today, autism science is marked by a widespread desire for the comforting and objective truth of aetiology, meant to solve, at last, the *mystery* that autism is often portrayed to be. This search for origins as a way to finally resolve the puzzling nature of autism has faced increasing objections from the autistic community.[1051] Autistic people have called on scientists to focus on what actually matters to them, such as ways to help them flourish at every stage of their lives, e.g. through improving sensory experiences, life skills, and public services.[1052] These failures of mainstream autism science can be attributed to a lack of interest in the input of autistics regarding their own experiences and testify to pervasive and 'systematic power imbalances'.[1053]

More and more, though, first-hand autistic experience crystallises into new ideas, models, and theories emerging within the autistic community or developed by autistic scientists. Recently, new models and theories of autism designed by autistic people themselves, like the Intense World Theory[1054] or the theory of Monotropism,[1055] have drawn significant interest and approval within the autistic community, especially because they highlight traits of autistic experience that the community regards as meaningful. This modest yet growing agency of autistic communities in shaping autism science has given autistic people greater influence in setting the agenda for both scientific and terminological debates. Summed up by the slogan 'nothing about us without us', this approach underscores the urgency of beginning with autistic people's insights, contributions, and needs when developing knowledge about autism.

The emerging phenomenon of autism science produced by autistic people can be described as an example of what has been called 'situated knowledges',[1056] a notion often used to argue that minority or subjugated experiences are better understood by those who experience

---

[1051] See Roy Richard Grinker and David Mandell, 'Notes on a Puzzle Piece', *Autism*, vol. 19, no. 6 (2015), pp. 643–5.
[1052] Elizabeth Pellicano, Adam Dinsmore, and Tony Charman, 'What Should Autism Research Focus Upon? Community Views and Priorities from the United Kingdom', *Autism: The International Journal of Research and Practice*, vol. 18, no. 7 (2014), pp. 756–70; Chloe Silverman, 'What Do Autistic People Want from Autism Research?', *Behavioral and Brain Sciences*, vol. 42, no. e111 (2019).
[1053] Fergus Murray, 'Autism and Scientism: Why Science is not Always the Best Way to Learn About Autism', *Oolong*, 7 January 2022, accessed 22 April 2025. https://oolong.medium.com/autism-and-scientism-b7fd4c9e08a6.
[1054] Markram and Markram, 'The Intense World Theory'.
[1055] Dinah Murray, Mike Lesser, and Wenn Lawson, 'Attention, Monotropism and the Diagnostic Criteria for Autism', *Autism*, vol. 9, no. 2 (2005), pp. 139–56.
[1056] Donna J. Haraway, 'Situated knowledges: The Science Question in Feminism and the Privilege of Partial Perspective'. In *Simians, Cyborgs and Women: The Reinvention of Nature*, New York and London: Routledge, 1991, pp. 183–201.

them first-hand. In this sense, instead of seeking the origins of autism as a path towards new treatments or cures, these emerging theories have provided autistic people with new tools to understand their experiences in ways that are more meaningful and encompassing. Moreover, the notion of situated knowledges has led some to suggest that 'in the absence of really solid [autism] science, [anecdotal information] is often the best we can get'.[1057] Indeed, for anyone wishing to learn more about autism, the most valuable advice remains to begin with the writings of autistic people and to engage in conversation with them.[1058]

The idea of 'situated knowledges', taken from the field of feminist epistemology, is often turned into risky forms of '"identity" politics and epistemologies'[1059] according to which not only is it necessary to be *of it* to say something true *about it*, but it is also sufficient. Because I am autistic, I must know what autism really is. Nonetheless, because current language shapes what can be thought, autistic-led research does not automatically bring about a radical or definitive break from problematic conceptions. In other words, first-hand experience is not a perfectly calibrated mechanism that instantly produces bias-free self-perception and self-knowledge. In addition to this structural non-linearity of the translation of lived experience into knowledge, there is the fact that one is never only autistic or allistic, but also potentially feminised (or not), racialised (or not), etc. In this way, as queer, intersectional, and antiracist feminists have taught us, the language we use to defend our causes should not homogenise our identities and communities, as if the category 'women' described a monolithic reality in the real world.[1060] Instead, it matters to see that language participates in the construction of a social ontology and should therefore be engaged cautiously, if not somehow deconstructed.

Similarly, as Donna Haraway reminds us, '[v]ision is *always* a question of the power to see – and perhaps of the violence implicit in our visualizing practices. With whose blood were my eyes crafted? These points also apply to testimony from the position of "oneself". We are not immediately present to ourselves.'[1061] Rather, the production of self-knowledge is shaped by various path dependencies, increasing the risk of pathologising discourse within situated knowledges of autism. Relying too readily on the idea of epistemic privilege for everyone concerned with a given experience or material condition – such as autism – thus risks overlooking the diversity of epistemic and conceptual positions, as well as the debates, within that community. It also assumes a kind of purity of mind and language among its members. In

[1057] Murray, 'Autism and Scientism'.
[1058] *Ibid*.
[1059] Haraway, 'Situated Knowledges', p. 192.
[1060] See The Combahee River Collective, 'A Black Feminist Statement', *Women's Studies Quarterly*, vol. 42, no. 3–4 (1977), pp. 271–80; bell hooks, *Ain't I a Woman? Black Women and Feminism*, London and Winchester: Pluto Press, 1982; Kimberle Crenshaw, 'Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color', *Stanford Law Review*, vol. 43, no. 6 (1991), pp. 1241–99; Butler, *Gender Trouble*; Haraway, 'A Cyborg Manifesto'.
[1061] Haraway, 'Situated Knowledges', p. 192

a world shaped by pathologising and ableist autism science, discourse, and representation, identifying as autistic has therefore meant navigating between the need to put lived experience into words – as a means of gaining recognition and fostering social change – and the nearly unavoidable risk of self-pathologising by adopting problematic pre-existing images, metaphors, concepts, or frameworks. What kinds of self-knowledge, then, can autistic people actually claim?

In fact, Donna Haraway's notion of situated knowledges was meant to resist such easy and hazardous politics and epistemologies rooted in identity. She emphasises that privileging 'the positionings of the subjugated' in the pursuit of objectivity rests on their locatability within systems of power, that is, on the ease with which they tend to be 'called into account' and made 'answerable' or 'responsible'[1062]:

> The positionings of the subjugated are not exempt from critical re-examination, decoding, deconstruction, and interpretation; that is, from both semiological and hermeneutic modes of critical enquiry. The standpoints of the subjugated are not 'innocent' positions. On the contrary, they are preferred because in principle they are least likely to allow denial of the critical and interpretative core of all knowledge.[1063]

In this sense, Haraway points to the complexity of the 'science question in feminism', caught between a radical constructivist view – where all knowledge is seen as historically constructed and objectivity as little more than a myth – and a form of 'feminist empiricism'[1064] that seeks a new positive and objective truth grounded in women's experiences. For Haraway, the answer lies in the demanding practice of '[holding] on to both ends of the dichotomy'.[1065]

In the context of autism, the new conception of objectivity offered by the 'partial perspective' of 'situated knowledges' may involve moving beyond simplistic empiricism, emphasising the socially or politically charged nature of metaphors and concepts, while also recognising the particular modes of attention and perception granted by autistic embodiment. To establish true and objective knowledge about autism from an autistic standpoint, it is therefore necessary to consider what it means to perceive reality through an autistic bodymind, and how these modes of perception are socially and politically shaped and regulated.

Indeed, '[t]o see from below is neither easily learned nor unproblematic, even if "we" "naturally" inhabit the great underground terrain of subjugated knowledges'.[1066] Autism is not

[1062] *Ibid*., pp. 190–1.
[1063] *Ibid*. p. 191.
[1064] *Ibid*., p. 186.
[1065] *Ibid*., p. 188.
[1066] *Ibid*., p. 191.

merely something one is, but something one becomes in the form of a 'coming-to-know',[1067] a process in which one may never attain the comfort of knowing that truth has finally been reached for good. In this sense, if autistics are to understand their own modes of embodiment and cognition, that is to produce objective knowledge about themselves and autism, they cannot assume that their object of inquiry is immediately accessible. On the contrary, they may need to question the very naturalness of their own autism and hold themselves accountable for their claims.

Interestingly, the question of embodiment (i.e. the very ways in which autistic individuals perceive, sense, and pay attention to the world) lies at the heart of recent theories of autism developed by autistic scientists, such as the Intense World Theory (Chapter 1) and the theory of Monotropism. Considering how, in these models, autism is at once treated as a pre-existing form of embodiment and shaped through the languages of cognitive science and neurobiology, can help us ponder 'the science question in autism'.

This subsection uses the theory of monotropism as a prime example of autistic situated knowledge, illustrating both the autistic community's newly gained capacity to influence the agenda of autism science and the risk of self-pathologisation raised by the use of metaphors and conceptions in the theory's dissemination and reception. I first show how, through its development by autistic scientists, its grounding in first-hand autistic experience, and its broad scope and ambition, the theory of monotropism can be seen as a form of situated knowledge of autism that may thus claim a higher form of objectivity.

While grounded in cognitive psychology and framed as an interest-based approach, the theory of monotropism relies on a constellation of metaphors drawn largely from physics and plant life, beginning with the very term 'tropism', which tends to liken the so-called 'monotropic neurology' to the ways plants interact with their environments. Drawing on the perspective of animal phenomenology, I show that flattening metaphors which assimilate marginalised humans with plant and inorganic movement may risk reinforcing problematic forms of mechanisation and dehumanisation. The example of the history of plant tropisms in biology provides an opportunity to reflect on the centrality of metaphors in the production and dissemination of scientific knowledge.

Finally, I show how, in an era dominated by reductionist autism science, the theory of monotropism has encountered challenges at the level of reception. I argue that, amid renewed binary debates between free will and biological determinism, the theory is sometimes interpreted in ways that reinforce self-pathologisation among autistic individuals. I propose a counter-discourse centred on the phenomenological dimension of the theory, which I contend

[1067] M. Remi Yergeau, *Authoring Autism: On Rhetoric and Neurological Queerness*, Durham and London: Duke University Press, 2018, p. 160.

offers a promising approach to discussions of autistic embodiment and cognition while remaining accountable for the metaphors and frameworks employed.

a) The Theory of Monotropism as Situated Knowledge of Autism

Dinah Murray was an autistic autism researcher and a political activist. Together with Wenn Lawson, an autistic author and autism consultant, and with philosopher of mathematics and political activist Mike Lesser, who was likely autistic as well, she developed a theory of autistic cognition later known as the theory of monotropism.[1068] In brief, the theory proposes that autistic individuals tend to focus intensely on a limited number of interests or activities at a time, shaping the way they perceive and engage with the world, whereas non-autistics typically distribute their attention across more areas with less intensity. Both Murray and Lawson had been independently developing theories of autistic cognition centred on the idea of a singular focus or object of interest. Their meeting at a conference in 1998 sparked a fruitful collaboration and a friendship that endured for more than two decades.[1069]

Drawing on their background in cognitive psychology, the creators of the theory introduced the concept of *monotropism* alongside its counterpart, *polytropism*. Monotropism describes an autistic tendency to direct attention to a single interest at a time, whereas polytropism refers to a broader attention and a larger scope of interest in non-autistics. From this distinction arose the idea of heightened intensity (or 'arousal') in autistic interests, contrasted with the more flexible but less intense (or less 'aroused') interests of allistics. This pattern can be explained by the limited attentional resources available to any individual at a given time, and the different 'strategies employed for the allocation of attention'.[1070]

This theoretical foundation of the theory of monotropism aligns with the empirical observations made by and about autistic people, contributing to its positive reception within the autistic community. The notion of narrower but more intense attention helps explain what autistic people describe as 'special interests', typically long-lasting, detail-focused interests that

[1068] See Murray, Lesser, and Lawson, 'Attention, Monotropism'. The scholarly work on monotropism has resulted in the creation of different names for the theory, such as 'Interest Theory' by Dinah Murray or 'Single Attention and Associated Cognition in Autism', or SAACA, by Wenn Lawson. See Dinah Murray, 'UCL, Linguistics, and Autism', Paper presentation at the Alumni reunion, University College London, Department of Phonetics and Linguistics, 2003, accessed 22 April 2025. https://monotropism.org/dinah/ucl-linguistics-and-autism/; and Wenn Lawson, *The Passionate Mind: How People with Autism Learn*, London and Philadelphia: Jessica Kingsley Publishers, 2010.
[1069] Fergus Murray and Wenn Lawson, 'History of Monotropism', *Monotropism*, 2022, accessed 22 April 2025. https://monotropism.org/history/.
[1070] Murray, Lesser, and Lawson, 'Attention, Monotropism', p. 140.

can lead autistics to become near-specialists or experts in these subjects,[1071] and to experience distinctive forms of 'satisfaction or even ecstatic joy',[1072] often named 'autistic joy'. Conversely, taking an interest in what others focus on when it does not resonate with one's own attention, or simply imagining what others are going through while deeply engaged in one's own attentional flow, can feel profoundly 'hurt[ful]' and be experienced as a form of 'coercion'.[1073]

Lawson further argues that the monotropic tendency of the autistic mind could result in a need for routines and structures, which are less taxing and better suited to satisfy our monotropic tendency.[1074] Monotropism is also set to explain autistic preferences for monotasking, as well as difficulties in switching between tasks or in imagining one's potential future mental or emotional state, a phenomenon often referred to as 'autistic inertia', 'object impermanence', or 'executive dysfunction'.[1075]

Monotropism can also account for the autistic difficulty in maintaining eye contact during conversations, since processing additional information makes it harder to focus on the spoken content shared by the interlocutor.[1076] In this way, monotropism helps explain and justify autistic behaviour, thereby bypassing allegations of it being 'outside the bounds of social acceptability'.[1077] Furthermore, the concept sheds light on the autistic tendency to lose awareness of one's surroundings when deeply engaged in a highly stimulating or interesting activity, an experience characterised by neurodivergent communities as 'hyperfocus'.[1078]

Unlike the Intense World Theory, the theory of monotropism is initially grounded in cognitive psychology rather than neurobiology.[1079] It serves as a critical response to previous, pathologising accounts of autistic cognition – such as 'Theory of Mind', 'weak central coherence' or 'executive dysfunction' – which are based on a deficit model.[1080] The key contribution of monotropism is its more generous interpretation of autistic cognition. The

---

[1071] Curiously enough, our skill sets are also described as more 'uneven' (*Ibid*., p. 148), 'fragmentary' (p. 148), and 'patchy' (p. 149), resulting in a 'hindrance' (p. 149) to the enactment of pro-social behaviours. Although I will not engage in this discussion here, the language used in the initial paper on monotropism sounds somewhat pathologising.
[1072] *Ibid*., p. 141.
[1073] Dinah Murray, 'Attention Tunnelling and Autism', *Living with Autism: The Individual, the Family, and the Professional*, Durham conference proceedings, 1992, n.p., accessed 22 April 2025. https://monotropism.org/dinah/attention-tunnelling-and-autism/.
[1074] Murray and Lawson, 'History of Monotropism'.
[1075] See Murray, Lesser, and Lawson, 'Attention, Monotropism', p. 147: 'to a person in an attention tunnel every unanticipated change is abrupt and is truly, if briefly, catastrophic: a complete disconnection from a previous safe state, a plunge into a meaningless blizzard of sensations, a frightening experience which may occur many times in a single day. Following such an episode it may take a long time for any other interest to emerge'.
[1076] *Ibid*., p. 150.
[1077] *Ibid*., p. 144.
[1078] Lawson himself related such an experience in the initial paper: 'It's as if I am tuned in to watching out for the birds. If a bird flies past, over or in front of me, it 'catches' my attention immediately. It doesn't matter what else is going on, within or without me, my interest is the birds. I can watch them for hours, and during this time I am in a state of intense joy. Sometimes this intensity makes me cry' (*Ibid*., pp. 145–6).
[1079] *Ibid*., p. 144: 'Our own proposal is about cognition: we do not know its relevance to neuronal activity'.
[1080] *Ibid*., pp. 140–1.

theory defines 'aroused interest' as 'an interest charged with feeling',[1081] and frames autistic task performance as driven by motivation and a search for meaning. The authors note that autistic individuals 'tend to be either passionately interested or not interested at all', suggesting that 'high motivation [brings along] higher levels of attention'.[1082] By foregrounding affective dispositions, the theory rejects oversimplified narratives of capacity and incapacity – which tend to rely on black-and-white portrayals of autistic skills – in favour of discussing degrees of 'difficulty'.[1083]

Fergus Lawson, Dinah Murray's child, has therefore described the theory of monotropism as the most comprehensive attempt to date to understand not only autism,[1084] but also ADHD, which it is increasingly revised to include.[1085] In the context of my discussion of the situated knowledges of autism, the theory of monotropism appears to qualify as a form of situated knowledge produced by autistic people within autism science. Unfortunately, the theory has largely remained at the margins of the field and has yet to provoke a radical shift. Nonetheless, its presence helps shape the agenda of autism science and raises the scientific and political standards of the field, fostering the kind of *embodied* objectivity Donna Haraway envisioned.[1086]

b) The Non-Innocence of More-Than-Human Metaphors for Autistic Neurocognition

The theory of monotropism's focus on affective cognition fosters curiosity about what autistic individuals actually experience from the inside. In the context of autistic embodiment and cognition, Murray, Lawson, and Lesser suggest that the autistic subject resembles 'a phenomenologist, trying to learn from what is seen, heard, felt, smelt, rather than from what can be implied or inferred from these sensations'.[1087] They argue that autistic people, as predominantly sensory beings, may be less concerned than their allistic peers with linguistic

---

[1081] *Ibid*.
[1082] *Ibid*., pp. 142–4.
[1083] *Ibid*., p. 144.
[1084] Fergus Murray, 'On Psychological Theories of Autism', *Oolong*, 15 September 2018. https://oolong.medium.com/on-psychological-theories-of-autism-fbe3e3d039a5.
[1085] Patrick Dwyer et al., 'A Trans-Diagnostic Investigation of Attention, Hyper-focus, and Monotropism in Autism, Attention Dysregulation Hyperactivity Development, and the General Population', *Neurodiversity*, vol. 2; Ryan Boren, 'Kinetic Cognitive Style', *Stimpunks*, 13 June 2022, accessed 22 April 2025. https://stimpunks.org/glossary/kinetic-cognitive-style/; Fergus Murray and Sonny Hallett, 'ADHD and Monotropism', *Monotropism*, 2023, accessed 22 April 2025. https://monotropism.org/adhd/.
[1086] Fergus Murray and Wenn Lawson explain that '[i]t took a long time for the psychology establishment to take much notice, but in recent years, Monotropism has been receiving a good deal of attention not just within the autistic community but also among autism researchers – especially, but not exclusively, autistic autism researchers. New peer-reviewed work comes out most weeks that talks about it, and Monotropism is covered in more and more university autism courses'. See Murray and Lawson, 'History of Monotropism'.
[1087] Jordan cited in Murray, Lesser, and Lawson, 'Attention, Monotropism', p. 143.

considerations of meaning or function, as well as with '*thinking strategies* […] *such as comparisons, metaphors, contextualization and social motivation*'.[1088]

This idea was exemplified by a brief email exchange with Fergus Murray, in which I inquired about the origin of the term 'monotropism'. I knew that the notion had been suggested to Dinah Murray, Fergus's mother, by her friend Jeanette Buirski,[1089] but I hoped to find out what had sparked interest in the realm of tropisms. According to Fergus Murray, Dinah had never explicitly linked monotropism to the biology of tropisms, and it was unlikely that she and her co-authors drew inspiration from John Bowlby's theory of monotropy. Fergus Murray explained that the term was probably inspired by etymology, with 'tropism' deriving from the Greek *τρόπος* (trópos), which evokes the act of 'turning'.[1090] The idea of attention shifting towards or settling on a specific object of interest is something most autistics can readily relate to upon hearing the word 'tropism'. This account was corroborated by Wenn Lawson, who noted that 'tropism' may have emerged in discussion as a way to signify the 'orientation' or 'channelling' of attention.[1091]

Beyond the idea of a deep autistic attunement to sensory phenomena, which can help us foster more accurate descriptions of autistic experiences, one should keep in mind Donna Haraway's call to also consider *what it means* to see, and the technologies and apparatuses that mediate our perception and knowledge production. Whether it is true or not that autistic people have little interest in linguistic considerations, it remains that '[a]ll stories traffic in tropes, i.e. figures of speech necessary to say anything at all. Trope (Greek: *tropós*) means swerving or tripping. All language swerves and trips; there is never direct meaning, only the dogmatic think that trope-free communication is our province'.[1092] The term 'monotropism' is no exception: it functions as a rhetorical trope that swerves and trips. When I use the word 'tropism' – which conveys a sense of the mind *being turned* towards something – I produce a different effect than when I use the word 'attention', which expresses an active nature of the mind of *tending* or *tension* towards something. In this way, 'tropism' is no less a trope or metaphor than any other word. To *turn* towards (or rather, to *be turned* towards) something is not the same as to *tend* towards it. As ethnographer Marilyn Strathern taught us through Haraway, 'it matters what ideas we use to think other ideas (with)'.[1093]

Indeed, the production, dissemination, and reception of the theory of monotropism have generated a constellation of explicit images and metaphors for autistic psychology, particularly

[1088] *Ibid*., emphasis in original.
[1089] Murray, 'Attention Tunnelling and Autism'.
[1090] Fergus Murray, email to author, 1 May 2024.
[1091] Wenn Lawson, email to author, 24 May 2024.
[1092] Haraway, *The Companion Species Manifesto*, p. 20.
[1093] Haraway, *Staying with the Trouble*, p. 12.

autistic cognition and attention. In their original article Murray, Lesser, and Lawson employ an optical metaphor of light and focus, linking the spectrum between polytropism and monotropism to the images of 'diffused light at one extreme and a torch beam at the other'.[1094] Thirteen years later, Dinah Murray expressed a change of heart, explaining that 'we now prefer a water analogy, as water has flow and turbulence, and finds its way through any gap: monotropic people appear especially good at spotting the cracks and gaps'.[1095]

In a 1998 conference presentation, Dinah Murray and Mike Lesser provided background for their development of an 'ecological model'[1096] of the autistic mind. They explained that their mathematical model of attention was inspired by scientific work conducted by Lesser and his colleague Peter Allen: 'a fundamental and limited resource, solar radiation, is competed for by a spontaneously arising hierarchy of life forms. In our model the fundamental and limited resource is mental attention'.[1097]

Finally, a visual metaphor for monotropism appears at the top of one of Fergus Murray's articles: the contrast between a 'smoothly curving trunk' – representing monotropism – and the 'heavily branched' tree of polytropic attention.[1098] Murray explains this choice at the end of the text: '[t]he photos at the top are my own; I thought it could be good to have something that illustrates the idea of degrees of branching, and after spending a while looking at satellite images of gorges and deltas this is what I came up with'.[1099]

Wenn Lawson employs a similar metaphor in his book on autistic learning styles, suggesting that '[t]he solid filled tree foliage background in AS [autism spectrum] represents the brain's resultant interests from available single attention as highly focused interests. The "see through" form in NT [neurotypical] represents the brain's resultant connection to attention and diffuse interests'.[1100] Here, the autistic mind is depicted as a slim autistic trunk of attention supporting a 'narrow and deep' foliage of interest, and the neurotypical mind is represented by a larger trunk with 'broad and shallow'[1101] foliage.

[1094] Murray, Lesser, and Lawson, 'Attention, Monotropism', p. 140.
[1095] Dinah Murray, 'Monotropism – An Interest Based Account of Autism', in *Encyclopedia of Autism Spectrum Disorders*, ed. F. R. Volkmar, Cham: Springer, 2018, p. 2.
[1096] Mike Lesser and Dinah Murray, 'Mind as a Dynamical System: Implications for Autism', Conference presentation, *Psychobiology of Autism: Current Research & Practice*, Durham, 1998, accessed 22 April 2025. https://monotropism.org/dinah/mind-as-a-dynamical-system/.
[1097] *Ibid*., n.p.
[1098] Fergus Murray, 'Making Sense of Autism: Monotropism and the Mind as an Interest System', *YouTube*, 18 April 2021, accessed 22 April 2025. https://www.youtube.com/watch?v=KKhfp_ABjcM.
[1099] Fergus Murray, 'Me and Monotropism: A Unified Theory of Autism', *The Psychologist*, 30 November 2018, accessed 22 April 2025. https://www.bps.org.uk/psychologist/me-and-monotropism-unified-theory-autism.
[1100] Lawson, *The Passionate Mind*, p. 104.
[1101] *Ibid*., p. 105.

Commentators of the theory have also introduced metaphors for monotropism. For example, Helen Edgar (from *Autistic Realms*[1102]) presents a seasonal metaphor for monotropism in which each season corresponds to a type of mental state: spring as a change of interests, summer as flourishing into one's passions, autumn as inertia and burnout, and finally winter as rest and recovery.[1103] In an animated video on monotropism shared via the Monotropism website, autism advocate Kieran Rose employs the metaphor of a black hole, arguing that

> the monotropic brain is looking for an 'in', a 'hook', something to spark its interest […] [and] when it has found that hook, the Autistic brain is able to hold onto it, but the focus of our attention has more mass than anything else in our environment; it's like a black hole, its gravity drags us in, we are pulled towards it with immense force.[1104]

Finally, in a personal communication with Wenn Lawson, H. Stone compared autistic monotropism to the fixed direction of a train set onto rails, whereas polytropism was likened to cars that can easily change direction.[1105]

The choice of metaphors – ranging from light intensities and directions to water movement, black holes, mass, or gravity – draws on physics and invokes notions of energy and force. These metaphors implicitly frame autistic attention and interests as being dragged, pulled, or pushed by physical forces rather than as biological, let alone subjective, phenomena. As I will demonstrate at the end of this subsection, while such metaphors are not inherently harmful, they can easily lend themselves to oversimplified and potentially misleading representations of autistic traits as 'unintentional' or 'involuntary'.

The tree metaphor and the analogy of life forms competing for the limited resource of solar radiation evoke plant biology. In the context of a recent (re)turn to, and fascination with, plants in recent years, it is possible that comparisons of autistic cognition to plant movements may prove flattering for autistic people. The lives of trees, for example, have enjoyed intense attention: perhaps being compared to a tree may shift the narrative of autism as a puzzling pathology toward a rhetoric of fascinating alternative reality. In reading the discourse about monotropism together with the question of plant tropisms, my interest lies elsewhere. I suggest that reading these monotropic figurations through the history of tropisms in plant biology helps clarify their epistemological and political implications, even when used only as metaphors. My point in turning to these debates is not to adjudicate plant science or plant studies, but to show

---

[1102] Autistic Realms is the online platform (website, social media pages, etc.) through which autistic advocate, author, and consultant Helen Edgar publicises her work on autism and neurodiversity.
[1103] Helen Edgar (@AutisticRealms), '1. A seasonal interpretation of #monotropism', *Twitter/X*, 2 May 2024, accessed 22 April 2025. https://x.com/autisticrealms/status/1786104362067988767.
[1104] Kieran Rose and Josh Knowles, 'Monotropism: Setting up the Science', video in Fergus Murray, 'Explanations', *Monotropism*, n. d, accessed 22 April 2025. https://monotropism.org/explanations/.
[1105] Stone, cited in Lawson, *The Passionate Mind*, p. 107.

how borrowing the language of tropism imports with it a long history of deterministic thinking about life, as well as deeper philosophical distinctions between different forms of life. Even though the concept of tropism has expanded beyond biology and has even made its way into popular culture, taking the analogy seriously may help emphasise the potential problems raised by comparing neurodivergent people with non-sentient beings.

The concept of tropism, introduced by plant physiologist Julius von Sachs, was originally defined as 'an obligatory movement made by an organism in a response directly proportional to a physical stimulus'.[1106] Belgian author and psychologist Georges Thinès, in *Psychologie des animaux* [The Psychology of Animals], distinguished plant tropisms and animal taxes, the latter being innate *behavioural* responses to environmental changes.[1107] In plants, tropisms occur during growth and correspond to the orientation of a specific part of the organism (roots, stems, or branches) in a given direction.[1108] In contrast, animal taxes involved 'an overall movement [of the organism] in a particular direction'.[1109]

Plant tropisms arise in response to different stimuli. One can singularise various forms of tropisms: phototropism (attraction to light), chemotropism (attraction to specific chemical elements), thermotropism (attraction to heat), hygrotropism (attraction to humidity), and geotropism (attraction to gravity).[1110] As Thinès notes, tropisms can be positive or negative, referring to movements *towards* or *opposite* the source of stimulation. In the context of Fergus Murray's tree metaphor, it appears that 'the roots display positive geotropism (catageotropism) and the stem displays negative geotropism (anageotropism)'.[1111] This means that roots are directed towards the inside of the Earth, while the trunk grows in the opposite direction, namely, towards the sky.

It is worth noting that contemporary plant biology and plant studies have moved past the original mechanistic description of tropisms, recognising the context-sensitive, adaptive, and interactive nature of plant movements.[1112] While the concept of tropism is still used, it is no longer understood as a deterministic reaction or as an obligatory effect of unilateral causation. But as Florence Burgat has shown in *Qu'est-ce qu'une plante ?* (What Is a Plant?), these perspectives have tended to embrace animistic and panpsychist positions that apply concepts traditionally reserved for animality, such as sentience and intentionality, to vegetal life, perhaps

[1106] Donna J. Haraway, *Crystals, Fabrics and Fields: Metaphors that Shape Embryos*, Berkeley: North Atlantic Books, 1976, p. 21.
[1107] Georges Thinès, *Psychologie des animaux*, Bruxelles: Charles Dessart, 1966. Remember, with Goldstein, that even reflexes in animals should be understood as behaviours.
[1108] *Ibid*., p. 137.
[1109] *Ibid*., p. 138. I translated all citations of Thinès and Buytendijk from French.
[1110] Geotropism is now largely described as gravitropism in the scientific literature.
[1111] Thinès, *Psychologue des animaux*, p. 150.
[1112] See Derek E. Moulton, Hadrien Oliveri, and Alain Goriely, 'Multiscale Integration of Environmental Stimuli in Plant Tropism Produces Complex Behaviors', *Proceedings of the National Academy of Sciences of the United States of America*, vol. 117, no. 51 (2020), pp. 32226–37.

unjustly so. In this way, this more nuanced conception of plant movement should not eschew the fundamental ontological differences between plants and animals, which lie in uniquely animal traits.[1113]

By drawing on examples from physics (light, water, black holes) and plant biology (tropisms and seasonal changes), the theory of monotropism is formulated and received in ways that link autistic cognition to a particular imaginary, which, in popular culture as well as in most of the Western philosophical and scientific tradition, is made up of notions of unintentionality, passivity, and mechanistic causality. Echoing Lundblad's analysis of the potential harms of disanimality in metaphors that animalise disabled people, we may wonder about the potential risks of other forms of more-than-human metaphors, namely those in which autistic cognition is compared to the movements of physical matter and plants. When one brings together these two 'tropes' – the disanimal metaphor and what we could playfully term the 'disvegetal' or 'dismaterial' – it appears that the latter two registers are significantly riskier than the former.

Indeed, as I will return to below, the blending of physical matter, plants, and animals (and, similarly, of physics, plant biology and zoology) opens the door to a reductionist representation of nervous systems in autism discourse because the unique traits of the human or animal subject are replaced by a focus on the agency of the nervous system, if not even of stimuli or matter itself. Such a gesture is not only found in the flattening rhetoric of given forms of autism advocacy and popular culture – where matter, plants, animals, and humans, are attributed different degrees of 'animacy' and treated accordingly[1114] – but also in the 'flat ontology' of posthumanist theory (particularly new materialism and critical plant studies), which has historically clashed with animal ontology and antispeciesist politics.[1115] In this last case, one is again confronted with the tension between ecological models and animalist models, where the former lend themselves to celebrations of entanglement and relationality, whereas the latter may sometimes remain strategically committed to methodological individualism and

[1113] Recent research in plant biology and biosemiotics has highlighted the complex ways in which plants interact with their environments, including with other living beings. These interactions are often interpreted as evidence of plant cognition, intelligence, subjectivity, or even sentience. While such findings might be valuable for fostering a deeper understanding of plant life, my concern here is somewhat different: I am interested in keeping in view the ontological distinctions between plant life and animal existence, which is justified from a phenomenological and ethico-political perspective. To do so, I draw on Florence Burgat's work on the ontology of plant life and particularly her discussion of tropisms, see Florence Burgat, *Qu'est-ce qu'une plante ?* Paris: Seuil, 2021, pp. 60–2. For a briefer introduction to this book in English, see Florence Burgat, 'The Phyto-Zoological Difference: Three Epistemological Questions', in *Biological Relationalism: The Relational Turn in Contemporary Science, Theory, and Politics*, ed. Aurore Franco-Ricord and Ombre Tarragnat, Cham: Springer, forthcoming.

[1114] Mel Y. Chen, *Animacies: Biopolitics, Racial Mattering, and Queer Affect*, Durham and London: Duke University Press, 2012.

[1115] A counterexample of this can be found in the work of Roberto Marchesini, who introduces a posthumanism that is at once an antispeciesism and which, perhaps unsurprisingly, remains committed to the ontological singularisation of animality through a critical revisitation of Western metaphysics.

ontological differences.[1116] My critique of 'disvegetal' and 'dismaterial' metaphors in the theory of monotropism and its reception stems from such a commitment to antispeciesism, which, as I have shown in Chapter 4, might not always be satisfied by more-than-human or ecological models.

In this perspective, I suggest that the animal metaphor of the 'meerkat mode', introduced by Tanya Adkin to capture the monotropic state of attention of autistic people, produces significantly less harmful effects than the aforementioned metaphors. Adkin describes the meerkat mode as a '*heightened state of vigilance and arousal* [in meerkats, which] *involves constantly looking for danger and threat*'.[1117] By drawing on an animal experience, this metaphor relies on the structural similarities between the subjective states of the meerkat and the autistic human. In contrast, the analogy between plants competing for solar radiation and autistic interests competing for limited mental attention is less direct and risks reducing autistic life to physicochemical processes when read literally. While crossing disciplinary and biological boundaries is not inherently negative and may even prove critical to the deconstruction of humanist metaphysics, it produces potentially harmful effects for both autism advocacy and animal politics.

Regarding animal politics, one example of this is found in the infamous trope of the 'crying carrot'. This refers to the fallacious claim, often brought up by anti-antispeciesist activists, that plants suffer too. This argument is never used to suggest that one should refrain from eating plants, but only as a rhetorical prop to justify the consumption of animal products. In a neofascist context marked by the simultaneous growing popularity of critical plant studies and radical decrease in popularity of veganism – and we might argue that this simultaneity is far from contingent – the arguments for increased consideration of plants, however serious and well-founded they may be, are increasingly mobilised against animal advocacy. In this regard, it may be useful to note that the turn to plant metaphors instead of animal ones is not politically neutral. Instead, it corresponds to an ecological imaginary that has few consequences on the political sphere, when it is not directly complicit in conservative ideals. It might be useful here to recall the direct participation of ecological ideals to the conservative revolution at the peak of European modernity, which I mentioned through Schnödl and Sprenger in Chapter 1.

At the conference where she first presented on autism and published her initial work on monotropism, Dinah Murray herself acknowledged that the blending of different realms in the

[1116] Methodological individualism, in this case, refers to the idea that animalist perspectives emphasise the presence or absence of sentience in given individuals. Ecological models, on the contrary, tend to focus on populations and might therefore disregard individuals and their rights.
[1117] Tanya Adkin, 'What is Meerkat Mode and How Does it Relate to AuDHD?', *Emergent Divergence*, 6 June 2023, accessed 22 April 2025, n. p, emphasis in text. https://emergentdivergence.com/2023/06/06/what-is-meerkat-mode-and-how-does-it-relate-to-audhd/.

monotropism theory was not self-evident. Answering an audience question about reconciling the diversity of fields to which she and Lesser sought to apply their ecological model, she conceded: '[w]hat the relationship is between these interpretations is a very interesting question'.[1118] Interestingly, Murray and Lesser later described autistic cognition in terms more evocative of the meerkat than the plant: '[i]t is a mind optimised for searching for sustenance in a dangerous environment in which resources are scarce'.[1119] Therefore, the extensive use of metaphors in the production, reception, and dissemination of the theory of monotropism calls for particular accountability. While autistic people might be drawn to metaphors for their visual or illustrative power rather than their symbolic significance, it is important to remember that all tropes reflect on the ideas they aim to convey, thereby shaping and transforming their meaning.

Donna Haraway, trained as a historian of science, wrote her PhD thesis on the emergence of organicism in early twentieth-century developmental biology. The book she published based on this research, *Crystals, Fabrics and Fields: Metaphors that Shape Embryos*, highlights the role of metaphors, images, tropes, and aesthetics more broadly, in the production of scientific facts and paradigms. It demonstrates how what are often considered mere supplements to scientific theories – or tools for their dissemination – are in fact central to the very process of developing arguments, theories, and paradigms.

Interestingly, the organicist paradigm that Haraway examined was developed as an alternative to the mechanistic paradigm in biology. As she notes, '[t]heories of tropisms, physiology, biochemistry, developmental mechanics – all illustrate both the triumphs of work conducted under the mechanistic program and the strains leading to the new paradigm'.[1120] Tropism, initially conceived by Julius von Sachs to describe plant movements, was later extended to animals by Jacques Loeb, a biologist and physiologist and a student of Sachs. According to Haraway, '[t]ormented by a deep need to resolve the issue of free will and determinism in human action, Loeb found a solution in his doctrine of animal tropisms, first elaborated about 1880'.[1121] This influential and radical doctrine led Loeb to develop what he called a *Mechanistic Conception of Life* (1912),[1122] which rested on 'the belief that biology could be understood entirely through reduction to physics and chemistry, that is, a microdeterministic physics and chemistry'.[1123] Loeb's ultimate aim, consistent with his mechanistic thinking, was

[1118] Murray, 'Attention Tunnelling and Autism', n.p.
[1119] Mike Lesser and Dinah Murray, 'Mind as a Dynamical System', n.p.
[1120] Haraway, *Crystals, Fabrics and Fields*, p. 17.
[1121] *Ibid*., p. 21.
[1122] See Jacques Loeb, *The Mechanistic Conception of Life: Biological Essays*, Chicago: University of Chicago Press, 1912.
[1123] Haraway, *Crystals, Fabrics and Fields*, p. 148.

to extend these principles to humans, reducing all social relations to physicochemical forces and reactions.[1124]

Yet as authors such as Herbert Spencer Jennings, Georges Thinès, and Frederik Buytendijk have shown, this mechanistic notion of tropism has little to no validity when applied to animal movements and behaviours. As early as 1906, 'Jennings demonstrated that many lower organisms did not display true tropistic behavior but rather showed spontaneous activities until a chance course of action relieved distress. Pure determinism did not explain even the behavior of simple animals'.[1125] In the aforementioned volume, Thinès reminds us that 'tropistic phenomena [in plants] are therefore followed by molecular transmission phenomena in the stem, and these are quite different from those seen in animals, since the plant has no nerve structure'.[1126] Buytendijk, in turn, observes that the animal theory of tropisms 'completely eliminates psychology as a science'[1127] and disregards all considerations of subjectivity in animal movements and behaviours. According to this perspective, all causes and effects can be traced back to a physiological substratum, such as the nervous system.

According to Buytendijk, animal movements and behaviours depend on factors fundamentally different from those governing plant movements. Instincts, although innate, respond to 'an unconscious necessity that acts in the animal's soul'.[1128] Moreover, even animals with so-called 'simpler' organisations can form habits that run counter to their natural tropistic tendencies.[1129] As Buytendijk argues, the theory of tropism, which portrays the animal as 'a machine without soul',[1130] rejects such insights and should therefore be rejected.[1131]

As a conceptual illustration, consider sunflowers, whose movement towards the sun exemplifies a strictly non-subjective orientation. Whether in the traditional mechanistic approach to tropisms or in contemporary biosemiotic approaches, there is a clear distinction between sunflowers and (autistic) humans. The phototropism of the sunflower results from a set of physical and chemical interactions that occur without the plant experiencing or intending its own movement. It is therefore not a subjective experience or a behaviour in a phenomenological sense. (Autistic) humans, by contrast – and like other nonhuman animals –

[1124] In his book on the psychology of animals, Frederik Buytendijk quotes a claim by Loeb that even 'the constant love of a man for a woman […] is a complicated tropism'. See Frederik Buytendijk, *Psychologie des animaux*, Paris: Payot, 1928, pp. 53–4.
[1125] Haraway, *Crystals, Fabrics and Fields*, p. 22. Given the profound changes in zoology and plant biology in recent decades, one may wonder about the usefulness of returning to older authors like Jennings or Buytendijk. I would argue that, in a scientific context increasingly marked by the return of mechanism, returning to a more holistic and phenomenological tradition, found in heterodox thinkers, can prove beneficial, even when their empirical findings may no longer apply and should therefore be updated.
[1126] Thinès, *Psychologie des animaux*, p. 139.
[1127] Buytendijk, *Psychologie des animaux*, p. 53.
[1128] *Ibid*., p. 57.
[1129] *Ibid*., pp. 62–3.
[1130] *Ibid*., p. 57.
[1131] *Ibid*., pp. 78–9.

behave and move spontaneously and subjectively,[1132] even when certain behaviours are enacted as if 'automatically'. This phyto-zoological difference, alongside the mechanistic history of biological tropisms, highlights why metaphorical transfers from (plant) tropisms to autistic neuro/cognition, while suggestive, must be carefully considered and mediated.

c) The Bestialisation of Monotropic Neurology: The Legacy of Mechanistic Biology

Although the theory of monotropism is anchored in a cognitive psychology framework that attends to the complexities of interest and motivation, it also, at least implicitly, engages with the debates on free will and determinism that tormented Loeb and that arise again with the theory of monotropism. In his book on the learning style of autistics, Wenn Lawson notes that '[i]n AS [autism spectrum], monotropic attention is not seen as a *choice* but as integral to our learning style'.[1133] This deterministic (and binary) framing can be read as a challenge to the widespread rhetoric of choice and responsibility in the neoliberal era, shifting the burden of guilt from uncooperative autistics to intolerant allistics. Yet in doing so, it risks slipping back to a mechanistic conception of life, in which attention tropisms are seen as the mechanical effect of internal or external physical cause, rather than actions enacted by a subjective agent.

At stake in the debate between free will and determinism is the role these ideas have played in the marginalisation and exclusion of certain classes of beings throughout the history of Western thought and politics. The mechanistic and deterministic view that Loeb radicalised in biology is often traced back to Descartes, as I have mentioned above. This same rhetoric of deterministic and mechanistic causation has been applied to the humans encountered by colonisers in the so-called 'New World' and, more recently, to disabled and neurodivergent humans. As M. Remi Yergeau observes, the rhetoric of 'involuntarity' has, in many ways, become the dominant framework for understanding autistic cognition and behaviour. In this way, autistic people have been represented, in clinical setting and in the ableist imaginary, as '*robots-en-organisme*'.[1134] Emphasising involuntarity and unintentionality thus contributes to denying autistics the opportunity to act agentially and autonomously, underpinning potentially harmful approaches in autism policy, education, and therapy, such as Applied Behavioural Analysis, or ABA (see more in Chapter 6).

[1132] *Ibid*.
[1133] Lawson, *The Passionate Mind*, p. 107, emphasis mine.
[1134] Yergeau, *Authoring Autism*, p. 15. The citation is in French in the text.

Certainly, through its attention to affect, motivation, and goal-orientedness, the theory of monotropism avoids the charge of mechanistic reduction. Yet the binary between choice or free will (implying moral responsibility, if not guilt) and passivity or determinism (which tends to reject individual or subjective responsibility) – a binary that Lawson seems to play into, and which is common in the situated knowledges and activism of many marginalised communities today – is a false dilemma. Subjectivity should not be reduced to the simplistic notion of reflexive free will and transparent consciousness; it can also encompass unconscious or subconscious intentionality. Similarly, rather than being conceived as a mechanism in which one cog moves the next in linear causality, the 'autistic mind' can be understood as a pre-existing disposition that must be taken up and enacted by the individual through spontaneous movements and behaviours – that is, as a structure that orients without determining. In this context, the notion of 'strategies', introduced by the original authors in 2005, provides a compelling example of the nuanced nature of agency.[1135]

It appears that the main challenge for the theory of monotropism lies in its reception and interpretation in politically charged contexts. Again, within neurodivergent communities, it is common to hear autistic and/or kinetic[1136] individuals explain difficulties with multitasking or eye contact, or their reliance on routines and structures, with reductionist phrases like 'my brain is just wired that way'. Or perhaps, 'I wanted to complete this task, but my brain didn't let me'. This is also true in the reception of the theory of monotropism. For example, an anonymous Twitter/X user wrote that a '#monotropic brain *can only* focus on one thing at a time. Other people can misunderstand us, thinking we are *deliberately* being difficult when *it is actually our neurology and not our fault*'.[1137]

The context of speaking is crucial here: admittedly, these expressions and metaphors play an important role in challenging the mistaken perception of autistics as lazy or careless and can elicit epistemic generosity from allistics. At the same time, framing autism in biologically deterministic or mechanistic terms ultimately reinforces the bestialising view of autistic cognition and behaviour as unintentional and involuntary. Measured against the harm produced by (neuro)reductionist language in nonhuman animal contexts, such a rhetoric can also signal a potential tension between autism advocacy and animalist movements, where one benefits

[1135] According to Damian Milton, the term can be explained by the idea that, in the context of sensory hypersensitivity, for instance, monotropism becomes a positive issue rather than a dysfunctional thing, because it brings the individual 'predictability', 'control over [one's] immediate environment', a 'sense of achievement', and 'in-the-moment fun'. See Studio III Atlass, 'Damian Milton on Monotropism and Flow States', video, *YouTube*, 18 October 2018, accessed 22 April 2025. https://www.youtube.com/watch?v=MUDQD1p2zFE.
[1136] 'Kinetic cognitive style' is the term offered by Nick Walker as replacement of the pathologising 'ADHD'.
[1137] Anonymous [@AutisticSelves], *Twitter/X*, 7 September 2022, accessed 22 April 2025, emphasis mine. https://x.com/AutisticSelves/status/1567552230839967747.

(albeit only superficially and temporarily) from reductionism, whereas the other must inevitably resist it.

As noted, the theory of monotropism is not grounded in neurobiology, yet it is frequently discussed in terms of the 'monotropic brain'[1138] or 'monotropic neurology'.[1139] For example, the video narrated by Kieran Rose cited above suggests that 'if you're not aware of Monotropic *neurology*, it can be easy to assume that while in a flow state, an Autistic person is *deliberately* disengaged, *deliberately* not listening, or not paying attention on purpose'.[1140] While the video concludes using the language of difficulties and mental transitions, its physics metaphors (gravity and black holes) tend to frame monotropic tendencies as passively and unintentionally experienced, unilaterally caused, or determined by one's 'monotropic brain'. This perspective downplays the subjective – though not necessarily rational or reflexive – dimension of the flow state, which is fundamentally interest-based. It illustrates how neurocentrism (the emphasis on the brain or nervous system) often leads to neuroreductionism (the reduction of subjective phenomena to physicochemical processes). By portraying autistic cognition as unintentional, neuroreductionist discourse ultimately gives in to pathologisation and bestialisation.

As Dinah Murray notes, '[u]nfortunately, the fundamental idea of monotropism has to some extent been misunderstood and misrepresented since we first published it […] because it has not been understood in the context of minds as interest systems'.[1141] In other words, the issue lies in the mechanistic and reductionist reception of the theory of monotropism, which may even overlook the ecological (i.e. dynamical) modelling that underpins its account of autistic cognition. Too often, in our era of hegemonic neurosciences, neurodivergence is treated as a discrete nervous structure, neatly differentiated from the neurotypical brain. Autism is thereby understood as something one is born with, fully determining one's abilities and inabilities, experiences, and actions. Consequently, the forms in which autism manifests across different stages of life are not always recognised as emerging from a dynamic and subjective engagement with one's environment.

In contrast, Dinah Murray understood autism and allism as the two poles of a spectrum of neurodiversity, and rather than emphasising only their differences, she highlighted the commonalities between them.[1142] She also argued that monotropism is a shared condition of all human infants, with more or less flexible or rigid forms stabilising over time depending on the

[1138] At the time of writing in 2024, a search for 'monotropic brain' in the search engine of Twitter/X results in almost a hundred examples, where autistic attention is assimilated to the idea of the autistic or monotropic brain.
[1139] Rose and Knowles, 'Monotropism: Setting up the Science'.
[1140] *Ibid*., emphasis mine.
[1141] Dinah Murray, 'Dimensions of Difference', in *The Neurodiversity Reader: Exploring Concepts, Lived Experience and Implications for Practice*, ed. Damian Milton, Shoreham by Sea: Pavilion Publishing, 2020, n.p.
[1142] Dinah Murray et al., 'The Human Spectrum: A Phenomenological Enquiry within Neurodiversity', *Psychopathology*, vol. 56 (2023), pp. 220–30.

effort of relatives to engage the child in a variety of interests.[1143] Within a hegemonic, collective neuroreductionist mindset, however, the theory of monotropism has often been interpreted to suggest that autistic neurology, because it is fundamentally different from allistic neurology, deterministically shapes autistic experiences, leaving no room for choice, free will, or subjective intentionality, including subconscious or pre-reflexive intentionality. My aim in critiquing this reductionist framing is not to deny that autistic cognition can involve experiences of passivity, constraint, or limitation, or that special interests may sometimes feel like being irresistibly *drawn towards* or *absorbed by* an object of interest. On the contrary, it aims to ground these experiences in more nuanced and adequate terms. Perhaps the passivity described by the theory of monotropism should not be positioned within the ability/inability binary but rather along spectrums of *difficulties*.

The complexity of discussions surrounding autism and disability means that no way of representing lived experience is ever innocent or entirely neutral, and neither is the notion of 'difficulties' I am examining here. To be clear, describing autistic experiences in terms of difficulties rather than inabilities does not imply that autistics should be coerced into behavioural or cognitive styles that are not 'unnatural' for us or preferred by us. The flexibility of autistic bodyminds does not justify enforcing neuronormative attention styles. It is true, however, that using the rhetoric of inability has often proved to be the most strategic choice in political organising, even when performed at the cost of a form of reductionism. It should, at the very least, not be associated with neurocentric language: it is more legitimate to say that a person can or cannot do something, than to ground this argument in the essentialism of neurology.

Notwithstanding these possible limitations, speaking in terms of difficulties could also serve as a call for concrete changes in how allistics engage with autistics. As Murray, Lesser, and Lawson observe, autistics may experience 'difficulties with shifting cognitive set except where the target is a strong attractor for that individual: that is to say, where it appeals to one of that person's few prior interests'.[1144] In that sense, during monotropic states, '[n]o alternative attractor may be *apparent*'.[1145] This is indeed a question of lived experience, including, as Haraway reminds us, of perception and vision. The vocabulary introduced by Murray, Lawson, and Lesser carries potential implications for clinical and interpersonal practices: instead of attempting to redirect the attention of an autistic individual through constraint, they suggest that relatives and clinicians should 'start where the child is'.[1146] They advocate for ensuring that

[1143] Murray, 'Attention Tunnelling and Autism', n.p.
[1144] Murray, Lesser, and Lawson, 'Attention, Monotropism', p. 143.
[1145] *Ibid*., p. 146, emphasis mine.
[1146] *Ibid*., p. 153.

autistics build connections to other people, activities, and objects through the pursuit of their *own* interests and endogenous motivation, instead of assuming that autistics are fundamentally *unable* to connect with others.

Admittedly, there is something quite intriguing – perhaps more-than-human[1147] – about the idea of attractors of interest. It invites us to explore the many ways in which we, as human animals, might not be *as* free to determine ourselves and our actions as we commonly imagine. But hyperfocus relies on interests, not mechanics. Interests (from Latin '*inter esse*', 'being in-between') are forms of spontaneous movements that allow us to get out of ourselves. *To be interested* is to let oneself drift into the space between subject and object, entering a transformative 'contact zone'[1148] created by the situated encounter of an object. The 'ecstatic joy' mentioned by Murray, Lesser, and Lawson[1149] speaks to this experience: autistic interests are about *ekstasis*, about standing outside oneself and being transported. Interests, then, embody both a form of capture and a means of letting oneself go.

The state of flow, as psychologists Jeanne Nakamura and Miháli Csikszentmihalyi define it, is 'the experience of complete absorption in the present moment'.[1150] It requires a positive affective, cognitive, and physiological disposition. Entering a state of hyperfocus, monotropism, or flow implies a disposition to letting oneself go. In my case, hyperfocus is one of the ways in which I feel connected to myself, but also to the world and to others: ideas flow through me, and I give myself over to the joy of infodumping my partner about my current special interest or writing a thesis chapter such as the one you are reading. Hyperfocus differs from interactions with allistics or from standing in an unbearably overstimulating environment. In the latter cases, I feel *taken* out of myself, *captured* by others in a way I do not desire. Yet I resist; I can feel myself *tending* towards objects of my own interest rather than the ones imposed on me. The distinction between hyperfocus (or monotropic attention) and capture by unpleasant stimuli lies in desire. Hyperfocus oozes with desire; it brings a sense of meaning, fulfilment, and connection.[1151] In contrast, masking and acclimatising to an unwelcoming environment or social setting feels effortful, exhausting, and meaningless.

Therefore, what the theory of monotropism encourages us to say might not be that autistics are *drawn* to restricted, focused interests rather than multiple, open ones, let alone that this is due to their neurology. Instead, it shows that they (perhaps unconsciously) desire

[1147] Dinah Murray explains that, '[t]hough this is mainly about humans, all living things have survival interests and act to further them'. See Murray, 'Dimensions of Difference', n.p.
[1148] Haraway, *Companion Species Manifesto*. The figure of the contact zone as a descriptor of autistic experience will be explored in a future research project.
[1149] Murray, Lesser, and Lawson, 'Attention, Monotropism', p. 141.
[1150] Jeanne Nakamura and Mihály Csikszentmihalyi, 'Flow Theory and Research', In *Oxford Handbook of Positive Psychology*, ed. Shane Lopez and C. R. Snyder, pp. 195–206, Oxford: Oxford University Press, 2009.
[1151] For further conceptualisation of desire as a meta-predicate of (hum)animal life, see Chapter 6.

transportation, so much so that they withhold other objects from affecting them or striking them with perceivable meaning. Autistics possess a particular disposition to let themselves go, to *give themselves over* to their objects of interest. In this respect, the affect- or interest-based nature of the theory of monotropism aligns well with a phenomenological approach and a non-mechanistic understanding of biology and psychology.[1152] Phenomenology does not assume the validity of our preconceptions about ourselves, which are often based on theories and tropes of which we might be unaware. Instead, it calls on us to interrupt common sense – our natural intuition of knowing ourselves and the world – and attend to the ways in which our consciousness actually turns to objects in the world. From the perspective of monotropism, it may follow that autistic phenomenology – if such a thing exists in singular form – is characterised by a disposition for being intensely interested in singular objects at a time.

d) Conclusion: Towards Epistemic Response-Ability in Autistic Situated Knowledges

Through the case study of the theory of monotropism, I have sought to complicate our understanding of autistic situated knowledge production and self-identification. Drawing on Haraway's reflections on the difficulties of navigating between naïve empiricism and identity politics, on the one hand, and radical social constructivism on the other, I aimed to consider the kind of objectivity autistics might claim in producing and disseminating knowledge about autism.

As I have shown, knowledge and identification do not derive immediately from direct experience but are mediated by histories of science – such as the age-old debates about free will and determinism – that remain shot through with power imbalances and political (as well as clinical or pedagogical) consequences today. This recognition calls for renewed attention to the non-innocence of the metaphors, tropes, and images we employ, and to the complex (and sometimes coexisting) histories of oppression and pathologisation they may carry. More than mere supplements that serve to popularise scientific facts, tropes and metaphors play a determining role in the production of scientific facts and paradigms.

In this sense, my exploration of the metaphors and tropes drawn from physics and plant biology, particularly the concept of biological tropisms, has been intended to highlight the importance of contextualisation and mediation against the idea – shared by Murray, Lesser, and Lawson – that autistic people tend to be unconcerned for the indirect meanings and social

[1152] Phenomenology is, precisely, the methodology used by Dinah Murray in the last paper she published before she passed away. See Murray et al., 'The Human Spectrum'.

function of language. In a world saturated with ableist and pathologising discourse on autism across science, culture, and activism, it is crucial to remain accountable for the tropes, swerves, and shifts that we (sometimes unconsciously) perform, and for the contexts in which they circulate. The example of biological tropisms condenses a set of politically charged imaginaries about free will and determinism, with effects on both autistic humans and nonhuman animals.

What is at stake in engaging with the theory of monotropism as I have in this subsection is not the impossible project of discarding 'bad' or 'guilty' metaphors in favour of 'innocent' ones, but rather the ongoing task of interrogating what prompts us to choose particular figures, and what frameworks and realities they summon into being. Following Leigh Star's question, cited by Haraway, we must ask ourselves: '*Cui bono?*'[1153] – who benefits when we use this or that metaphor? To remain accountable – or rather 'response-able'[1154] – in this context is not necessarily to excise vegetal or physical metaphors or neurological discourse from our accounts of human subjectivity simply because they emphasise involuntarity, but rather to pay more attention to the logics of dehumanisation (through reductionism and bestialisation) they might reinforce at the intersection of neurodiversity and animality.

3. The Neurodivergent Politics of Neurology and the Temptation of Innocence

a) The Neurological Turn and the Neurocultures of Neurodiversity

In this subsection, I return to the histories of the neurological turn to examine the political implications of neurological discourse in neurodiversity studies. By challenging the idea of a psycho-affective origin of autism, the neurological turn enabled the neurodiversity paradigm to emerge, freed from the pathologising frameworks of psychoanalysis and behaviourism. Whereas autism was once thought to result from parental affective coldness or to be amenable to intensive behavioural reprogramming, the neurological turn reframed it as a neuro-developmental condition.

Yet by anchoring the genesis of autism in the brain, this turn has often crystallised problematic forms of neuroreductionism, reducing autistic traits to their physicochemical dimensions and thereby reducing autism to unintentionality or non-subjectivity. Locating autism within the body – rather than the mind or a combination of both – has had

[1153] Donna J. Haraway, *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncoMouse™: Feminism and Technoscience*, New York and London: Routledge, 2018, p. 38.
[1154] Donna J. Haraway, *When Species Meet*; Haraway, *Staying with the Trouble.*

depathologising effects: by replacing the malleability of the psyche with the alleged innateness of neurology, the brain has become a justification for autistic traits: from the signal of a lack of willpower, the difficulties encountered by autistic people have been successfully reframed as the product of brain wiring. This justification continues to function to this day because, in the social unconscious, 'the body is always [deemed] morally innocent'.[1155] However, by giving in to the temptation of innocence, such discourse can also be particularly harmful, portraying autistic people as less-than-human and thus reinforcing the humanist mind/body dualism.

In this subsection, I draw on the work of Francisco Ortega and Fernando Vidal to offer a more thorough examination of the role that neurocentrism has played in the development of neurodivergent politics. Ortega and Vidal provide a nuanced analysis of the effects of neurological discourse on contemporary society, and particularly on the neurodiversity movement. While their work may read as a critique or rejection of the neurodiversity movement, I suggest it is more accurately understood as a critique of the movement's epistemological foundations. Their expertise in the 'neurocultures' of our time[1156] can help clarify the epistemological, philosophical, and political challenges currently faced by the neurodiversity movement.

Already in the 2000s, during the early stages of the neurodiversity movement, both authors explored the emergence of a 'cerebral subject'[1157] – a form of identification or subjectivation based on descriptions of brains and nervous systems developed within the neurosciences. In a later paper, Ortega applies this conception specifically to the neurodivergent subject.[1158] He argues that, while the turn to the cerebral subject has sometimes been associated with a form of '"neurological self-awareness" and a rejection of psychological interpretations [...] the preference for neurology cannot be reduced to an aversion to psychoanalysis or psychological culture. Instead, it must be understood within the context of the diffusion of neuroscientific claims beyond the laboratory and their penetration in different domains of life in contemporary biomedicalized societies.'[1159]

In this context, Ortega explains that even though autistic people's 'identitarian assertion is often linked to the cerebralization of autism', the neurocentric language they employ is 'often imprecise'.[1160] In other words, while the language of neurology has permeated the

[1155] Francisco Ortega, 'The Cerebral Subject and the Challenge of Neurodiversity', *BioSocieties*, vol. 4 (2009), p. 434.
[1156] See Francisco Ortega and Fernando Vidal (eds.) *Neurocultures: Glimpses into an Expanding Universe*, Berlin: Peter Lang Verlag, 2021.
[1157] Francisco Ortega and Fernando Vidal, 'Mapping the Cerebral Subject in Contemporary Culture', *RECIIS—Electronic Journal of Communication Information & Innovation in Health*, vol. 2 (2007), pp. 255–9. See also Fernando Vidal and Francisco Ortega, *Being Brains: Making the Cerebral Subject*, New York: Fordham University Press, 2017.
[1158] Ortega, 'The Cerebral Subject'.
[1159] *Ibid*., p. 426.
[1160] *Ibid*., p. 427.

neurodiversity movement, this does not imply that autistic and neurodivergent people have finally uncovered their fundamental nature as cerebral beings. Indeed, at the scientific level, '[t]he combination of "neuro" and "diversity" is by no means self-evident'.[1161]

For this reason, '[t]he cerebral subject is an "anthropological figure" that has no reality prior to its performative embodiments'.[1162] This new apparatus of cerebralisation, or the neurologisation of subjectivity, is therefore a product of the mainstreaming of the neurosciences, which has had contrasted effects. Ortega notes that neurodiversity advocates' engagement with the neurosciences is sometimes 'superficial [and] wacky', sometimes 'well-informed [and] serious'.[1163] This neurological turn has also prompted some autistic people to readily embrace cerebral subjectivity, while others have expressed surprise at 'moving into the realm of neurology',[1164] almost despite themselves. While this evidences the ubiquity and hegemony of neurological discourse, it does not make it any less problematic and potentially harmful.

b) The Politics of Neuro-identitarianism and Neuroessentialism

Beyond the reductionist risks of such neurocentric accounts, this 'folk neuropsychology'[1165] also carries the danger of homogenising differences. This ambivalence is reflected in questions of identity, which can produce both positive and negative effects:

> Although, on the one hand, seeing oneself as neurodiver[gent] (that is, cerebralizing autism) strengthens one's sense of identity and helps erase the social stigma often associated with predominant constructions of autism, it may, on the other hand, solipsistically constrict what it means to be human. The search for new and nonpathologized forms of identity and community stands in tension with reductionist forms of identity politics.[1166]

Ortega is concerned that, by engaging with the natural sciences too superficially, neurodivergent people may end up focusing primarily on their similarities rather than their differences. Not only can this lead to reductionist, determinist, or essentialist descriptions of

---

[1161] *Ibid*., p. 440.
[1162] Francisco Ortega and Fernando Vidal, 'Approaching the Neurocultural Spectrum: An Introduction', in *Neurocultures: Glimpses into an Expanding Universe*, ed. Francisco Ortega and Fernando Vidal, Berlin: Peter Lang Verlag, 2021, p. 16.
[1163] Ortega, 'The Cerebral Subject', p. 436.
[1164] *Ibid*.
[1165] Paul Rodriguez, 'Talking Brains: A Cognitive Semantic Analysis of an Emerging Folk Neuropsychology', *Public Understanding of Science,* vol. 15 (2006), pp. 301–30.
[1166] Francisco Ortega, 'Cerebralizing Autism within the Neurodiversity Movement', In *Worlds of Autism: Across the Spectrum of Neurological Difference*, ed. Joyce Davidson and Michael Orsini, Minneapolis and London: University of Minnesota Press, 2013, p. 76.

neurology, but it also risks narrowing the scope of neurodivergent identities: the neurodivergent subject could thus be reduced to the brain alone or to the nervous system. Ortega's conclusions in this instance are alarming: '[t]he brain is a "confining metaphor" […] not open to other domains'[1167] and '[n]eurology thus functions as an instrument with which to erect identity frontiers'.[1168]

While there is certainly value in building community around neurological proximities, the kind of neuro-identitarianism and neuroessentialism consolidated in the neurodiversity movement in the aftermath of the neurological turn may not appear so desirable from a (neuro)queer perspective.[1169] Defining neurodivergent communities based on shared neurology enacts a relatively fixed and essentialist kind of politics, one that collapses differences and relies on overly binary oppositions between an assumed 'we' and 'they'. This is the observation made by Nick Walker in an interview Dora M. Raymaker, where he says:

> In terms of pitfalls to be guarded against, I'd say the big one these days is the far-too-common trend toward viewing neurodiversity through a lens of neuroessentialism, in which all people are seen as divided into rigidly defined, innate, and largely immutable categories or "neurotypes"—that is, each person is categorized as fitting permanently into the box of "neurotypical," or the box of "autistic," or the box of "ADHD," or what-have-you, depending on what "type of brain" they were born with.[1170]

The concept of neurokinship, which groups individuals based on their shared neurotype, exemplifies this essentialist, identity-based approach to political organising. Neurokinship refers to a sense of community among people who share the same neurotype, for instance, autism.[1171] By anchoring kinship in neurotypes, neurodivergent communities construct political bonds based on the workings of the brain: neurotypes become the biological foundation of neurological subjectivity, which is in turn positioned as the foundation of political subjectivity.[1172]

More broadly, today, the neuro- prefix is often appended to existing terms to signal a neurodivergent variation of the phenomenon in question. I argue that we should resist this identitarian approach, which positions neurology and neurological discourse as the exclusive prerogatives and responsibilities of neurodivergent people. This does not mean that we should

---

[1167] Ortega, 'The Cerebral Subject', p. 441.
[1168] Ortega, 'Cerebralizing Autism', p. 83.
[1169] See Butler, *Gender Trouble*; Walker, *Neuroqueer Heresies*; Yergeau, *Authoring Autism*.
[1170] Nick Walker, in Nick Walker and Dora M. Raymaker, 'Toward a Neuroqueer Future: An Interview with Nick Walker', *Autism in Adulthood*, vol. 3 no. 1 (2021), p. 9.
[1171] See Ryan Boren, 'Neurokin', *Stimpunks*, 4 November 2023, accessed 22 September 2025. https://stimpunks.org/glossary/neurokin/.
[1172] See Ryan Boren, 'Neurotype', *Stimpunks*, 17 February 2024, accessed 22 September 2025. https://stimpunks.org/glossary/neurotype/.

oppose the neurodiversity paradigm altogether; rather, this suggests that we should reconsider the meanings and role of neurological discourse in neurodiversity theory and activism. Needless to say, neurology is not limited to neurodivergent beings; it is a feature of most (hum)animal organisms. In other words, if it is true that everyone has a neurology, why should the neuro- prefix come to represent neurodivergent perspectives specifically? Such a use – which is widespread in the neurodiversity movement today – is antithetical to the very concept of neurodiversity, which encompasses the sum of *all* neurologies, whether typical or divergent.

There might be nothing inherently divergent or subversive about neurological discourse in if it is true, as I have suggested, that neurological discourse today primarily justifies neuroreductionist, neuroessentialist, and neuro-identitarian perspectives. In this light, I suggest that neurocentrism has reinforced a particularly identitarian approach to neurodiversity, which in turn renders 'neuro-' available as a marker for identity-based thinking. Before moving forward, I believe it is important to clarify where my critique of identity politics stems from. Admittedly, it is useful to remain critical of the neoconservative reduction of identity politics to the incentivisation of victimhood and the replacement of universalism by particularism. At the same time, following the insights of intersectional feminism and queer studies, we should not rely on identity politics to sustain burgeoning political movements such as neurodiversity.

II — Troubling the Neuro- in Neurodiversity Studies: Neuroqueer Theory, Neurofeminism, Posthumanism

Neurological discourse has served as the conceptual, rhetorical, and political foundation of neurodiversity studies and the neurodiversity movement, and it continues to pervade them to this day. Because of its profound reductionism and other political limitations (such as neuroessentialism and neuro-identitarianism), this neurocentrism should be decentred and subverted. I suggest that, due to the widespread popularity of neurology in neurodiversity studies, we may no longer be able to fully escape neurological discourse in the movement. While a neurological turn founded neurodiversity studies, perhaps the refoundation of neurodiversity studies as a critical and intersectional neurodiversity studies calls for a more-than-neurological turn. In this section, I expand my queerfeminist posthumanist methodology to not only stay with the neurological trouble, but also sow further trouble in neurological discourse.

First, I engage with Nick Walker and M. Remi Yergeau's work, which is foundational to neuroqueer theory. Through their approaches to neurology, both thinkers demonstrate that

neurological discourse tends to pathologise neuroqueer life. Following their critiques, I argue that the 'neuro-' prefix in 'neuroqueer' should be understood not so much as a queering of the brain or a braining of queerness, but as a means of queering and subverting neurocentrism itself.

While Walker and Yergeau have critically engaged with neuroreductionism, neither offers an in-depth investigation of neurology. To further clarify what subverting neurocentrism entails, I turn to Elizabeth A. Wilson's neurofeminism. Rooted in feminist thought, yet critical of feminism's historical anti-essentialism, Wilson invites us to reconsider our theoretical and political suspicions of neurology, which are often grounded in binary and reductionist thinking themselves. Wilson encourages us to move beyond a framework that would position us *for* or *against* neurology, instead imagining new ways of conceiving the nervous system that transcend localisationism, neuroreductionism, and the mind/brain dualism.

In the last subsection, I turn to posthumanist and new materialist thinking to examine two alternative forms of neurological discourse that escape the confines of anthropocentrism. By reconceptualising neurological plasticity beyond neoliberal individualism and reductionist neurological self-help practices, we might imagine new forms of neurological discourse. I propose that neuroplasticity be understood instead as a form of more-than-human co-regulation. I then turn to the recent concepts of *neuro-holography*, developed by Dawn Prince-Hughes, Helen Edgar, and Ryan Boren, and *holotropism*, coined by Hendl H. Mirra, examining their affinities with new materialist thinking and their potentials to reframe the meaning of neurology beyond the human.

1. Neuroqueer Theory and the Subversion of Neurocentrism

Through their approaches to neuroqueer theory, M. Remi Yergeau and Nick Walker have begun to map the intersections of queerness and neurodivergence. Beyond exploring the lives of those who are both queer and neurodivergent – no doubt an important endeavour – they reconceptualise neurodivergence itself as a queering of neuronormativity. In their frameworks, the neuro- prefix in neurodiversity or neuroqueer should no longer be understood as the natural foundation of neurodivergence, but as a site for critical interventions in neurological discourse. While this analytical perspective guides my discussion of neuroqueer theory in the following subsection, I am not suggesting that queerness can be reduced to an analytic or methodology (for example, to subversion), nor am I attempting to erase queer people from the critical project of subverting neurology. On the contrary, queer people have a direct role to play in this endeavour, alongside other populations targeted by neuroreductionism and neuronormativity.

a) **Neuroqueering As Queering the 'Neuro-'**

While neuronormativity is increasingly understood – albeit mostly implicitly – as a broad social regulation of affect, cognition, and behaviour, it is also often conceptualised as the imposition of specific neurological or neurocognitive processes. In such representations, neurodivergence appears not so much as a way of being, or ethos – as I argue it should in Chapter 6 – but primarily as a neurological structure. This is where neurocentrism frequently slips into neuroreductionism. With Nick Walker and M. Remi Yergeau, the connections between neuroreductionism and pathologisation become particularly evident, as do their entanglements with other forms of oppression, such as cisheteronormativity.

In their published contributions to neuroqueer theory, which have established it as a new subfield of neurodiversity studies, Yergeau and Walker gesture towards a subversion of neurocentrism and caution against its uncritical embrace. For example, in *Authoring Autism: Rhetoric and Neurological Queerness*, M. Remi Yergeau playfully invites readers to 'move beyond neurotypical obsession with the brain'.[1173] They observe that efforts to identify the neurobiological substratum of queerness within the medical sciences 'are not all that dissimilar from the localizing compulsions that attend autism research'.[1174] This highlights not only that 'the autistic and the queer are often impermeable',[1175] but also that cisheteronormativity and neuronormativity are historically and rhetorically entangled. One example of this can be found in the way that, during the twentieth century in some countries, gay men were imprisoned, whereas lesbian women were locked up in psychiatric asylums.

Yergeau adds that 'these neuroscientific impulses [are] reemergences of innatist, determinist, reductionist, and essentialist discourses, where "brain constitution serves to predict behavior"".[1176] Yergeau's conclusions echo those I reached in the previous section, noting that neuroreductionism portrays autistic behaviour as less-than-subjective, to the extent that 'involuntarity […] has come to rhetorically typify the life of the neuroqueer'.[1177] Autistics are represented not as the subjective agents of our own behaviours and discourses, but as passive sufferers of pathological symptoms occurring at the physicochemical level.

Similarly, in *Neuroqueer Heresies*, Walker critiques the common tendency to interpret 'neuro-' in reductionist terms. While the book makes extensive use of neurological discourse, it does so in a partly atypical way. Walker explains that

---

[1173] Yergeau, *Authoring Autism*, p. 59.
[1174] *Ibid*., p. 58.
[1175] *Ibid*.
[1176] Dussauge and Kaiser, cited in *Ibid*., p. 59.
[1177] *Ibid*., p. 58.

> [t]he persistence of this reductionist interpretation of neurodiversity is no doubt at least partly due to the fact that when most people see the prefix neuro-, they translate it as brain. But neuro- doesn't mean brain, it means nerve. In my view, the neuro- in neurodiversity is most usefully understood as referring not just to the brain but to the entire nervous system—and, by extension, to the full complexity of human cognition and the central role the nervous system plays in the embodied dance of consciousness.[1178]

Rather than reducing neurology to the brain, or even to the entire nervous system – which he nonetheless emphasises – Walker uses 'neuro' to refer to the *neurocognitive* or, more broadly, to consciousness at large. While the brain is mentioned repeatedly throughout the book, it is often in conjunction with the mind or with whole personhood. In this way, the strategy deployed in *Neuroqueer Heresies* largely consists of redefining the concept in order to make it more inclusive or expansive. In other words, the signifier loses its original signified and can therefore serve a new role. Nonetheless, it appears that for Walker, the nervous system remains the substratum, and perhaps also the cause, of consciousness.

In an email correspondence, Walker encouraged me to nuance my critiques of neurocentrism in neurodiversity and neuroqueer theory, particularly.[1179] He provided a key argument that had only been hinted at in *Neuroqueer Heresies* and which he intended to develop more explicitly in his introduction to a forthcoming anthology, *Neuroqueer Theory and Practice*: that neuroqueering means 'that we're queering and intentionally subverting neurocentrism' and that, ultimately, 'neuroqueer' is to be understood as 'queering the neuro'.[1180] This new insight, which I now treat as a key aspect of neuroqueer theory, follows from a compelling observation. In his email, Walker explained that '[r]ealistically, at this point in the game, we're not going to eliminate the present widespread trendiness of the "neuro–" prefix. But what we ***can*** do is attract readers with the "neuro–" in "neuroqueer," then introduce them to perspectives that subvert neurocentrism and conventional readings of "neuro–."'[1181] While I remain wary of neurocentrism, Walker's point seems persuasive: given the path dependencies surrounding neurological discourse in the neurodiversity movement, it might be strategic to turn our critiques into acts of subversion. This is partly what I seek to do with my call for a more-than-neurological turn in neurodiversity studies, which seeks to reconceive and reimagine neurology while generating new figurations for neurodivergence beyond it.

Building on Yergeau's observations regarding scientific experimentations on queer and neurodivergent brains, and Walker's claim that neuroqueering entails *queering the neuro*, I

[1178] Walker, *Neuroqueer Heresies*, p. 55.
[1179] I thank Walker for prompting me to re-read Yergeau and for indicating key passages to focus on with regard to neurocentrism.
[1180] Nick Walker, email to author, 11 May 2024.
[1181] *Ibid*., bold and emphasis in original.

conclude that the 'neuro-' prefix in neuroqueer theory should be understood not so much as a queering of the brain or a braining of queerness, but as a means of queering and subverting neurocentrism itself. This approach helps resist the effects of neuroreductionism, neuroessentialism, and neuro-identitarianism not only on cisheteronormativity, as Yergeau and Walker propose, but perhaps also on anthropocentrism and dehumanisation.

b) **Anthropocentrism and the Trouble with Neurology**

As was already the case with Judy Singer, most definitions of neurodiversity include an anthropocentric component. As I have argued earlier in this chapter, neuroreductionism is fundamentally entangled with anthropocentrism in the history of neurodiversity. Therefore, alongside Yergeau and Walker's calls for a subversion of neurology, it is important to complement their more-than-neurological claims with a more-than-human horizon to avoid a return to reductionist perspectives.

I begin with Nick Walker's definition of neurodiversity: '*Neurodiversity* is the diversity of human minds, the infinite variation in neurocognitive functioning in our species'.[1182] While clearly less neurocentric than Singer's definition, Walker's conception also focuses exclusively on humans. This deliberate anthropocentrism of neurodiversity is often justified on the grounds that neuronormativity primarily targets human beings, and that neurodivergent politics should therefore address them specifically. Like Singer, Walker links neurodiversity to biodiversity,[1183] but he primarily describes it in human socio-political terms. According to him, neurodiversity is 'a form of human diversity that is subject to social dynamics similar to those that commonly occur around other forms of human diversity, such as racial diversity, gender diversity, cultural diversity, or diversity of sexual orientation'.[1184] Given that the politics of race, gender, culture, and sexuality are, for the most part – or at least most often – limited to human culture and society, it might seem reasonable to restrict neurodivergent politics to the human species.

However, as I demonstrated in Chapter 4, there is no valid reason to exclude nonhuman animals from the scope of neurodiversity, and the same rationale applies to neuroqueer theory.

[1182] Walker, *Neuroqueer Heresies*, p. 33.
[1183] See *Ibid*., p. 74, 86, 109.
[1184] Walker, *Transformative Somatic Practices*, p. 25. It is worth saying here that using describing various systems of oppression (for instance, racism or sexism) as analogous or similar, rather than co-constructing or entangled, is increasingly perceived as inaccurate and potentially problematic. While Walker's framework focuses on the intersection of neurodivergence and queerness, his mobilisation of race in analogy to neurodivergence in this citation may seem more superficial and may erase the experiences of people at once neurodivergent and racialised. At a rhetorical level, particularly, such a use of analogy may appear as a rhetorical prop that instrumentalises an oppression or political struggle for the sake of another, which is particularly unsettling given the hegemonic whiteness of neurodiversity studies and the neurodiversity movement. This calls for further examination of, and political organisation against, the *entanglement* of neuronormativity and racism.

In fact, revisiting Yergeau's and Walker's writings reveals references to dehumanisation that can be extended to support my antispeciesist-posthumanist approach. Indeed, Walker notes, with reference to Yergeau, that 'narratives of involuntarity, which frame autistic people not as people but as clusters of symptoms and behaviors mechanistically attributable to specific quirks of neurobiology, constitute a "project of dehumanization"'.[1185] Moreover, he observes that 'due to alleged deficiencies such as these [lack of empathy, lack of imagination and symbolic thought, lack of introspective abilities, lack of basic capacities for self-awareness and self-reflection], autistic people are [framed as] not fully human or not human at all'.[1186]

Thus, when Yergeau concludes their discussion of scientific experiments in neurology by highlighting that '[t]his "braining of the human" is not only enabled by the heterosexual gaze, but by an able-bodied fascination with identifying and containing that which is neurologically queer',[1187] I suggest we extend the critique to include speciesism (along with racism). The capacity of neuroreductionism to dehumanise autistic behaviour stems from the very centrality of the bestialising trope of involuntarity in modern-colonial representations of animality, a theme I have addressed repeatedly. In this context, the stark dualism between human and animal has functioned as a tool of hierarchisation, where individuals who fail to display traits associated with the human are dehumanised, and often animalised or bestialised. These processes entail relegation to deficiency, barbarism, and unintentionality – everything that the human is (supposedly) not. Conversely, humanisation involves recognising an individual as embodying the normative ideal of the 'human', an ideal whose very existence depends on the abjection of others to the less-than-human, and particularly to the 'animal'.

Within this framework, the neurocentric grammar of neurodiversity – with the proliferation of neuro- terms such as, among others, 'neurodiversity', 'neurodivergence', or 'neurokinship' – might function as a linguistic indicator of the trouble with the *neuro* in neuronormativity:

> The decision to continue to work with the neuro in neurodiversity is therefore less an alignment to the neurological per se than an engagement with the presuppositions of neurology as a science for and of the neurotypical, white human, a science that far too rarely calls into question the assumptions that underlie either its humanism or the categorical imperative to perform according to its normative expectations.[1188]

Rather than rejecting neurological discourse outright, Erin Manning (like Walker and Yergeau) chooses to preserve traces of pathologisation and oppression in the very name of the movement

[1185] Yergeau, *Authoring Autism*, p. 9, cited in Walker, *Transformative Somatic Practices*, p. 34.
[1186] *Ibid*., p. 76.
[1187] Yergeau, *Authoring Autism*, p. 59.
[1188] Manning, *For a Pragmatics of the Useless*, p. 2.

that claims to resist it. In doing so, she introduces an almost queer form of *neurology trouble* into neurodiversity, creating a space of resistance to the whiteness, humanism, and neurotypicality of the neuro. In this regard, my own perspective aligns with Gramsci's famous dictum: 'pessimism of the intellect, optimism of the will'. While I borrow this subversive gesture with the idea of the *more-than-neurological*, I feel compelled to repeat that, in today's neurodiversity movement, neurocentrism is more often treated as a legitimate foundation than recognised as part of the problem. Its entanglements with anthropocentrism and ethonormativity – a concept I develop in Chapter 6 – are also frequently overlooked. Therefore, by advocating for a more-than-human and more-than-neurological turn in neuroqueer theory and neurodiversity studies, I seek *both* to preserve a space for the subversion of neurology *and* to lay the groundwork for alternative biological imaginaries beyond it.

In this context, moving beyond neuroreductionism might require resisting the speciesist ideals that underpin both the pathology paradigm and neurological discourse. Rather than using hegemonic concepts and frameworks to reclaim our humanity – a gesture that often leaves anthropocentrism and ethonormativity unchallenged – we might instead attend to our own humanimality, that is, to the more-than-human dimension of our own experiences. In doing so, we might discover that animality is nothing like what dualist and anthropocentric thought has led us to believe, and that it can, in fact, provide rhetorical resources for expressing our neuroqueerness. What I propose, then, is to reclaim animality as a way of bypassing the hierarchising logic at the heart of anthropocentric dualism. I return to these ideas in detail in Chapter 6.

c) Towards a More-Than-Neurological Turn in Neuroqueer Theory: Post-Humanistic Psychology

A step in this direction can already be taken within neuroqueer theory, with Nick Walker's work on transformative somatic practices, which shifts the focus from neurology to embodiment, affect, and spirituality. While Walker does not reject neurological discourse entirely, we now understand that he seeks to expand the signifier 'neurology' to encompass 'the full complexity of human cognition' and 'the embodied dance of consciousness'. His work thus explores new pathways towards psychospiritual wellbeing and the 'realisation of positive human potentials'[1189] beyond interiorised forms of 'character armour' and masking. In doing so,

[1189] See Walker, *Transformative Somatic Practices*, pp. 4, 6, 8, 11.

it opens up a more affirmative approach to neurodivergence that moves beyond neurocentrism, particularly by experimenting with transformative somatic practices.

Walker's project is animated by a political agenda that can be read as part of the broader struggle for the liberation of neurodivergent humans from neuronormativity and cisheteronormativity. As I mentioned in Chapter 2, Walker's approach is explicitly indebted to humanistic thought. Indeed, he argues that 'neurodivergent people ought to be entitled to basic human dignity, liberty, empowerment, wellbeing, and social equality'.[1190] Yet while Walker's proposals are oriented towards the realisation of *human* well-being and *human* potential, I suggest that they can and should be expanded beyond the human, into a broader animal context. This is particularly crucial in the age of critical neurodiversity studies, which is a time for critical self-evaluation and radical intersectional reconfiguration. In order to expand neurodiversity studies and neuroqueer theory beyond anthropocentrism, a more-than-neurological turn might be necessary. To this end, humanistic psychology might be productively reframed through a posthumanist lens.

Despite its anchoring in an anthropocentric framework, humanistic psychology emphasises the holistic and non-dualistic nature of bodyminds, breaking with reductionist thinking. As Walker puts it, 'human beings are not minds riding around in machines made of flesh and bone, we are bodies that think and feel and perceive—*psyche-somas* (Winnicott, 1958/1992), or *bodyminds* (Dychtwald, 1977/1986)'.[1191] Because human organisms are non-dualistic entanglements of body and mind rather than machines, 'each person performs a unique human presence in the world',[1192] and one should thus 'examin[e] how human experience is endowed with meaning'.[1193] I suggest that it is precisely because they are animals that humans enjoy a psychosomatic, existential, and meaningful presence in the world. The elements that Walker highlights as central to the autistic experience should therefore not be understood as specifically human in nature, but as humanimal. Humanistic psychology could thus be rearticulated in a more-than-human way, perhaps in the form of a *post-humanistic psychology*. In the way it attends to embodiment and somatic normativity, it might constitute a promising tool for a more-than-human and more-than-neurological turn in neuroqueer theory.

That said, the post-humanistic psychology I envision is very different from the one advocated by Patrick M. Whitehead in Chapter 2. Whereas Whitehead suggested expanding psychology all the way to non-living beings, my approach is admittedly biocentric, even more so, zoocentric. It contends that the psychological, existential, and phenomenological

[1190] *Ibid*., p. 26.
[1191] *Ibid*., p. 53.
[1192] *Ibid*., p. 54.
[1193] *Ibid*., p. 74.

dimensions of human experience are often to be found in the rest of the animal realm, not so much because other animals resemble humans, but because these are fundamentally animal traits to begin with. In that sense, in order to take its more-than-human turn, neuroqueer theory needs a blend of humanistic and animal psychology. Philosophical ethology constitutes an ideal foundation for this; it is explored in Chapter 6. In the next two subsections, however, we will dwell a little longer with neurology to examine how we may expand and trouble the 'neuro' within neurodiversity.

2. Learning from Feminism: Reconsidering the Neurobiology of Autism

As Ortega and Vidal have taught us, neurological accounts can still make a productive contribution to neurodivergent activism. As Ortega suggests, we should 'call into question the assumption that solipsistic and reductionist ways of being and sociality necessarily result from cerebral descriptions of personhood and community'.[1194] Yet for neurology to have a less pathologising effect on neurodivergent politics, it seems that a more nuanced understanding of it is needed. To articulate this nuance (and proliferate new understandings of 'neuro' more broadly), I turn to Elizabeth A. Wilson. While Wilson's work is grounded in feminism rather than neurodiversity, it provides valuable insights that can be transposed to neurodiversity studies.

a) Neurofeminism and the Limits to Anti-Essentialism

In a commentary on the feminist critiques of neurological theories of homosexuality – critiques that could perhaps be extended to my previous analyses of neuroreductionism – Wilson suggests that 'such critiques seem to be premised on an unarticulated but nonetheless strongly held conviction that neurology itself is regressive and politically dangerous. Such is the strength of the association of neurology with reductionism, and reductionism with the politically regressive, that it is widely presumed (but seldom argued) that neurological explanations of homosexuality must necessarily lead to reductive, homophobic ends'.[1195]

Read through Wilson's commentary, Manning and Massumi's critique of the 'neuro' as inherently neurotypical, just like the one I developed earlier, might appear to leave little room for discussion. Beyond the legitimacy of our anti-neurological sentiments, the temptation to

[1194] Ortega, 'Cerebralizing Autism', p. 76.
[1195] Wilson, *Neural Geographies*, p. 13.

reject neurology altogether should not reproduce feminism's historical relationship – in both its theoretical and activist forms – to biology and neurology in particular, as fields perceived as fundamentally dangerous and conservative. Wilson explains that '[t]here has been a persistent deflection of neurological explanations of psychological or behavioral attributes on the grounds that such explanations are a priori reductionist and apolitical. Neurological explanation is not simply antipsychological; it is reductively asocial and acultural.'[1196]

Following a broadly social-constructionist approach, social justice movements such as feminism and disability activism have historically emphasised the sociopolitical construction and regulation of 'natural' phenomena.[1197] This earned them the criticism of some posthumanist and new materialist feminists[1198] and crip studies scholars,[1199] who emphasise the agential capacity of biological and physical matter to affect and transform sociopolitical constructions. Far from occupying the other side of a nature/culture or constructionism/realism binary, the new materialist turn has developed a productive relationship with constructionism, at once critiqued and expanded.

In this context, Elizabeth Wilson, who writes in the 1990s and 2000s, at the start of the new materialist turn, describes neurology as a particularly intense site of feminist critique, in which an essentialist and deterministic neurological science is opposed to a socially, culturally, and politically charged psychological field. She explains that psychological or phenomenological descriptions were often presented in opposition to neurological descriptions, so that the former should be saved from the latter and its contamination. This gap between neurology and psychology went beyond the feminist field alone and permeated the sciences themselves. In the context of the psychology of autism, for example, Dinah Murray et al. originally described their psychological theory of autistic monotropism by saying: 'Our own proposal is about cognition: we do not know its relevance to neuronal activity'.[1200]

According to Wilson, such a rejection of neurology is based on a misrepresentation: 'This gesture to a nonneurological culture or environments not only misrepresents the complex relation between neurology and its outside, but also, by locating malleability, politics, and difference only in the domain of culture or environment, it abandons neurology to the very biologism it claims to be contesting'.[1201] This avoidance of the biological led to an impoverishment of feminist theories, which, as a result, were bound to ask the wrong questions

[1196] *Ibid*.
[1197] See Butler, *Gender Trouble*; Oliver, 'The Politics of Disablement'; Shakespeare, 'The Social Model of Disability'.
[1198] See, for example, Barad, 'Posthumanist Performativity'.
[1199] See, for example, Aimi Hamraie and Kelly Fritsch, 'Crip Technoscience Manifesto', *Catalyst: Feminism, Theory, Technoscience*, vol. 5, no. 1 (2019), pp. 1–34.
[1200] Murray, Lesser, and Lawson, 'Attention, Monotropism', p. 144.
[1201] Wilson, *Neural Geographies*, p. 16.

and provide equally unsatisfactory answers: '[a]fter all, how can a critical habit nurtured on antibiologism produce anything but the most cursory and negating critique of biology?',[1202] Wilson asks. Worse still, according to the feminist thinker, this antibiologism also had repercussions for feminist activism: '[t]he political self-evidence of this gesture to neurology's outside is legitimated by feminism's naturalized antiessentialism (here specifically, antineurologism): but this antiessentialism is also the means through which such political interventions inevitably disappoint'.[1203]

With this in mind, Elizabeth Wilson urges readers to beware of 'arguments for or against neurology'[1204] and of binary oppositions – particularly between the phenomenology of lived experience and neurological scientism – which only generate 'impoverished readings'.[1205] Since the 1990s-2000s, posthumanist and new materialist approaches have brought about a real paradigm shift, and feminism has been engaging with the life sciences in more complex ways. New approaches within the neurocognitive sciences (often associated with neuroplasticity) and philosophy (such as enactivism and neurophenomenology) have also helped bridge the gap between the neurosciences and psychology. In these approaches, neurology is no longer conceived as a field limited to physicochemical phenomena, and psychology has begun to develop accounts that take seriously the material nature of the psyche.

Following Wilson's observations, I should reiterate that my critiques of neurocentrism refer not so much to neurology as a science, which, I insist, is not necessarily more guilty or innocent than others, but to neurological discourse as developed within and beyond the sciences, in the theoretical foundations of neurodiversity studies and the self-advocacy of neurodivergent communities. In what follows, I seek to clarify that the forms of neuroreductionism, neuroessentialism, and neuro-identitarianism I have objected to do not attach to neurology universally, but through specific contexts and rhetorical apparatuses which can be subverted.

b) **Towards Neurodivergent Theories of Autistic Neurology**

There is a clear observation to be made based on Wilson's writings. Indeed, I contend that neurodiversity studies is currently caught up in a *neurology trouble*, which means that, much like my own hesitations, it is torn between rejecting essentialism and biological depth and its

[1202] *Ibid*., pp. 15–16.
[1203] *Ibid*., p. 16.
[1204] *Ibid*., p. 13.
[1205] *Ibid*., p. 3.

legitimate desire for a serious and profound relationship with the neurosciences.[1206] This produces chronically insufficient conceptualisations of the role neurology should play in neurodiversity. Faced with these neurological troubles, my own inclinations are to move beyond neurocentrism altogether, but I strive in the following pages to contribute to the discussion by attempting to trouble the 'neuro-' in neurodiversity.

This strategy is rendered all the more necessary given that most neurodiversity scholars, to this day, have preferred to move forward with neurological discourse – only sometimes considering the possibility of exploring its potential subversion – instead of rejecting it altogether. In neurodiversity studies, some scholars (beyond Yergeau and Walker, whom I have already mentioned) have therefore positioned themselves in explicit defence of a non-dualist understanding of neurology. In their recent book, *Empire of Normality*, Robert Chapman suggests that 'the "neuro" suffix emphasises the embodied nature of the mind, and [...] cognition is inseparable from the body, and beyond that, the world'.[1207] Similarly, Jackie Ellis proposes a form of 'strategic essentialism' whereby the sometimes essentialist and reductionist discourse of neurocentrism is mobilised for political purposes, without adhering to its underlying principles.[1208]

Yet while I agree with the idea – shared by Chapman and Walker – that cognition is inseparable from the body, I am less convinced that the neuro- prefix in current neurological discourse truly encompasses the whole body, let alone the world. I am also not persuaded that, by repeatedly engaging in the performativity of neurocentric discourse, we will not end up believing into the appearance of its substance, to reiterate the Butlerian phrase examined in Chapter 4. On the contrary, I believe that discourses mobilising neurology and interventions defending neurology without examining how it is actually taken up by neurodivergent people, or the (potentially harmful) effects it produces, do little to mitigate anti-neurological sentiments.

As Ortega and Vidal remind us, although the neurodiversity movement and neurodiversity studies have relied on the neurological turn to develop, they have rarely paid close attention to the onto-epistemology of neurology. The problem is that autistic people 'want to have the benefits of a clear and objective identity (biologically grounded) without paying the toll of weak or strong essentialism'.[1209] This increasingly explicit wariness of essentialism – in relation to neurodiversity studies' recent ventures into queer theory – has prompted conversations about the need to reconceptualise the role of the 'neuro' in neurodiversity, as

[1206] Contrary to feminism, however, the neurodiversity movement has been permeated by essentialism from the start, before turning to anti-essentialism in the last decade. In other words, it is taking somewhat of an opposite route to feminism, while ultimately facing similar tensions and discussions.
[1207] Chapman, *Empire of Normality*, p. 139.
[1208] Jackie M. Ellis, 'Imagining Neurodivergent Futures from the Belly of the Identity Machine: Neurodiversity, Biosociality, and Strategic Essentialism', *Autism Adulthood*, vol. 5, no. 3 (2023), pp. 225–35.
[1209] Ortega, 'Cerebralizing Autism', p. 83.

seen in the works of Yergeau and Walker. But while Yergeau and Walker have voiced a desire for a less reductionist engagement with neurology – and even called for its subversion – they have not yet followed through with a regrounding of neurodiversity studies in new theories of neurology. This presents significant challenges, for if 'neuroqueer' is to be understood as a subversion of neurocentrism rather than merely a neurodivergent approach to queerness, it is difficult to see how other 'neuro-' approaches (e.g. neuromarxism, neurotrans theory, etc.) can continue to use the prefix without appearing to embrace neuroessentialism. Until neuroqueer theory successfully salvages the 'neuro' from its harmful tendencies, and unless all other neuro-concepts symbolically situate themselves as subsets of neuroqueer theory, they might risk remaining mired in deadly neurological troubles.

In other words, until we help new meanings of 'neuro' proliferate beyond neuroreductionism, neuroessentialism, and neuro-identitarianism – what we might call *queering neurology*, all neuro-concepts risk appearing to signify nothing more than 'by and for neurodivergent communities', framed in essentialist, identitarian, and reductionist terms. At present, however, neurodiversity studies has not engaged deeply enough with the philosophy of neurology and remains anchored in the mainstream understanding of neurology. It is unclear whether this will change in the near future. Much of Walker's work, for example, better aligns with current efforts to reconceptualise divergence beyond neurocentrism, particularly by emphasising the affective and somatic dimensions of autism.[1210]

In this respect, moving around the problem by focusing on other planes of existence might not be sufficient to solve our neurological trouble. Wilson's diagnosis of 1990s feminism might thus be extended to current-day neurodiversity studies, which engages with neurology only superficially:

> [e]ven though questions of 'the body' have become increasingly fashionable in all manner of feminist [and we might add, neurodivergent] projects [...], the schedule of feminism's [and perhaps neurodiversity studies'] antibiologism has been little altered. [...] Despite an avowed interest in the body, there is a persistent distaste for biological detail. The body is read as a social, cultural, experiential, or psychical object that touches on the biological realm only lightly, discreetly, hygienically. The body at the center of these projects is curiously abiological.[1211]

Alongside calls within late-twentieth-century feminist theory to engage with the material and biological dimensions of embodiment (and not only its linguistic or experiential side), neurodiversity studies should also engage more directly with neurological matter if it wants to

[1210] Walker, *Transformative Somatic Practices*.
[1211] Wilson, *Neural Geographies*, pp. 14–15. This quote might not apply to large strands of feminist theory today (especially material and posthuman feminisms), but the antibiological and anti-essentialist sentiments it describes can still be observed in some activist circles.

carry on with its neurocentrism. Beyond the social model of disability, which emphasises the social construction of disability, what can neurodiversity say about autistic neurobiology? To pursue this, we might choose to follow the feminist approaches to disability and neurobiology. This is crucial for developing accountable and situated knowledges of neurodivergence, particularly at a time when the neurosciences are generating new problematic imaginaries and politics. In this regard, the neurofeminist approach offered by Wilson provides a potential foundation to develop new theories of neurology in neurodiversity studies.

In *Psychosomatic: Feminism and the Neurological Body*, for example, Wilson challenges the reduction of the nervous system to the brain, extending neurology all the way to the gut.[1212] Contrary to the dualistic approach that would separate neurology, reduced to the brain, and psychology, reduced to cognition and consciousness, Wilson maintains that the entire nervous system is charged with affects, beginning with unconscious ones. Drawing on the early work of Freud, she presents a relational and malleable neurobiology that avoids determinism and calls for the development of a feminist theory of neurology.

By doing so, she opposes the view of neurobiology as a necessarily patriarchal and autocratic science, a dualistic vision that treats neurology as the cause of psychic experiences while ignoring how the nervous system is itself involved in these experiences. Instead, Wilson argues that nervous systems are *affected* from within and from without by a variety of agents, and that they are also *affective*. This means that the affects constituting our psychologies are not confined to the mind but run through the body. Increasingly, body parts such as the gut have been described as a 'second brain' in Western societies. For Wilson, then, there exists a form of infra-conscious psychology of the gut that is intimately intertwined with the conscious psychology of the mind.[1213]

Often described as a part of material and new materialist feminisms as well as feminist posthumanisms, Wilson's work draws on a nondualist ontology that might help us rethink the role of neurology in contemporary neurodiversity. Beyond troubling the neurological signifier – something we also observed in Manning and Walker – Wilson's writings can help us trouble the meanings of neurology itself by developing new ways of interpreting neurological data and phenomena, particularly, as far as this thesis is concerned, in relation to autism.

Nonetheless, Wilson's neurofeminism exemplifies a common (re)turn in contemporary philosophy to a form of animism or panpsychism, where matter itself is attributed sensibility, if not sentience. My own perspective is more indebted to the perspective of animal phenomenology, for which the psyche is to be found, through *behaviour*, in the holistic structure

[1212] See Elizabeth A. Wilson, *Psychosomatic: Feminism and the Neurological Body*, Durham and London: Duke University Press, 2004.
[1213] See Elizabeth A. Wilson, *Gut Feminism*, Durham and London: Duke University Press, 2015.

of the organism, rather than located in a material substratum such as the brain or the gut. Nonetheless, Wilson's work helps us take neurology more seriously and reconsider the neurobiology of autism.

The Intense World Theory of autism, examined in Chapter 1, has already provided us with useful data to reflect on. Moreover, it is worth noting again that scientific agendas are often closely entangled with the evolution of political, or rather biopolitical, representations of autism, whether through influencing them or being influenced by them. In contemporary neurobiological research, autism is increasingly represented through imaginaries of leakiness and porosity, which break from the traditional figuration of autism as closure and hermeticism. In line with my parasitic readings of autism in Part I of the thesis, I suggest that the traditional figuration of autism as a prototypical or radicalised form of human boundedness corresponded to a particular stage of (neo)humanist thought and Western modernity. In a neoliberal era that increasingly assimilates biopolitical figures of porosity, contamination, and leakage in the form of dynamism and flexibility, this traditional model of autism might no longer be successful in repressing conservative fears and anxieties. In a contemporary world characterised by pandemics and global pollutions, the comfortable view of humans as hermetic organisms is indeed shattered, and the biopolitical valuation of individual boundedness is increasingly replaced by a conception of human biology as openness, flexibility and adaptability. This aligns with the descriptions of neurodivergent assimilation in the era of neoliberal capitalism discussed in Chapter 4.

In fact, these various regimes of biopolitical thought might appear to coexist with one another. In the next subsection, I show how the neoliberal era of biopolitical thought is associated with a turn towards practices that instrumentalise autistic neuroplasticity along productivist logics. In this subsection, I examine how the older regime of individual boundedness continues to operate, targeting autistic forms of leakiness and permeability perceived through pathologising notions of excess, contamination, and loss of control.

A first step in this biopolitical shift happened with the moral panic known as the 'autism epidemic', a pseudoscientific myth which has cast vaccines and heavy metals as potential 'risk factors' for autism, despite frequent debunking in autism science.[1214] In these theories, it is humans' vulnerability to micro-pollutants, that is, their fundamental biological plasticity and porosity, that is targeted as the cause of an allegedly pathological condition of autism. This example reveals a coexistence of the traditional biopolitics of disability as a tragedy and a

[1214] On the myth of vaccination as a cause of autism, see Michael Davidson, 'Vaccination as a Cause of Autism - Myths and Controversies', *Dialogues in Clinical Neuroscience*, vol. 19, no. 4 (2017), pp. 403–7. On heavy metals, such as mercury, and autism, see Mel Y. Chen, 'Following Mercurial Affects', in *Animacies: Biopolitics: Racial Mattering, and Queer Affect*, Durham and London: Duke University Press, 2012, pp. 189–221.

terrible life event, and the neoliberal biopolitics of neurodivergence as an alternative form of crip productivity. In the current neofascist resurgence, the traditional model is making a steep return, particularly in the United States of America since Robert Kennedy Jr's appointment as Health Secretary.[1215]

The shift towards neurobiologies of autistic permeability is also apparent in scientific studies and their dissemination in popular science media. In many cases, the 'leaky' dimension of autistic biology serves not only as an explanation of the aetiology of autism, but as an explanation of the origin and cause of specific autistic 'symptoms' or traits. This is the case with sleep issues in autistic people. A 2021 study, for instance, suggested that genetic mutations in brain glia were the cause of insomnia.[1216] According to this study, it is not the neurons themselves which were affected, but the glial cells, which constitute the protective environment of the nervous system. In the journalistic coverage of this study, this phenomenon was assimilated to 'leaks' in the glial 'brain-blood barrier', that is, to an inability of the glial cells to remain impermeable to serotonin, which would cause higher levels of serotonin and, therefore, insomnia.[1217]

Another example is found in theories which suggest that autistic sensory overload is due to channelopathies, namely, pathologies of the synapses, where receptors of neurotransmitters might be dysfunctional. Such pathologies are described as causing 'leaks' of molecules such as calcium or magnesium and may thus end up provoking a faulty transmission of information in the nervous system. In a 2023 study, the observation that calcium or magnesium leaks from cells prompted the authors to propose a treatment focused on supplementing calcium and magnesium in autistic individuals.[1218] More generally, different strands of medical research have been focusing on synaptogenesis (the formation of synapses), synaptic plasticity, and synaptic transmission, as phenomena from which autism may perhaps originate.

In another case, it is a 'leaky gut' which is said to affect autistic 'symptoms'. A 2025 magazine review of scientific research reported that loosening of tight junctions in the intestinal lining appears in higher proportions in ADHD and autistic individuals.[1219] When weakened, the

[1215] See, for example, Sheryl Gay Stolberg, 'Kennedy Says He Told C.D.C. to Change Website's Language on Autism and Vaccines', *The New York Times*, 21 November 2025, accessed 12 March 2026. https://www.nytimes.com/2025/11/21/us/politics/rfk-jr-cdc-vaccines-autism-website.html.
[1216] See Mireia Coll-Tané et al., 'The CHD8/CHD7/Kismet Family Links Blood-Brain Barrier Glia and Serotonin to ASD-Associated Sleep Defects', *Science Advances*, vol. 7, no. 23 (2021).
[1217] See Charles Q. Choi, 'Sleep Problems in Autism May Stem from Leaky Brain Barrier', *The Transmitter*, 23 July 2021, accessed 23 January 2026. https://www.thetransmitter.org/spectrum/sleep-problems-in-autism-may-stem-from-leaky-brain-barrier/.
[1218] Sarah Al-Mazidi et al., 'The Possible Role of Sodium Leakage Channel Localization Factor-1 in the Pathophysiology and Severity of Autism Spectrum Disorders', *Scientific Reports*, vol. 13, no. 9747 (2023).
[1219] See Denise Voight, 'Leaky Gut and How it Affects Health and Autism Symptoms', *Autism Parenting Magazine*, 8 May 2025, accessed 23 January 2026. https://www.autismparentingmagazine.com/leaky-gut-autism-symptoms/.

intestinal lining – which allows the passage of nutrients to the bloodstream and to the brain through nerve cells – has been associated with the passage of harmful substances. Resulting in inflammation of the nerves and a disruption of digestive functions, this leaky gut phenomenon is, in turn, suggested as a cause for neurocognitive symptoms of autism.

This intestinal permeability, which is arguably caused by repeated ingestion of bacteria, food allergens or gluten, has also been associated with other conditions such as eczema and allergies, which are common co-occurrences of autism. These conditions are characterised by uncommonly permeable bodily barriers and a heightened sensitivity of the body to external chemicals. The medical condition called Multiple Chemical Sensitivity (MCS), for example, is described by Mel Y. Chen in *Animacies* as provoking autistic-like traits. Chen describes their experience of MCS, which, in their case, is due to mercurial toxicity, as a condition of toxicity that affects their 'health', 'queerness', and sociality: the seemingly banal experience of going outdoors becomes highly painful and risky due to the presence of chemicals in the air, like the ones found in perfume, tobacco smoke, or chlorine.[1220] Autism makes an unexpected appearance in the narrative:

> I cannot sustain many everyday toxins: once they enter, they recirculate rather than leave. I can sometimes become "autism-spectrum" in the sense that I cannot take too much stimulation, including touch, sound, or direct human engagement, including being unable to meet someone's gaze, needing repetitive, spastic movements to feel that my body is just barely in a tolerable state; and I can radically lose compassionate intuition, saying things that I feel are innocuous but are incredibly hurtful.[1221]

The increasing trend of 'toxic' narratives of autism is particularly instructive because the relative shift from research on genes to research on interstices and frontiers in the nervous system signals a socio-political shift in the biocultural construction of autism, which is increasingly framed as an inability to maintain normal connections and boundaries, for instance, between cells, but also perhaps at social and affective scales.

In these different examples, one finds the idea that the autistic body is atypically sensitive and permeable to the material world, or unable to maintain the boundaries between the inside and outside of its cells and organs. This broadly aligns with the descriptions of autism found in the Intense World Theory (Chapter 1). Whether at the level of the skin, the gut lining, the brain barrier, or the synapses, one observes forms of inward or external leaks of pathogens, neurotransmitters, molecules, and airborne chemicals. The autistic body, no longer framed as a hyperbounded body, is instead cast as a body whose lining, boundaries, and borders are unable

[1220] Chen, 'Following Mercurial Affects', p. 197.
[1221] *Ibid.*, p. 201.

to protect it from the intrusion of unwanted elements or the leak of useful internal ones. In turn, autistic neurobiologies are integrated into biopolitical regimes according to which, by becoming contaminated by parasitic neurotoxins, the autistic body might itself become a toxic parasite to society, as Chen reports:

> My invocation of autism in relation to "mercurial affect" here is not a closed one and is most certainly not a theory. It is a purposeful inclusion in a history that has yet to be told, and is hence, as I write today, to a certain degree experimental. The inclusion is part of my attempt to plumb the connections between toxic elements and toxic bodies; that is, bodies which are deemed "sick" are either seen as affected by toxic elements to the point of entering disability categories or are themselves considered a polluting scourge upon human normative securities.[1222]

To articulate a neurodivergent (or rather, neurodissident) theory of autistic neurobiology in this regard might involve celebrating the counternormative potential of autistic excess, leakiness, or toxicity, thus signalling the inassimilability of autistic bodies to the (healthy, neurotypical) social body. These perspectives, which take us away from this thesis's focus on animality, will not be explored in depth here; they could nonetheless be fruitfully developed in future research.

In the final subsection, I turn to recent approaches to neurology that explicitly engage the more-than-human. I draw from posthumanist and new materialist perspectives, including recent work on neuroplasticity, neuro-holography, and holotropism, to examine whether – and how – these approaches might enable novel ways of troubling neurology within neurodiversity studies. However, as we will see, while the (new) materialist nature of these frameworks proves instrumental to a posthumanist approach, they may potentially reveal reductionist limitations.

3. Posthumanist and New Materialist Approaches to Neurology

a) Neuroplasticity from Neoliberal Individualism to More-Than-Human Co-Regulation

While originating from a different intellectual context, Catherine Malabou's question, 'What should we do with our brain?', enacts a similar gesture to Wilson's.[1223] It seeks to deconstruct a binary in the study of neurology that is highly relevant to the issues raised by neurocentrism in neurodiversity studies and the neurodiversity movement. As posthumanist philosopher Audronė Žukauskaitė notes, there is an ongoing debate opposing 'the reductive "cognitivists"

[1222] *Ibid*., p. 212.
[1223] Catherine Malabou, *What Should We Do with Our Brain?* New York: Fordham University Press, 2008.

who “seek to elaborate a natural philosophy of mind by exposing the neuronal substrates of our mental activities”, and [...] the “Continentals”, for whom contemporary neuroscience is quite simply a crude determinist threat to freedom of thought and action’.[1224] Although this tension is rarely accounted for in neurodiversity studies, it is the same problem that Vidal and Ortega have described, one that is also found in many neurodiversity scholars’ engagement with neurology. While many of us are critical of neurology, we are nonetheless frequently tempted to use neurological discourse (or neurology itself) as a foundation for describing cognitive and subjective phenomena. Conscious that we cannot entirely eschew neurology, we often struggle to escape binary frameworks and to engage with neurology in genuinely novel ways.

Žukauskaitė observes that Malabou’s work offers a more nuanced understanding of neurology, which might be instructive here. While critical of the linear determinism that runs from the neural to the mental in neuroscience, Malabou urges philosophers to take neuroscientific discoveries seriously. Her focus on cases of brain damage and neurodegenerative diseases – situations that disrupt the ‘smooth functioning’ of the brain-mind nexus – forces us to recognise *both* the role of neurology in mental processes *and* its fundamental plasticity. If neuroscientists are correct that neurological states influence mental states, this influence is one of potentiality rather than deterministic causation. For Malabou, the transition between the neural and the mental can even be characterised by a rupture or mutual conflict, so that both states are transformed through their encounter. Consequently, mental activity cannot be straightforwardly predicted. Neuroplasticity, in this sense, is not an exception within neurology but a fundamental principle relevant across the lifespan.

As Malabou explains, ‘[i]t is precisely because [...] the brain is not already made that we must ask what we should do with it’.[1225] This recent emphasis on neuroplasticity challenges the traditional understanding of neurology as deterministic or essentialist. Neuroplasticity refers to the nervous system’s ability to transform throughout life, including after trauma or injury. Yet this ontological opening, emerging from the encounter between the neural and the mental, exists within a contested social field. In this field, various actors (scientists, healthcare providers, citizens, and others) struggle to assert the authoritative definition of neuroplasticity and to determine the principles governing its regulation.

In a forthcoming publication, co-authored by Riina Hannula, I engage with the science and politics of neuroplasticity to argue for a non-innocent understanding of neurology, one that recognises its likely inevitability for neurodivergent politics following the neurological turn,

[1224] Watkin, cited in Žukauskaitė, *Organism-Oriented Ontology*, p. 79.
[1225] Malabou, *What Should We Do with Our Brain?* p. 7.

while also drawing attention to its risks.[1226] To this end, the article examines the neoliberal politics surrounding neurodivergence today and show how the neuroplasticity discourse has aligned with neoliberal ideals and been channelled into brain-health practices targeted notably at neurodivergent people. Focusing on vagus nerve activation as a tool for brain-health management, Hannula highlights how neuroreductionism underpins polyvagal theory, the neurological framework that informs these practices. They show that, by adhering to neuronormative ideals of sociality, polyvagal theory positions neurodivergent people as responsible for regulating their nervous systems to align with neurotypical norms, rather than demanding that society accommodate them.

Furthermore, we demonstrate that polyvagal theory relies on an anthropocentric hierarchisation of nervous systems, according to which co-regulation is considered relevant only in human-to-human interactions. In contrast, we propose reconsidering the role of microorganisms in the everyday functioning of our nervous system and reframing co-regulation as a more-than-human process, one grounded in the broader relations that make our nervous systems so plastic in the first place. Nevertheless, the publication observes that the contemporary emphasis on neuroplasticity has not fully displaced traditional regimes of neurological discourse such as neuroreductionism; rather, these approaches often coexist or even hybridise. This is particularly evident within the neurodiversity movement, where neoliberal rhetoric promoting individual regulation coexists with deterministic, innate, and essentialist descriptions of neurodivergence. In this light, we advocate for a critical and non-innocent approach to neuroplasticity.

For instance, we propose to reclaim neuroplasticity from the individualist logic of neoliberalism by redefining co-regulation as a more-than-human phenomenon. Drawing on Hannula's work on the sociology of microbes, we highlight the various ways in which microorganisms operate within and around the different parts of our nervous systems, from the brain to the gut. By combining neuroplasticity with 4E cognition, posthumanism, and neuroqueer theory, the article suggests reframing co-regulation as a malleable and relational process stripped of the hierarchical, deficit-based, and neuronormative implications of polyvagal theory. It recognises that neurocognitive processes are embodied (within the whole organism), embedded (within the environment), extended (through tools and technologies we use), and enacted (through dynamic organism-environment interactions). At the same time, we resist the anthropocentric and neuronormative potentials of 'co-regulation'. To this end, we argue that multispecies relationality plays a central role in the enactment of neurological

[1226] Ombre Tarragnat and Riina Hannula, 'The Non-Innocent Politics of Neurology in Neurodiversity: Subverting the Neuro with a Posthumanist Approach, in *Biological Relationalism: The Relational Turn in Contemporary Science, Theory, and Politics*, ed. Aurore Franco-Ricord and Ombre Tarragnat, Cham: Springer, forthcoming.

phenomena and that no nervous system – mammalian, reptilian, or otherwise – is superior to another.

That said, the relational and posthumanist model that this work advocates should not be construed as the foundation of a new, innocent theory of neurology. The ideal of innocence, as I have shown in Chapter 4, is easily made into a myth of purity. If it is true that no scientific knowledge is ever fundamentally innocent, even when it is developed by marginalised communities, then the risk of self-pathologisation can never be fully avoided. This calls for continual re-examination of our relationship with the biomedical sciences. Neurology as a scientific field retains the capacity to pathologise and harm neurodivergent people, and using neurological discourse as a tool for self-description carries its own dangers. Yet as Ortega reminds us through Foucault, 'every "dispositive" of knowledge/power which functions as a mechanism of subjection, opens up a possibility for resistance'.[1227]

b) Neuro-Holographic Thinking and Holotropism: New Materialist Approaches to Neurodivergence?

Before concluding this chapter, I want to address a set of recent approaches developed by autistic communities at the margins of academia: neuro-holographic thinking and holotropism. The idea of neuro-holography was developed by Dawn Prince-Hughes (from the Cultural Autism Studies at Yale research group, or CASY), Helen Edgar (from Autistic Realms and More Realms[1228]), and Ryan Boren (from Stimpunks[1229]). Holotropism, developed by conceptual artist Hendl H. Mirra, is closely related to neuro-holography, though the two notions remain distinct.

In a blog post titled 'Neuro-Holographic Thoughts', Helen Edgar recounts the development of the term. She writes: 'When Dawn, Ryan and I discussed the term neuro-holographic, there was an instant shared resonance and affinity with the word, we were all on the same plane, the same plateau. We were all in tune with each other, sharing a rhythm and

[1227] Ortega, 'The Cerebral Subject', p. 442.
[1228] More Realms is an online space through which Helen Edgar explores more theoretical and speculative matters about neurodivergence. As the home page of the More Realms website shares: 'More Realms is a space for those who move through spiral time with tangled and textured bodyminds. It is a space where we can explore Deleuzian-inspired neuroqueer, post-humanist, neuro-holographic and ethodivergent ideas together.' See Helen Edgar, *More Realms*, n.d., accessed 9 January 2026. https://morerealms.com.
[1229] The Stimpunks Foundation is a nonprofit organisation built by and for neurodivergent and disabled people. On the Stimpunks website, the collective is described as 'a feisty group of disabled people' See Stimpunks, 'About Us: A Feisty Group of Disabled People', *Stimpunks*, n.d., accessed 9 January 2026. https://stimpunks.org/about/.

way of being.'[1230] It is unsurprising that the term emerged from this almost ineffable experience of connection, given that its meaning itself escapes traditional conceptualisation:

> Dawn, Ryan and I tried to define the word and experience of being **neuro-holographic, but we couldn't; we just shared excited nods** and stimmy responses of mutual agreement and joy at our connection. Perhaps the beauty lies in the way that the word neuro-holographic can only be felt or experienced in a luminescent, undefinable iridescent way, which creates a holographic energy of light and vibration that expands and ripples beyond our singular bodyminds to connect with other bodyminds, it creates multiplicity from the friction between us as humans.[1231]

Despite its reported irreducibility, the idea of the neuro-holographic captures a general way of being and perceiving, shared, among others, by autistic people. Derived from the Ancient Greek *holos* (or 'ὅλος', meaning 'whole') and *graphē* (or 'γραφή', meaning 'writing' or 'drawing'), holography refers to technology for generating three-dimensional images, with applications ranging from entertainment to science and the military. Beyond its metaphorical use, including in science fiction, holographic technologies produce holograms.

At first glance, neuro-holography does not appear to offer a new theory of neurology or a direct engagement with neurological data. Instead, it seems to reproduce the now-familiar practice of adding 'neuro-' to a noun as a marker of neurodivergent perspective. In this case, as in many others, it appears as if only neurodivergent people possessed nervous systems, or more worryingly, as if only their identities could be defined by (read, reduced to) their nervous systems. In this sense, neuro-holography would come to describe an autistic (or broadly, neurodivergent) tendency to perceive the world in a holographic manner due to autistic neurology.

In the CASY Facebook group in March 2025, Dawn Prince-Hughes wrote: 'So many autistic people are aware of, and affected by, the reality that there is no division between them and their environment — whether it is the person next to them, the dog running in the park, the plant in the windowsill, or the star at the edge of the universe'.[1232] Earlier, in February, she described '"neurohology" as a framework for a relational way of being, including an investment or entrainment with the environment, animals, or so-called inanimate objects'.[1233] The CASY website further clarifies the concept, emphasising the perceptive abilities of neuro-holographic people and their impact on the development of both autistic culture and, more broadly, general culture:

[1230] Helen Edgar (*MoreRealms*), 'Neuro-Holographic Thoughts', *Medium*, 23 June 2024, accessed 22 September 2025. https://medium.com/@helenrealms/neuro-holographic-thoughts-7544f6bcae70.
[1231] *Ibid*., bold in original.
[1232] Dawn Prince-Hughes, CASY Cultural Autism Studies at Yale, *Facebook*, 25 March 2025.
[1233] Dawn Prince-Hughes, CASY Cultural Autism Studies at Yale, *Facebook*, 20 February 2025.

> Despite common misconceptions, we are very much empathetically connected to the things around us. Because our sensing mechanisms are super sensitive and often synesthetic (cross-sensing — for example, tasting colors or seeing sound) we often feel a part of the things around us. We don't tend to see in hierarchies, but rather in 'holograms,' as described. Always looking for connecting patterns in an overwhelming ocean of sensory, emotional, and energetic information, our relational culture focuses on how things go together and function. Because of these innate talents, insights, and a tendency toward invention, out of the box thinking, and an enthusiasm for combining patterns, autistic/Neuro-Holographic people have been responsible for many important developments in the larger cultures in which they find themselves.[1234]

Behind the situated, almost phenomenological description of neuro-holographic perception as a perception of holograms, lies an ontological commitment to quantum thinking, beginning with quantum physics: '"Neuro-Holographic" is an emergent idea that our group has embraced. Neuro-Holographic, as a concept here, refers to the idea that every small bit of energy and information, whether an atom or the universe, reflects every other part of itself in a seamless and meaningful way.'[1235] This connection to quantum physics is further attested by a quote from Brian M. Sabourin shared by Prince-Hughes alongside her definition of neuroholography on the CASY Facebook group: 'According to quantum physics a particle vibrating due to your sound when you speak can affect a molecule inside a star at the edge of the Universe instantly. This phenomenon is known as quantum entanglement. The greatest illusion of this Universe is the illusion of separation'.[1236]

In this sense, the idea of the neuro-holographic strongly resonates with a strand of contemporary posthumanist and new materialist thought associated with the quantum turn, ranging from Deleuzo-Guattarian concepts such as rhizomes, plateaus, planes of immanence, and Bodies without Organs, to Karen River Barad's theory of agential realism, which is rooted in quantum physics. How, then, does neuro-holography resist reductionist and traditional understandings of neurology? According to Helen Edgar, the neuro-holographic highlights the neuroqueer potentiality of liminal spaces and of dwelling *in between*.[1237] In her writing, she was the one to introduce the hyphenated spelling 'neuro-holography', reflecting this very potential:

> I have intentionally used a hyphen between the words neuro and holographic to represent the in-between of neurology and holographic ways of being and experiencing the world, a pause for tuning in, an embodiment, a space of Ma. I have resisted using the word "neuro-holograph**ism** as that could imply another new theory or concept. Neuro-holographic is not a concept; rather, I feel

[1234] CASY, 'Home'.
[1235] *Ibid*.
[1236] Sabourin, cited in Dawn Prince-Hughes, CASY Cultural Autism Studies at Yale, *Facebook*, 25 March 2025.
[1237] Helen Edgar (*MoreRealms*), 'Neuroqueering from the Inbetween', *Medium*, 11 April 2024, accessed 22 September 2025. https://medium.com/@helenrealms/neuroqueering-from-the-inbetween-4ec0c12fd0e5.

like it **IS** the **plane of immanence** on which neuroqueer theory breathes and lives […] To resonate with the term neuro-holographic is to resonate as souls, with your core self, perhaps with your spirit.'[1238]

While bearing the mark of the neuro, Edgar's thinking about the neuro-holographic distances itself from traditional neurological thinking and ventures into a more spiritual or cosmological realm, grounded in quantum physics. It merges holistic thinking with a potentially futuristic technoscientific imaginary filled with holograms, particles, waves, and diffraction patterns. This is especially evident in the visual imagery that illustrates the CASY website's homepage, which features fluorescent green-blue humanoid figures surrounded by geometric patterns of nodes and lines, evoking both digital and cosmic constructions. This cybernetic, sci-fi aesthetic resonates with posthumanist and new materialist theories of cyborgs, such as the one popularised by Donna Haraway's 1985 manifesto. However, unlike Haraway, neuro-holography presents a holistic, if not cosmic, conception of interconnection. Whereas Haraway emphasises that 'Nobody lives everywhere; everybody lives somewhere. Nothing is connected to everything; everything is connected to something',[1239] neuro-holography employs quantum physics to articulate a broader sense of being connected to the whole of the universe.

In this regard, the concept of the neuro-holographic might lean more towards a transhumanist orientation, if not in the explicit conceptualisations of Prince-Hughes, Boren, and Edgar, at least in the undertones it carries. Indeed, the concept channels imaginaries of autistic telepathy and paranormal communication. These imaginaries might not be rooted in exoticising or fetishistic affects for its coiners, but these logics remain available to be picked up by less sympathetic agents. This is the case, for example, in the Epstein files published in late 2025 to early 2026, where multiple email conversations feature discussions of scientific experimentations on autistic telepathy and clairvoyance. Without giving in to the conspiracy theory, it is worth noting that the realm of the occult has become a source of fascination for a techno-fascist billionaire class that has possibly been engaging in various endeavours to explore the potentials of technological human enhancement. Unsurprisingly, these enterprises all seem to engage in neurological discourse, whether through discussions of vagal functions or via direct mentions of Henry and Kamila Markram's Intense World Theory. This is particularly understandable given the androcentric, Aspie supremacist, neoliberal ethos I described in Chapter 1 in relation to this theory.

While it is not my claim that neuro-holography directly partakes in these troubling fantasies of technofascist transhumanism, it is clear that the concept belongs to a broader

[1238] Edgar, 'Neuro-Holographic Thoughts', bold in original.
[1239] Haraway, *Staying with the Trouble*, p. 31.

constellation of tropes and theories that might bring autistic people back to figures of aliens and robots than of humanimals. As Fiona Kumari Campbell summarises in a discussion of technologies of human enhancement, '[p]ossibilities of post-humanism developed within the context of technologies of ableism may provide a "new deal" for some—but on closer examination the tentacles of ableism reassert itself [*sic*] through a dominant trend in the literature and research to propose a virile style of transhumanism that despises vulnerability'.[1240] How the concept of neuro-holography can be taken in the direction of a posthumanist a(û)nimality rather than of a transhumanist autistic alien or cyborg, remains to be seen.[1241]

Beyond its cosmic approach, it is noteworthy that neuro-holography employs a highly cybernetic imaginary to support an almost spiritual perspective. Remarkably, this strategy prevents a traditional neuroreductionist conception of neurodivergence. Its connections with the materiality of neurological data, however, remain less clear. Unlike the ethodivergent approach I introduce in Chapter 6, neuro-holography constitutes a new kind of figuration that retains the ties with the 'neuro'. This is unsurprising: only an approach that is centred on a critique of neurological discourse can effectively dispense with the neurological signifier, at least without risking the loss of all visible connection to neurodiversity.

To further situate neuro-holography in relation to embodied experience, it is useful to turn to Hendl H. Mirra's concept of holotropism, which has inspired Edgar in her neuro-holographic reflections.[1242] In a blog post entitled 'Holotropism: A Multi-Dimensional, Spacious, Edgeless Terrain', Mirra 'synthesis[es] monotropic theory with deep ecology and holistic anatomy'.[1243] She explains that

> To be holotropic is to have wide open sensory gates. To participate in/as the immense world without becoming overwhelmed, we holotropes have two central methods: *in*, by hyperfocusing our attention on one sensory or cognitive path, and *as*, through synthesising our experience into coherence. A sense of wholeness occurs through both of these processes — less consciously in hyperfocus, more consciously in coherence.[1244]

With the idea of participation *in/as* the world, Mirra complements monotropic and syntropic focus (namely, hyperfocus as a form of participation in the world) with synthesising and rest

[1240] Fiona Kumari Campbell, *Contours of Ableism: The Production of Disability and Abledness*, Basingstoke: Palgrave Macmillan, 2009, p. 75.
[1241] On these topics, see Stuart Murray, 'Autism and the Posthuman', in *Worlds of Autism: Across the Spectrum of Neurological Difference*, ed. Joyce Davidson and Michael Orsini, pp. 53–72, Minneapolis and London: University of Minnesota Press, 2013.
[1242] See, for instance, Helen Edgar (*MoreRealms*), 'Monotropism, Holotropism & Floatation Experiences', *Medium*, 25 May 2024, accessed 22 September 2025. https://medium.com/@helenrealms/monotropism-holotropism-floatation-experiences-e8c4d0c27b0f.
[1243] Hendl H. Mirra, 'Holotropism: A Multi-Dimensional, Spacious, Edgeless Terrain', *Medium*, 4 July 2023, accessed 22 September 2025. https://hmirra.medium.com/holotropism-1cdf99c00b74.
[1244] *Ibid*.

(coherence as integration into the world).[1245] While the theory of monotropism posits that the essential nature of monotropic beings, so to speak, lies in deep states of flow, Mirra's theory of holotropism argues, on the contrary, that 'the root of our being' is found in the tranquil awareness of being part of the whole of the world.[1246] In other words, one theory suggests that beings will feel discomfort unless profoundly absorbed in a task or interest (i.e. concentrating); the other contends that well-being is achieved through holistic rest (i.e. through 'de-centrating'). Mirra therefore explains that '[m]onotropism is a marvelous local temporary salve-technique-process that the holotropic person takes advantage of'.[1247] She also points to its potential harms:

> Hyperfocus may also partially explain why autists have a higher incidence of various physical ailments — if there is a prioritised focus of interest for the body's energy, aspects of our "autonomic" nervous system aren't always autonomic. If we are only cycling between hyperfocus and disruption of hyperfocus, our bodies as whole systems are neglected. Regular periods of coherence are therefore mandatory for our well-being.[1248]

In doing so, Mirra connects her ideas to concrete neurological phenomena: if an autistic body expends all of its energy on hyperfocus, can it still adequately perform supposedly autonomic functions, such as breathing or digesting? This hypothesis might explain the prevalence of dysautonomia, a condition characterised by a dysfunction of the autonomic nervous system, and which is increasingly found in autistic and ADHD communities. Even without going so far, it is not difficult to understand how spending all of one's time and attentional resources on high-energy activities might not leave enough resources for the body to function and recover properly. Thus, holotropism engages with neurology not in identitarian or deterministic terms, but in a more holistic manner. Aimed at explaining phenomena such as 'synaesthesia, mirror-touch, dyspraxia, and hypermobility [which are common] among us autistic people',[1249] it does not limit itself to any single neurodivergence: 'While autistic people are not the only ones capable of absorption, it is the signature of a holotropic life.'[1250] In an explicit critique of neuroreductionism – more literal, at least, than in the neuro-holographic approach – Mirra goes so far as to critique the neurodiversity concept, which she sees complicit in such reductionism:

> Neurology can be a trap that reifies a misleading narrative that our brains determine "who we are", and this is reified by the compound word "neurodiversity". It neglects the heart. It doesn't

[1245] Syntropism refers to a 'connective […] attention pat[h]', represented by the rhizome. *Ibid.*
[1246] *Ibid.*
[1247] *Ibid.*
[1248] *Ibid.*
[1249] *Ibid.*
[1250] *Ibid.*

> recognize that the mind is not separable from the body. We prefer the term *neurosomatic diversity*. Our brains have evolved to support our lives, which can only be fulfilling in *feeling*.[1251]

I can only agree with Mirra's objections to neuroreductionism in neurodiversity and welcome her more-than-neurological proposal of a 'neurosomatic diversity' and her efforts in reconceptualising neurological data. However, in the current context marked by the widespread trendiness of neurological discourse, I worry that the 'neuro' component will take precedence over the 'somatic' part in the phrase 'neurosomatic'. With the concept of ethodiversity in Chapter 6, I propose the more radical gesture to replace the neurological with the somatic altogether.

Where I may partly diverge from the holotropic conception, however, is in the claim that 'the true gift' of autistic people lies in embodied coherence and its associated 'profound rest'.[1252] Drawing on Kurt Goldstein's philosophical biology (Chapter 2) and, even more so, Roberto Marchesini's philosophical ethology (Chapter 6), my own experience of neurodivergence suggests that a fundamental dimension of autism – and more broadly, animality – resides in a *desire* for absorption. Nonetheless, as the neurodiversity paradigm teaches us, there exists a wide range of ways of being in the world, which vary not only within species but also within neurotypes. While my (and many others') experience of autism centres on the exhausting desire (and need) for monotropism, it is unsurprising that others – particularly those experiencing traits such as synaesthesia – might find the peaceful awareness of being part of a whole more central to their experience. Further research, including sociological and scientific evidence, might be useful to clarify these differences or rather bridge the gap.

A related point of contention between my perspective and the holotropic view lies in the latter's aspiration toward a holistic, universalising perspective on life: '"If a psychological theory is not true ecologically, it is not true. That is, if it does not apply equally well to plants and chipmunks and bacteria, it isn't foundationally true." Everyone and everything connects.'[1253] Following Mirra, it might be possible to bring the ontology of animality – defined by Florence Burgat through freedom and restlessness – to which we belong, back to the ontologies of plants and bacteria, which Mirra defines through profound rest and absorption in one's material environment. It is as if the ontology of the vegetal of the microbial came to reflect (if not replace) the ontology of (hum)animality here. I worry that such an approach may, under the premise of holism and maximum relational interconnection, lead us once more to the reduction of animality to the physicochemical. Would not such an approach necessarily flatten ontology, thereby making it harder to recognise the diversity in neurodiversity?

[1251] *Ibid.*
[1252] *Ibid.*
[1253] *Ibid.*

Another challenge raised by this logic is the incongruence between the dual emphasis on the neurological and the somatic, two planes of reality which can arguably be denied to plants and bacteria. While it is likely that nervous systems are only a potential trace or condition of possibility of sentience rather than its definite cause or location, they remain nonetheless unique to animals.[1254] The same might be said of somaticity which, if we understand it as the realm of behaviour, as I do, does not exclude the physicochemical movements of plants or bacteria. In this way, neurocentrism can ultimately be understood as a zoocentrism,[1255] even if it has often played along anthropocentric lines. In this regard, it is unclear how much the neurosomatic perspective can truly transcend the ontological boundaries that separate various forms of life.

From my perspective, a truly biodiverse conception should remain cautious of universality and flat ontology if it is to embrace the diversity of life forms. This applies to neurodiversity directly. I do not think that a unified and homogeneous psychology (or neurology, or even ontology) of things is needed because plants, chipmunks, and bacteria do not live the same lives – if it is simply possible to say that all these beings '*live* their lives'. While they are certainly interconnected, and some general predicates of life might apply to them all, celebrating the *diversity* in neurodiversity requires rejecting the myth of wholeness as uniformity. In this regard, my own approach is explicitly zoocentric – centred on animality – rather than biocentric or cosmologically holistic. I suggest it matters to preserve these differences, even if this means that we must grapple with the challenge of categorisation.

To finish off this section, it is worth noting again that, despite a growing awareness of the limitations of neurocentrism, most neurodiversity theorising – including my own – has not fully transcended them. Neuro-holography retains the neurological signifier but does so through a cybernetic imaginary coupled with quantum-holistic thinking. Further conceptual work would be needed to ground the neuro component in a more (neo)materialist understanding of neurology and escape the potential limitations of idealist or spiritualist views. This perspective should also clarify its relation to transhumanism and its androcentric, technofascist undertones. Holotropism, by contrast, eschews neuroreductionism and anthropocentrism by replacing or complementing the neurological signifier with somatic and cognitive, if not broadly biological, planes. However, it continues to engage with neurological phenomena while expanding towards non-sentient forms of life, which raises onto-epistemological problems and interrogates the relevance of its holistic extension to all living beings.

[1254] See Peter Godfrey-Smith, *Metazoa: Animal Minds and the Birth of Consciousness*, London: William Collins, 2020, pp. 55–7.
[1255] *Ibid*., p. 260: 'This view of things is tied to nervous systems (it is "neurocentric," in a sense), and hence skeptical about the existence of non-animal minds.'

This chapter examined the role that neurology plays within neurodiversity in order to demonstrate the risks of treating the life sciences as providers of foundational and innocent truths. This critique stemmed from the observation that, in Western societies marked by deep humanist and speciesist traditions, the life sciences have historically relied on a range of scientific paradigms that have mechanised and bestialised nonhuman animals and (neuro)divergent humans alike. In this context, contemporary neurological discourse appears as the latest iteration of a history of reductionist thought that is rife with epistemic and political consequences, such as determinism, essentialism, identitarianism and that ultimately leads to further dehumanisation and pathologisation.

While this chapter acknowledged the urgency of rethinking and reconfiguring neurodiversity studies' engagement with the neurological turn, and therefore engage in a more-than-neurological turn, it suggested that neuroreductionism cannot be overcome without reconsidering the very centrality of neurology itself. Here is the second meaning at work in the proposal of a more-than-neurological turn. In this regard, my perspective remains most aligned with the phenomenological perspective delineated by Florence Burgat, in which the central nervous system is no longer so central to the phenomenon of animality: as Burgat rightly notes, '[i]f neural centralisation constitutes an indication of the "self", it is free movement within the environment which, more than an indication, constitutes its distinguishing sign'.[1256] What Burgat points out here is that the central nervous system, far from being a distinguishing or universal sign of animality (for there exist animals without it), is merely a potential indication of it. We could therefore follow Burgat in citing Bergson, for whom

> it would be as absurd to refuse consciousness to an animal because it has no brain as to declare it incapable of nourishing itself because it has no stomach. The truth is that the nervous system arises, like the other systems, from a division of labour. It does not create the function, it only brings it to a higher degree of intensity and precision.[1257]

In other words, Burgat's phenomenological perspective invites us to move beyond the analytical empiricism that takes given empirical features, such as the nervous system, as the cause and locus of biological predicates like consciousness or sensibility. From a phenomenological perspective, it is rather the presence of spontaneous movement that indicates animal life. Such a trait is only perceivable through the structure of behaviour taken as a whole

[1256] Burgat, *Qu'est-ce qu'une plante*, p. 108, my translation.
[1257] Henri Bergson, *Creative Evolution*, London: MacMillan and Co., 1922, p. 116.

and understood as the form through which an animal materialises their intentional relationship with their Umwelt. Given that such a structure is only found in animals, it may not be necessary to use the nervous system as an instrument to distinguish sentient animality from non-sentient forms of life; the distinction is anchored on other grounds. This potentially interrogates the relevance of new materialist conceptions, whose unique emphasis on empirical data might prevent them from producing anything other than flat ontologies.

Because neurology might not be so necessary to think animality, all the while raising a range of onto-epistemological and political challenges, I have chosen to amplify the de-centring gesture in the remainder of this thesis. Through what I have called a more-than-neurological turn in neurodiversity studies, I have acknowledged that neurological discourse might not be going anywhere. However, in order to talk about neurology *better*, I believe it might be necessary to talk about it *less* (and less innocently). To this end, we must become more cognizant of the means and (dead) ends of neurocentrism: to truly capture the diversity in neurodiversity, new modes of description and figuration of embodied difference are needed: neurological, certainly, but also affective, somatic, etc. Decentring neurology may require moving beyond the 'neuro-' prefix and beyond neurology itself as a biological science. This is where the prefix 'etho-', derived from ethology, comes into play.

CHAPTER 6 – ETHOLOGIES OF AUTISM: AN ANTISPECIESIST-POSTHUMANIST FRAMEWORK FOR NEURODIVERSITY

INTRODUCTION

Neurological discourse is only one of the modalities through which autism and animality have been brought together historically. Indeed, while the neurological turn has largely diverted the agenda of scientific research on autism away from psychoanalysis and behaviourism, the latter approaches have persisted in different sites and continue to target neurodivergent humans and nonhuman animals. This chapter offers an examination of what I propose to call the *ethologies of autism*, a notion that suggests that behaviour and somaticity have been and remain defining dimensions of autism in social, scientific, and theoretical contexts.

Throughout this chapter, I offer an overview of the different sites where technologies of speciation and apparatuses of bestialisation have targeted autistic and animal behaviour. Ethology – the scientific study of animal behaviour, whether human or nonhuman – constitutes one such site. In order to resist the hegemonic tendencies of behaviourism, I suggest we reclaim and subvert the meanings of behaviour and ethology. I first engage with the scientific history of behavioural conceptions of autism before offering a new, more-than-human and more-than-neurological framework for neurodiversity: ethological diversity.

I — AUTISM AND ANIMALITY IN THE BEHAVIOURAL SCIENCES

> If a man's behaviour is not similar to ours, we will judge him, depending on the circumstances, as a stranger, a madman, a weak-minded person, or in any case as a being who is deprived to some extent of our humanity.[1258]

The category of behaviour haunts contemporary discourse on autism and animality. Despite the neurological turn, behaviour has been and remains a core dimension of both conditions, and of neurodivergence and Madness more broadly. Behaviour is one of the primary forms through which one's biopsychosocial constitution and individual idiosyncrasies are perceived and

[1258] Buytendijk, *L'Homme et l'Animal*, p. 114.

evaluated; it comes directly after one's physical appearance. Behaviour, therefore, remains a privileged site of inquiry for examining the development of technologies of speciation and apparatuses of bestialisation to this day.

As I will show in this section, animal sciences in the twentieth century have largely mobilised behavioural studies, and nonhuman animals have historically served as the primary targets and objects of the behaviourist approach. Similarly, autism was from the start a behavioural category:

> Kanner initially referred to 'an autistic disorder of affective contact' before talking about early childhood autism. […] Let us not forget the impact of the American philosophical position: pragmatic in nature, it observes behaviour and aims at adaptation to a social norm. Thus, a few decades later, drawing on behaviourism, the Palo Alto school was able to develop its theories of paradoxical communication and propose *ad hoc* treatments […]. Kanner, in this respect, does not speak of a suffering subject, but of behaviour that deviates from the norm.[1259]

This historical centrality of behaviour in Kanner's writings of autism makes the behavioural sciences a crucial site for my study. In this section, I explore some lesser-known behavioural spaces where autism and animality meet.

First, I turn to behaviourist approaches to autism and animality. While the development of the behaviourist tradition – which has targeted both nonhuman animals and autistic humans – has been examined before in academic scholarship, this is less true of the animal models developed by autism science. I will demonstrate that these experimental practices perform a naturalisation of psychiatric conceptions of autism alongside a bestialisation of animality. I will suggest that their increasing complexity in recent decades has not allowed them to overcome these limitations, but instead pushed them to mobilise a humanitarian perspective to morally justify the exploitation of animals and the medicalisation of autism.

Then, I turn to ethology to highlight practices of hegemonic speciation. To this end, I examine the historical application of ethological principles to humans, using Niko and Elisabeth Tinbergen's ethological theory of autism as a case study. I demonstrate that, by portraying autism as a civilisation disease, the Tinbergens have turned ethology into an applied science tasked with recovering the ancestral animality of (autistic) humans. This pathologisation relies on a disanimal understanding where autism becomes the trace of deviations from human nature in modernity.

I conclude the section with a discussion of neurodivergence in nonhuman animals through examining contemporary discourses developed within the neurodiversity movement and animal

[1259] Laetitia Putigny-Ravet and Éva-Marie Golder, 'Brève histoire d'un terme surfait', *Journal français de psychiatrie*, vol. 44, no. 2 (2016), p. 42, my translation.

psychiatry. I show that, while animal metaphors for autism abound in the neurodiversity movement, they rarely take the form of a serious engagement with the possibility of nonhuman autism. On the contrary, while animal psychiatry has begun considering this potentiality, its nosographic classifications exemplify a discomfort with human-animal comparisons and a persistence of pathologising perspectives. This demonstrates the urgency of the more-than-human turn in neurodiversity studies.

1. The Co-Construction of Autism and Animality in Behaviourism: Animal Models as Apparatuses of Bestialisation

Behaviour has constituted a core dimension of autism throughout its history. While autism is often described as a neurotype today, its behavioural component has been directly targeted by hegemonic approaches in the sciences. This is historically true of behaviourism, a scientific approach first developed by John Watson. Watson believed that the psychology of his time, which had been marked by the method of introspection since its development by Wilhelm Wundt, was on the wrong track. To strengthen his discipline and its scientificity, Watson suggested that psychology should rely only on externally observable data rather than internal representations and affects. In such an approach, behaviour became psychology's primary object of study.[1260]

Historically, behaviourism was developed using nonhuman animals. Watson drew inspiration from Pavlov's experiments on dogs, which led to the concepts of classical conditioning and operant conditioning. Classical conditioning refers to the association of neutral stimuli (such as random sounds) with biologically meaningful stimuli (such as food, a potential rival, etc.). Classical conditioning shows that repeating these correlated stimuli creates a psychological association in which the neutral stimulus comes to trigger the same response as the meaningful stimulus. In this way, Pavlov conditioned dogs to salivate not only at the sight of food – a common behaviour among dogs – but also at the sound of a metronome. The metronome had become sufficient to cause salivation in those dogs. As for operant conditioning, it rests on reinforcement and punishment, namely on offering or removing rewards or aversive stimuli following given behaviours. The method of operant conditioning is still used in canine education, in which dogs are rewarded with treats only when they perform behaviours that are expected of them.

[1260] See John Watson, *Behaviorism*, New York: People's Institute, 1924.

According to behaviourists like Pavlov or Watson, mental and subjective experience need not be assumed in order to understand such reactions. For them, it would be unscientific to claim that the dogs had come to anticipate food when hearing the metronome, because this subjective phenomenon could not be directly observed. This thesis was particularly compelling at a time when the neurosciences had not yet acquired the explanatory potency they are known for today. As such, Pavlov and Watson would go so far as to deny the subjective nature of the dogs' behaviour. Instead, in their eyes, conditioning revealed almost mechanistic reactions where given stimuli systematically result in predictable behaviours.

This rejection of mental states as objects of psychiatry made behaviourism a strong candidate to replace Cartesianism and its widely critiqued idealism.[1261] This opposition remains pervasive in contemporary science, where (neuro)cognitive approaches largely inherit the Cartesian tradition, whereas behaviourist approaches inform parts of clinical psychopathology and psychiatry. Contrary to perspectives rooted in neuroessentialist discourse, behaviourism also had the benefit of recognising the impact of environmental factors on individual behaviour, thus escaping a form of innatism and determinism.[1262]

These advantages gave behaviourism a growing influence in Western societies, where the promise of 'mould[ing] individuals in line with the needs of the society and economy' proved highly attractive to capitalists.[1263] In the 1930s, American psychologist Burrhus Frederic Skinner envisioned a large-scale form of behavioural engineering that could turn ill, disabled, Mad, and neurodivergent people into desirable and productive citizens.[1264] In the 1940s, industrialists like Henry Ford II also saw in behaviourism an opportunity to further mechanise production lines and increase workers' productivity.[1265] It is not coincidental that the same industrialists who applied behaviourism to production lines were also influenced by industrial factory farming.[1266] This sector similarly would also inspire the horrific practices of the National Socialists in Germany during the Second World War.[1267]

Skinner's ideas have therefore influenced generations of animal scientists, who have found in his work directly operational concepts and methods. For example, in her

[1261] When applied to animals, however, behaviourism has proved just as mechanistic and reductionist as the Cartesian thesis of the animal-machine.
[1262] On the contrary, ethologists accuse behaviourists of neglecting innate characteristics and social learning. See, for example, Marchesini, *Over the Human*, p. 151.
[1263] Chapman, *Empire of Normality*, p. 91.
[1264] Burrhus Frederic Skinner, *The Behavior of Organisms: An Experimental Analysis*, New York: Appleton-Century-Crofts, 1938.
[1265] Chapman, *Empire of Normality*, pp. 89–95.
[1266] See for instance Vasile Stanescu, 'How Industrial Slaughter Became the Blueprint for Modern Capitalism', *Current Affairs*, 6 October 2025, accessed 17 November 2025. https://www.currentaffairs.org/news/how-industrial-slaughter-became-the-blueprint-for-modern-capitalism.
[1267] See for instance Charles Patterson, *Eternal Treblinka: Our Treatment of Animals and the Holocaust*, New York: Lantern Books, 2002.

aforementioned critique (see Chapter 4), Vittoria Lion notes that 'behaviorist ideas, which originate in B. F. Skinner's experiments on animals, form the basis of Grandin's work with farmed animals'.[1268] More broadly, behaviourism has been an essential tool for training animals and designing zoo facilities.[1269]

a) Applied Behaviour Analysis and Bestialisation

Similarly, behaviourism has been directly applied to autism. In the 1960s, at the University of California, Norwegian psychologist Ivar Løvaas developed the method of Applied Behaviour Analysis (from now on ABA), which sought to normalise autistic children by conditioning their behaviours through rewards and, more commonly, harsh punishments, such as electric shocks and physical slaps. ABA is an interventionist practice that targets mostly young children, commonly two to six years old, often requiring intensive sessions up to forty hours a week. ABA has since been largely decried by autistic communities, who see in this practice nothing short of an act of torture that has caused long-term trauma to many.[1270] Autistic people have described this directly. This is the case of Ido Kedar in his autobiographical text:

> Each day the experts denied me hand-flapping but I had no other outlet for my feelings. [...] In the ABA years I lost hope. [...] I longed so badly to be able to make my ideas known. I got flashcards instead. 'Touch your nose.' 'Touch tree.' 'Touch your head.' 'Do this.' 'Sit quiet.' 'Touch red.' 'Good job.' 'Hands quiet.' 'No.' 'Great.' 'No.' 'Great' 'No.' 'All right!' 'No'.[1271]

It is also not incidental that Løvaas simultaneously developed conversion therapies to normalise 'feminine' boys, who were thus suspected of having 'homosexual' orientations.[1272] This highlights the entanglement of neuronormativity and cisheteronormativity.[1273] In this way, ABA can be accurately described as conversion therapy for neurodivergence.[1274] In *Authoring*

[1268] Lion, 'Disrupting Temple Grandin', p. 188.
[1269] Eduardo J. Fernandez and Allison L. Martin, 'Animal Training, Environmental Enrichment, and Animal Welfare: A History of Behavior Analysis in Zoos', *Journal of Zoological and Botanical Gardens*, vol. 2, no. 4 (2021),
pp. 531–43.
[1270] See, for example, Michelle Dawson, 'The Misbehaviour of Behaviourists: Ethical Challenges to the Autism-ABA Industry', *Sentex*, January 18, 2004, accessed 17 November 2025.
https://www.sentex.ca/~nexus23/naa_aba.html; Devon Price, *Unmasking Autism: Discovering the New Faces of Neurodiversity*, New York: Harmony Books, 2022, pp. 99–102.
[1271] Kedar, *Ido in Autismland*, p. 58.
[1272] See George Rekers and Ivar Løvaas, 'Behavioral Treatment of Deviant Sex-Role Behaviors in a Male Child', *Journal of Applied Behavior Analysis*, vol. 7, no. 2 (1974), pp. 173–90.
[1273] Yergeau, *Authoring Autism*; Pyne, 'Autistic Disruptions, Trans Temporalities'; Margaret F. Gibson and Patty Douglas, 'Disturbing Behaviors: Ole Ivar Løvaas and the Queer History of Autism Science', *Catalyst: Feminism, Theory, Technoscience*, vol. 4, no. 2 (2018), pp. 1–28.
[1274] See, for example, Chapman, *Empire of Normality*, p. 94. Jake Pyne also speaks of 'autistic conversion therapy' in Pyne, 'Autistic Disruptions', p. 355.

Autism, then, M. Remi Yergeau reports on the various behavioural traits that ABA meticulously monitors: '*feminine gesture mannerisms*, *play acting of a feminine role*, *feminine play with sister*, *masculine play*, and *masculine play with brother*'.[1275] This surveillance is enacted not only during 'therapy' sessions, but also at home, with the participation of parents and, ultimately, through the internalised self-surveillance of neuroqueer subjects.

Beyond gender and sexuality matters, ABA and behaviourism have historically been mobilised as tools of colonial assimilation and cultural erasure on Native American children.[1276] Indeed, ABA functioned along the same lines as boarding schools for native children, which imposed assimilation into colonial US-American culture. Today, Native autistic children are more likely to be taken to foster care than given culturally appropriate care. In 2021, the Indian Health Service – a federal agency that provides health services to Indigenous peoples in the United States of America – announced it would start funding ABA, rather than developing more culturally sensitive care. Besides, the use of electric shocks today seems mostly reserved for Black and Indigenous children, as Anishinaabe autistic autism advocate Jules Edwards has noted.[1277] She adds that ABA makes Indigenous autistic girls 'more vulnerable to abuse than they would be without compliance training'.[1278] ABA practice has been found to reproduce forms of systemic and individual racism in the treatment of Black and Indigenous autistic children.[1279] At the same time, those children are later diagnosed and underdiagnosed compared to white autistic children in the United States.[1280]

Yergeau maintains that queer meanings keep attending to the gestures performed by neuroqueer subjects, which ABA is ultimately unable to erase due to its lack of concern for the psychological or 'biocultural conditions' that give such behaviours their meaning.[1281] Rather, ABA operates through *overwriting* neuroqueer behaviours, attributing them a quality of individual moral failure and asociality. A similar argument could be made about the biocultural significance of autistic behaviours in racialised and Indigenous children. Therefore, Yergeau explains that in ABA, the 'will and intention [of neuroqueer subjects] cease to matter'[1282]

[1275] Yergeau, *Authoring Autism*, p. 128, emphasis in original.
[1276] See, for example, Jules Edwards, 'Applied Behavior Analysis is Abusive to Native Children', *ICT News*, 18 April 2021, accessed 17 November 2025. https://ictnews.org/opinion/applied-behavior-analysis-is-abusive-to-native-children/.
[1277] *Ibid*.
[1278] *Ibid*.
[1279] See, for example, Marija Čolić et al., 'Black Caregivers' Perspectives on Racism in ASD Services: Toward Culturally Responsive ABA Practice', *Behavior Analysis in Practice*, vol. 15, no. 4 (2021), pp. 1032–41.
[1280] See, for example, Amanda Bennett et al., 'Increasing Diagnostic Services for Autism Spectrum Disorder in the Native American Community: A Pilot Collaborative Telecare Model', *Pediatrics*, vol. 147, no. 3 (2021), pp. 970–1; Hannah Furfaro, 'Race, Class Contribute to Disparities in Autism Diagnoses', *The Transmitter*, 20 November 2017, accessed 12 January 2026. https://www.thetransmitter.org/spectrum/race-class-contribute-disparities-autism-diagnoses/.
[1281] Yergeau, *Authoring Autism*, p. 128.
[1282] *Ibid*., p. 125.

because ‘the [only] wills that matter are those of the analyst’.[1283] The main goal of ABA, Yergeau concludes, is not to develop new ways of understanding neuroqueer (and we might add, Indigenous) children and their behaviour – or simply to attend to their inherent meaning and rhetoricity – but for these children ‘to comply with a behavioral and prosocial demand’.[1284]

While behaviourism was historically only concerned with behaviour, Yergeau notes that contemporary ABA relies on a new ‘rhetorical truism’, namely neuroplasticity, ‘wherein ABA changes the brain’.[1285] It is noteworthy that, in our age of hegemonic neuroscience, various regimes of pathologisation come together and reconfigure one another. For this reason, Yergeau complicates the historical claim that behaviourism escaped Cartesianism, whereas neurocognitive science reproduced it. Indeed, they explain that ‘[e]ach takes on the opposing pole of a Cartesian duality, seeking to explain brain through behavior or behavior through brain – but both approaches hold the shared belief that behaviors change brains as much as brains change behaviors’.[1286] In this way, while it is rooted in environmentalism, ABA-style behaviourism has been no less reductionist than its neurocognitive counterpart.[1287] This should caution against the oversimplified conclusion that all environmentalist approaches align with the social model of disability.

This example recapitulates the observations made in Chapter 5, where neuroplasticity was shown to be increasingly mobilised by neoliberal politics of individual responsibility. As it appears once more, the neurological never exhausts or suffices itself: behaviour remains the principal pathway to the brain through the practice of neuromodulation. In behaviourist approaches, however, Yergeau notes that

> ABA does not claim to transform the autistic brain into a nonautistic brain, much like ABA doesn’t claim to rewire queer brains into cissexual or heterosexual brains. Rather, the ABA mandate is to create neural pathways that result in normative-seeming behavioral profiles: we are not in-wiring straightness or allism, but are rather in-wiring a masquerade of straightness and allism. Passing has become a kind of cognitive-behavioral therapy, the ultimate goal in developmental treatment plans.[1288]

In other words, while the so-called autistic neurology (or queer neurology) is presumed to persist – for it is hard-wired in the brain – it may instead be overwritten by opening the door to alternative behaviours geared towards passing as neurotypical and cisheterosexual. And

[1283] *Ibid*.
[1284] *Ibid*.
[1285] *Ibid*., p. 128.
[1286] *Ibid*., p. 105.
[1287] *Ibid*.
[1288] *Ibid*., p. 129.

because autistic brains are assumed to be less flexible than allistic ones, behaviourism finds itself legitimised in enforcing its mechanising logics: 'repetition, intensity, work as life'.[1289]

Ultimately, this reveals a profound dehumanisation of neuroqueer subjects in ABA. Løvaas himself used to describe his 'patients' as 'persons with eyes and ears, teeth and toenails, walking around yet presenting few of the behaviors that one would call social or human'.[1290] But while important research has been done to demonstrate the co-construction of behavioural 'therapies' targeting gender- and neurodivergence (specifically autism) and their dehumanising effects, less attention has been paid to the entanglement of autism and animality in these scientific apparatuses. What does it mean that the conversion therapies to cure autistic children rely on methods that have historically contributed to the mechanisation of nonhuman animals' behaviour? I argue that because it intersects neuronormativity and speciesism, ABA lends itself to being described as an apparatus of bestialisation. Through its historical epistemic pairing of nonhuman animals and autistic humans, it evidences an assumption that a(û)nimal behaviours constitute a prime example of what was described as a mechanistic psychology.

The idea of a similarity between ABA and other forms of behaviourism targeted at nonhuman animals finds a convincing example in Ido Kedar's book. There, Ido's mother, Tracy, recounts that '[o]ne of Ido's old ABA instructors actually WAS a dog trainer as well. She helped us to train one of our dogs to get used to living with cats and remarked that she was really doing the same thing as ABA'.[1291] Such an observation is particularly unsurprising when read together with Yergeau's descriptions of behaviourist interventions on neuroqueer subjects, which exude a clear sense of mechanisation and bestialisation.

Behaviourist approaches, as noted, have also played an important role in fostering bestialising and reductionist understandings of animality in the sciences. Yet, already in their time, they were opposed by comparative and animal psychologists, such as Frederik Buytendijk, who favoured more holistic and phenomenological methods and, ultimately, what can only be described as a more epistemically generous understanding of animality.[1292] In this way, behaviour need not be reduced to a reductionist and mechanistic framework. On the contrary, philosophical ethology and etho-phenomenology can serve as alternative frameworks to understand a(û)nimal behaviour.

Due to the widespread hegemony of ABA in the clinic of autism to this day, much of the scholarship developed in critical autism studies and neurodiversity studies has focused on this approach. In this subsection, I highlight another site of bestialisation which has received less

[1289] *Ibid*.
[1290] Løvaas, cited in Silberman, *NeuroTribes*, p. 223.
[1291] Kedar, *Ido in Autismland*, p. 23, capital letters in original.
[1292] For example, Buytendijk opposed Skinner's argument that animals do not *see* but only *look towards*, which represents a particularly mechanistic and bestialising perspective. See Buytendijk, *L'Homme et l'Animal*, p. 6.

attention: the development of animal models in autism science. There, all tropes found in Yergeau – the fraught entanglement of biology and behaviour, the repression of will, desire, and intentionality, and the obsession with normalising behaviour – will make a striking reappearance.

b) The Co-Construction of Autism and Animality in Autism Science: Introducing Animal Models

Autism science – a field of research whose 'goal is to understand the underlying biological causes of autism and develop new treatments that improve the real lives of real people'[1293] – heavily relies on animal models. '"In laboratory jargon", a model has two meanings: "the animal species that reproduces and mimics certain human traits", on the one hand, and "the test" designed to reveal them, on the other'.[1294] By altering the biology of organisms, most commonly rodents, autism scientists attempt to identify potential genetic or environmental 'risk factors' for autism, or what they call Autism Spectrum Disorder.

This search for a biological aetiology, already envisioned by Leo Kanner as early as 1943,[1295] first developed in the 1960s and 1970s with early studies on social behaviour in primates and rodents using sensory deprivation and maternal separation.[1296] The 1980s and 1990s led to the development of the kind of pharmacological interventions I am interested in here. Notably, autism science research has increased exponentially since the 2000s as new funding was granted by national agencies like the National Institutes of Health in the United States to combat the so-called autism 'epidemic'.[1297] At the same time, as the field of autism science continues to grow, scientists are becoming more and more aware that autism encompasses 'a wide variety of symptoms and comorbidities that ironically keep growing as studies attempt to narrow down mechanisms. As such, there are multiple mechanisms that contribute to the etiology of the disease'.[1298]

First, genetic studies have been conducted using the transgenic and knock-out methods. The transgenic method, perhaps better known, involves introducing exogenous gene sequences

[1293] Autism Science Foundation, 'What we fund', n.d., accessed 20 January 2025. https://autismsciencefoundation.org/what-we-fund/.
[1294] Burgat, *L'Inconscient des animaux*, p. 103. I translated this and all later citations of this reference from French.
[1295] Joshua Golt and Rajesh K. Kana, 'History of Autism', in *The Neuroscience of Autism*, ed. Rajesh K. Kana, London: Academic Press, 2022, p. 12.
[1296] See Harry F. Harlow, Robert O. Dodsworth, and Margaret K. Harlow, 'Total Social Isolation in Monkeys', *Proceedings of the National Academy of Sciences of the United States of America*, vol. 54, no. 1 (1965), pp. 90–7.
[1297] Silberman, *NeuroTribes*, p. 17.
[1298] Jheel Patel, Jodi Lukkes, and Anantha Shekhar, 'Overview of Genetic Models of Autism Spectrum Disorders', *Progress in Brain Research*, vol. 241 (2018), p. 12.

– for instance, taken from autistic people – into the animal's genetic material. The knock-out method entails erasing or altering endogenous genetic sequences so they become non-functional. By comparing the model organisms' behavioural and physiological responses with those of control organisms, scientists determine whether specific genetic sequences are at play in the development of autism.

Today, the heritability of autism – a statistical measure of the influence of genetic factors on a given phenotype within a given population – is estimated to be 80%.[1299] As ethologist Michel Kreutzer notes, however, 'genetic vulnerability is sensitive to childhood trauma, maternal drug use, urban living, migration, and infection by certain viruses or parasites during maternal pregnancy'.[1300] Consequently,

> the genotype of a strain is rarely sufficient to provide an 'ideal' animal model, i.e. one with traits similar to the human pathology being studied. In order to obtain the desired phenotype, or one that is compatible with the research planned, it is often necessary to guide the neurobiological and social development of individuals. This requires intervention both in pregnant females and in the neonatal environment.[1301]

Indeed, while scientific studies report from one hundred[1302] to eight hundred[1303] genes identified as potential 'risk factors' for autism – the latest addition at the time of writing being variants in *DDX53*[1304] – social and environmental factors are increasingly shown to play a decisive role in the genesis of autism. Besides genetic material, various other chemical components have been identified as possible contributors to autism in the brain and gut regions. Neurobiological autism research has also investigated various brain areas, such as the prefrontal cortex, the amygdala, and the cerebellum. Various metabolites (such as taurine and 5AV) and medicinal drugs (such as valproic acid, or VPA) have also been identified as potential 'risk factors' or 'inhibitors' of autistic behaviour.[1305] More recently, the brain-gut axis has been highlighted as a potential substrate for the genesis of autism.[1306]

[1299] Jasmine M. McCammon and Hazel Sive, 'Addressing the Genetics of Human Mental Health Disorders in Model Organisms', *Annual Review of Genomics and Human Genetics*, vol. 16 (2015), pp. 173–97.
[1300] Michel Kreutzer, *Folies animales*, Paris: Le Pommier, 2021, pp. 116–17. I translated this and all later citations of this reference from French.
[1301] *Ibid*., p. 120.
[1302] Guillaume Huguet et al., 'The Genetics of Autism Spectrum Disorders', in *A Time for Metabolism and Hormones*, ed. Paolo Sassone-Corsi and Yves Christen, pp. 101–29, Cham: Springer, 2016.
[1303] Jiana Yin and Christian P. Schaaf, 'Autism genetics – an overview', *Prenatal Diagnosis*, vol. 37, no. 1 (2017), pp. 14–30.
[1304] Marcello Scala et al., 'Genetic Variants in DDX53 Contribute to Autism Spectrum Disorder Associated with the Xp22.11 Locus', *The American Journal of Human Genetics*, vol. 112, no. 1 (2025), pp. 154–67.
[1305] Sharon Gil et al., 'Human Gut Microbiota from Autism Spectrum Disorder Promote Behavioral Symptoms in Mice', *Cell*, vol. 117, no. 6 (2019), pp. 1600–18.
[1306] Cinara L. Gonçalves et al., 'The Many Faces of Microbiota-Gut-Brain Axis in Autism Spectrum Disorder', *Life Sciences*, vol. 337, no. 122357 (2024), n.p.

Due to the complexity of the biological mechanisms that contribute to the genesis of autism, some autism scientists consider animal models the only viable way to isolate specific components, particularly because of the highly regulated experimental conditions in which they are developed:

> Animal models are expected to help us understand how genetic and environmental factors (social, biological and physical) interact during the development of individuals and lead to major disorders. Advances in our knowledge now depend on our understanding of the interactions between organisms, their genomes, and their physical and social environments, from conception to death. This can only be achieved by experimenting on animal models, which are the only way of controlling these different parameters. As a result, we will have to go back and forth between studies on humans and on these animals.[1307]

By centring on aetiology, autism science not only seeks to disentangle the so-called 'puzzling' nature of autism, but it also often relies on the search for a so-called 'cure'. When this is the case, this curative horizon reflects on the model animals, which must not only 'present symptoms with an aetiology comparable to those of humans, insofar as their origin is known [but also] respond to existing treatments in a similar way to humans, which is what researchers call "predictive validity"'.[1308]

However, for many years, the autistic community has been vocal in demanding that autism science put a stop to aetiological research and instead focus on what affects the everyday life of autistic people across their lifespan, like sensory issues or cross-neurotype acceptance.[1309] With the development of the neurodiversity paradigm in the last three decades, which affirms that neurodivergences, like autism, ADHD, Down syndrome, Tourette syndrome, or dyslexia, are part of the normal diversity of neurocognitive forms in our species, the community has argued that autism is not a pathology and that autistic people do not need to be cured. Yet, by persisting in its medical paternalism,[1310] autism science has confirmed, over and over, its deep attachment to the pathology paradigm.

In recent years, the development of the neurodiversity paradigm has revealed the need for situated knowledges of autism. While autism science remains focused on its curative horizon and the race towards aetiological truth, autistic communities have been developing neurodiversity-affirming theories of autism. At the same time, active efforts remain essential not only to formulate better theories but also to dissect, resist, and ultimately dismantle the

---

[1307] Kreutzer, *Folies animales*, p. 117.
[1308] Kreutzer, *Folies animales*, pp. 120–1.
[1309] See Eilidh Cage et al., 'What are the Autism Research Priorities of Autistic Adults in Scotland?', *Autism*, vol. 28, no. 9 (2024), pp. 2179–90.
[1310] See Laurence B. McCullough, 'Paternalism', in *Encyclopedia of Global Bioethics*, ed. Henk ten Have, pp. 2157–65, Cham: Springer, 2016.

pathology paradigm as it operates within autism science. This case study examines the use of animal models in autism science as a site of co-construction of autism and animality. It is now clear that autism science draws on (but also consolidates and sometimes reformulates) pre-existing epistemic constructions of autism developed in psychology and psychiatry, which rely on problematic forms of epistemological violence, dehumanisation, and objectification.[1311] However, less attention has been paid to the role that animality – and, as it happens, very real, flesh-and-blood animals – have played in this construction.

What does it say about the (co-)construction of autism and animality in autism science that the beings at the basis of scientific descriptions of autism in humans – primarily mice and rats – are effectively excluded from the category itself? What can we learn about autism science when we note that the very operation by which autism is objectified, pathologised, and medicalised relies on the objectification, pathologisation, and medicalisation (not to mention the instrumentalisation and exploitation) of nonhuman animals? How does the current complexification of scientific conceptions and practices of animal models, rooted in new forms of humanitarianism, coexist with a persisting dehumanisation and bestialisation of both model organisms and autistic humans? Most importantly, perhaps, how can autistic people turn their forced and technologically-mediated bond with nonhuman animals into a movement of resistance to the objectification and bestialisation of autism while also contributing to the liberation of their nonhuman siblings?

These questions are rooted in academic traditions committed to exploring the connection between the onto-epistemic and the ethico-political, such as feminist science and technology studies, critical autism studies, critical animal studies, posthumanism, and philosophical ethology. By asking these questions, I set out to examine the crucial issues that arise when we take the entanglement of scientific and social phenomena seriously. Without seeking to resolve the question of whether model animals are *actually* autistic – or even under what conditions we might suggest that they are – it is worth examining and inhabiting the non-innocent contact zone where autistic people and animal models together endure, and may potentially resist, the troubling practices of autism science.

However, I am not trying to suggest that autism is uniquely targeted by scientific practices of animalisation compared to other forms of neurodivergence and disability. Given that contemporary biomedical research heavily relies on animal models, similar arguments may apply to other realities too. However, given the layered histories and various sites of entanglement of autism and animality in the sciences – of which the translation of Skinner and

[1311] Botha, 'Community Psychology'.

Pavlov's animal behaviourism to autistic humans through ABA is only one example – autism science appears as a particularly productive site of inquiry for such discussions.

In this subsection, I carry out an analysis of the co-construction of autism and animality in autism science based on a corpus of scientific productions on animal models at large and of autism specifically. While I am not suggesting that this corpus exhausts the scientific discussions on animal models of autism or provides the latest and strongest evidence – this is not what is at stake here – I suggest that it is representative of a large scope of problems and topics and that it offers an overview of the general mindset and grammar of autism science. This corpus includes both primary and secondary sources, with their authors expressing epistemic positions on animal models that range from critical to legitimising, and at times combine both. Some involve direct use of animal models while others reflect on the concept of model organisms more broadly. With this deliberately diverse and partial corpus, I do not so much seek to draw universal conclusions about the onto-epistemology of animal models in general or animal models of autism in particular, but rather to exemplify some of their potential shortcomings and the ethico-political concerns they simultaneously raise.

In this way, by exploring the epistemic foundations and limitations of the animal models of autism, I first evidence the role of autism science as a field that reproduces and crystallises the pathologising representations of autism developed in psychiatry. Moreover, insofar as the autistic behaviour perceived in or projected onto the model organisms functions as a tool for determining the origin of a clinical syndrome denied to these very animals, I show that animality and specifically nonhuman animals are reduced to constitutive others of medicalised autism. Then, I suggest that by discarding their animals' lived experience and subjective preferences, autism scientists implement apparatuses of bestialisation which mechanise animals and autistic traits. In doing so, they prevent themselves from truly learning about the animals or autism outside the pathology paradigm.

c) The Onto-Epistemology of Animal Models: Pathologisation, Reductionism, Analogism

In their paper on the Intense World Theory of autism, Henry and Kamila Markram explicitly rely on an animal model of autism (see Chapter 1).[1312] While they admit that 'there is a vast gap between an animal model and autism, that is currently only recognized for humans',[1313] they

[1312] Markram and Markram, 'The Intense World Theory'.
[1313] *Ibid*., p. 1

suggest that 'many of the high-level cognitive functions [which are relevant in the study of autism] can also be observed and measured in much lower mammals such as rats and mice'.[1314]

Contrary to what one may think, the proximity between rodents and autistic humans, which lays the groundwork for animal models of autism, does not stem from the idea that autistics are closer to animals than to their fellow humans, like some – including autistic people – have sometimes argued (see Chapter 4). In the animal models, it is not only autistic people who are said to share anatomical and cognitive traits with nonhuman animals, but the whole human species. Indeed, a core hypothesis guides biological research on animal models: 'the postulate that humans and animals share basic neurobiological mechanisms associated with complex behaviors [and that these] bio-behavioral homologies are the consequence of common origins, as indicated by evolutionary mechanisms'.[1315] What are bio-behavioural homologies, and what do they say about the way autism is understood in autism science? To begin with, there is a curious entanglement of biology and behaviour at stake in the phrase 'bio-behavioural': two regimes are identified that seem to differ in nature. The biological is not the behavioural, but the two are seemingly related. With the hyphenation, an entanglement is simultaneously assumed and disputed. Which comes first, the biological or the behavioural? Is their relation one of causality or analogy?

These onto-epistemic matters are described in the scientific literature as the problem of the 'genotype-to-phenotype gap': do genes cause behaviour or does behaviour alter genetic expression? New methods (such as *in vitro* stem-cell techniques) have been developed to help scientists bridge this problematic gap.[1316] Yet, while these difficult questions constitute the background – and certainly the weak spot – of animal model research, they are quickly evacuated by a simple assumption: behaviour results from biology. For instance, the Markrams used valproic acid (VPA) to trigger autistic behaviour in their mice. There is a form of physicochemical linear causality at stake here – the idea that a specific alteration of genetic makeup or chemical flows within the organism is sufficient to induce autistic traits. These biological processes function not only as a necessary condition for describing the genesis of autistic behaviour, but also as a sufficient one. They are destined to exhaust the description of aetiology, thereby seemingly ignoring the role of intentionality and social factors.

The postulate of bio-behavioural homologies between human and nonhuman animals goes even further. Not only are biological causes related to behavioural effects, but it is suggested that the same causes produce the same effects across species. As Patel et al. explain,

---

[1314] *Ibid*., p. 3.
[1315] Sylvie Tordjman et al., 'Animal Models Relevant to Schizophrenia and Autism: Validity and Limitations', *Behavior Genetics*, 37 (2007), p. 71.
[1316] Patel, Lukkes, and Shekhar, 'Overview', p. 25.

‘[b]ehaviorally, VPA exposure models in rodents present with abnormal social behavior and vocalizations, repetitive activity, anxiety, fear, and impaired motor activity. These studies suggest that environmental exposure to VPA can lead to core behaviors common in ASD, in addition to comorbid behavioral deficits (Nicolini and Fahnestock, 2018)’.[1317]

While it appears that animal models of autism rely on a form of biological determinism, the search for aetiology bears witness to a behavioural definition of autism. In order to determine whether mice are displaying autistic traits, scientists cannot rely on biological data only; they also need to conduct behavioural measures based on official diagnostic criteria provided by the DSM. In the current version of the manual, the DSM-5, autism falls under the overarching category of Autism Spectrum Disorders, which encompasses a variety of forms. The diagnosis of Asperger syndrome was removed from the classification in 2013, and the three symptom categories from the previous version (impaired social interaction, language and communication deficits, and repetitive and restricted behaviours) were narrowed down to two. These classification changes do not necessarily represent a step towards a more accurate account of autism; rather, they crystallise ongoing debates encompassing various positions within psychiatry.[1318]

The scientists in my corpus show awareness of the challenges posed by their reliance on nosographic classifications. For instance, Patel et al. explain that

> [m]ore than a century ago, [the] ASD concept was first used to describe a set of patients who were unusually withdrawn from social interactions. Since then, it has taken approximately 70 years to establish ASDs as a group of neuropsychiatric disorders with unique clinical features. Even so, given that this cluster of syndromes is unified mainly by their symptom complex, it creates great limitations and challenges to studying ASD pathophysiology, especially with the use of animal models.[1319]

While they are aware of the limitations of nosographic categories, autism scientists sometimes reproduce reductive gestures in their experimental protocols.[1320] Perhaps out of necessity, they rely on current psychiatric knowledge to distinguish their human donors. With the Autism Diagnostic Observation Schedule (ADOS), they classify donors in three categories: typically

[1317] *Ibid*., p. 11.
[1318] Golt and Kana, ‘History of Autism’.
[1319] Patel, Lukkes, and Shekhar, ‘Overview’, p. 19.
[1320] For instance, Sharon et al. report a gender gap in their results on behavioural changes induced by ASD microbiota. However, they are quick to admit that ‘it is unknown whether this male bias was a true effect or an inherent result of our experimental design, using only human male donor samples in this study’. See Gil et al., ‘Human Gut Microbiota from Autism Spectrum Disorder’, pp. 1602–3. Similarly, Patel et al. note that, in recent literature, sex-specific differences have been evidenced, which suggests that traditional ASD diagnoses suffer from a sexist bias. The authors thus call for further research in genetic models to counter the effect of biased preclinical and clinical models, which tend to ‘overlook’ females. Further, they go so far as to argue ‘that diagnostic tests need to be improved (Bargiela et al., 2016; Pellicano et al., 2014; Wilson et al., 2016)’. See *Ibid*., p. 26.

developing (TD), autistic (ASD), and mildly autistic (mild-ASD). While the neurodiversity movement has been calling for a stop to hierarchies of functioning degrees in autism,[1321] autism science persists in using this pathologising rhetoric.

A quick inventory of pathologising language in the scientific literature confirms this prevalence of the pathology paradigm: the articles from my corpus use the terms 'disease' (6 occurrences in Sharon et al.) and 'pathology' (8 occurrences in Patel et al.), which are coupled with an evaluation of the 'severity' (4 occurrences in Sharon et al., 2 in Patel et al.) of 'symptoms' (12 occurrences in Sharon et al., 16 in Patel et al.). A curative horizon is evidenced by the use of terms like 'rescue' (2 occurrences in Sharon et al., 17 in Patel et al.), which refers to the goal of reversing, mitigating, or compensating for behaviours induced in model animals through further medicinal or genetic alterations. This demonstrates that autistic behaviours are considered to be deficits requiring 'treatments' (3 occurrences in Sharon et al., 18 in Patel et al.).

Animal models of autism, especially those developed through genetic intervention, have also oriented the recent evolution of nosographic categories. In other words, not only do animal models rely on pre-existing psychiatric classifications and criteria for diagnosing autism, but they have also influenced them. Sociologists of science have documented what they call 'looping effects', namely the process through which genetic hypotheses and evidence about the aetiology of autism have transformed the social and psychiatric understandings of autism, leading to changes in classification and diagnostic expansion and, ultimately, to the recent association of autism with well-known genetic variants until then not associated with autism.[1322] Autism is no longer only understood as a syndrome in its own right – as was the case in both Kanner and Asperger – but also, sometimes, as a symptom within larger syndrome complexes such as Phelan–McDermid syndrome and Rett syndrome, which, it should be noted, are also studied through animal models.

Another site where the scientific understanding of autism undergoes transformation is found in the fairly common situation in which the scientists are autistic themselves. Admittedly, being autistic does not prevent one from producing or disseminating potentially harmful metaphors and ideas, nor does it dispel the risk of self-pathologisation (see Chapter 5). Nonetheless, could it be that less deficit-centred and less stigmatising science is produced in these contexts? This was, indeed, the conclusion I drew from my study of the Intense World Theory of autism in Chapter 1, highlighting at once good intentions, partial recourse to the

[1321] Steven K. Kapp, 'Profound Concerns About "Profound Autism": Dangers of Severity Scales and Functioning Labels for Support Needs', *Education Sciences*, vol. 13, no. 2, 106 (2023).
[1322] Daniel Navon and Gil Evil, 'Looping Genomes: Diagnostic Change and the Genetic Makeup of the Autism Population', *American Journal of Sociology*, vol. 121, no. 5 (2016), pp. 1416–71.

neurodiversity paradigm, residual pathologisation, cisheteronormativity, and Aspie supremacist leanings.

Due to the systemic nature of neuronormativity and its profound historical involvement in autism science, it would seem that even autistic-led autism research with animal models harms autistic communities, exemplifying a unique form of self-pathologisation. I note that these distinct scientific practices often resort to neurodiversity lite, if not also pathology lite. Beyond these marginal cases, the majority of autism science remains rooted in the pathology paradigm, even when contributing to new understandings of autism within psychiatry. These transformations of the autism category by autism scientists themselves not only entail its expansion, but also a pluralisation of its meanings, in such a way that the populations targeted by some meanings of the term do not necessarily align with the autistic community as we commonly refer to it in the singular. This complicates the search for an aetiology of autism, scientists being tasked with examining new genetic material, but this also complicates the use of the category 'autism', which reveals itself far from monolithic. This very complexity and this epistemic uncertainty make animal models available to scientists interested in exploiting them. Indeed, the biological openness of model organisms makes them ideal objects of knowledge and, paradoxically, of collaboration.[1323] In this sense, the pathologising representation of autism I just described is applied (while perhaps being reconfigured) to animals as they are forcibly recruited into the animal industrial complex.[1324]

As I mentioned, animal models of autism rely on behavioural studies. While some of these studies require human donors (especially in the transgenic method), behavioural studies are also conducted on animals. In this context, the diagnostic criteria for ASD in humans (such as asocial or repetitive behaviour) are transposed onto nonhuman animals with the help of a scientific (re)construction of the typical behavioural repertoires of the species, that is, an *ethological* construction. As Patel et al. explain, 'social behavior in zebrafish is determined via their ability to swim toward other fish, engage in dominance, and freeze. For example, shank3 mutants display an ability to swim toward an area with other conspecifics compared to an area with none, and they exhibit abnormal repetitive behaviors (Liu et al., 2018)'.[1325]

This might suggest that the mutant zebrafish display autistic behaviour. Yet according to Tordjman et al., it is not guaranteed that the specific anatomical and biological pathways that allow scientists to 'rescue' behaviours in model animals will have the same effects in humans.

[1323] Gail Davies, 'What Is a Humanized Mouse? Remaking the Species and Spaces of Translational Medicine', *Body & Society*, vol. 18, no. 3–4 (2012), pp. 126–55.
[1324] See Anne McGuire, *War on Autism: On the Cultural Logic of Normative Violence*, Ann Arbor: University of Michigan Press, 2016; Alicia A. Broderick, *The Autism Industrial Complex: How Branding, Marketing, and Capital Investment Turned Autism into Big Business*, Gorham, Myers Education Press, 2022.
[1325] Patel, Lukkes, and Shekhar, 'Overview', pp. 21–2.

This can be explained by the existence of different anatomies across species, but also by functional and metabolic differences: 'a gene that has a strong structural similarity at the DNA as well as at the RNA level of organization or a strong functional similarity, in two species can however result in different phenotypes in these species'.[1326] In the example from Patel et al., it follows that '[w]hile this could indicate an ASD-like phenotype, zebrafish have a brain anatomy that is different from humans. Until we can connect such behavioral deficits and molecular targets for rescuing the deficits in the zebrafish model to humans, we cannot truly accelerate translation of the findings to ASDs.'[1327]

Another issue arises during behavioural testing, as the experimental context 'does not [always] reproduce a situation commonly seen in humans, and thus the effects of this environmental manipulation cannot be really generalized to humans'.[1328] The reverse is also true: 'some human environmental factors are not really reproducible in animal models [because] animals do not live in the same environment as humans'.[1329] It seems that the inferences allowed by animal models are necessarily limited. Indeed, Tordjman et al. conclude that '[i]n any case, it is noteworthy that by definition […] a model is always an abstract, approximate and reductive construction, which must be confronted with the complexity of reality'.[1330]

The notion of model indeed implies that the behaviour in question functions only as a simplified version of the 'real thing'. The model usually denotes a simplification, which could be understood as the artificial and deliberate singling out of specific autistic traits, abstracted from the whole of the so-called autistic spectrum disorder. In a mechanistic conception like that of the animal models, because the same causes are bound to produce the same effects, it might seem possible to isolate individual mechanisms responsible for individual autistic traits. As Burgat notes, in the experimental setting, syndromes are 'supposedly reduced to [their] symptom[s]'.[1331]

Yet '[a] biological anomaly initially provoked in an animal model risks in fact to lead to a cascade of biological and behavioral events involving interactions between different biochemical and neuro-anatomical systems. Thus, these animal models do not necessarily test specifically one underlying biological mechanism'.[1332] There is thus a form of reductionism at work in autism science, where complex entanglements between biological, psychological, environmental, and cultural factors are reduced to simple causal mechanisms. Boris Cyrulnik concludes that 'animals teach us that we must abandon exclusive linear causality. The same

[1326] Tordjman, Sylvie et al., 'Animal Models', p. 91.
[1327] Patel, Lukkes, and Shekhar, 'Overview', p. 22.
[1328] Tordjman et al., 'Animal Models', p. 72.
[1329] *Ibid*.
[1330] *Ibid*.
[1331] Burgat, *L'Inconscient des animaux*, p. 103.
[1332] Tordjman et al., 'Animal Models', p. 72.

sensory isolation does not have the same effects depending on the stage of development of the deprived living being'.[1333]

How are we to understand the willingness of authors like Tordjman et al. to acknowledge the epistemic limitations of animal models? A growing trend in the biomedical sciences is that scientists are beginning to reflect on the complexity of their objects more explicitly. As such, limiting my analysis to a diagnosis of simplification and reductionism might, ironically, amount to committing the very reductionist gesture I am purporting to resist. Instead, it appears that complexity has increasingly become the norm in laboratory settings, as medical history and bioethics scholar Nicole C. Nelson reports following extensive fieldwork in science laboratories.[1334] Perhaps paradoxically, complexification can reinforce the legitimacy of largely reductionistic animal models, either by prompting future experimental refinements or by signalling a very overt posture of epistemic prudence.

As such, when they humanise rodents to learn about autistic humans, autism scientists are also humanising their practice, which can no longer be described along the traditional lines of epistemic reductionism and biopolitical sovereignty. Contemporary uses of animal models may rather be associated, in the best cases, with pathology lite perspectives, where complexity serves as an operator of normalisation, worryingly blurring the lines not only (or, as we will see, not primarily) between *human* and *nonhuman*, but also and mostly between *humane* and *inhumane*.

In both cases, the regime of animal models does not simply resort to reduction. While the mice do seem to display behaviours that could be classified as autistic, this label is denied to them. The lexicon mobilised by researchers suggests that models rely on an analogical principle. Indeed, researchers do not conclude from their behavioural testing that the mice (or rats, or zebrafish) display autistic traits, but rather 'ASD/autism-like' (20 occurrences in Patel et al., 4 in Sharon et al.), 'ASD/autism-related' (7 occurrences in Patel et al., 4 in Sharon et al.), or 'ASD/autism-relevant' (7 occurrences in Sharon et al.) ones. What is at stake here is not that the animal models do not present all traits of autism – or at least not enough to qualify for a formal diagnosis – but rather that the question itself is irrelevant. While the bio-behavioural homology that lays the groundwork for the regime of animal models might suggest such a thing as *animal autism*, this is not what autism science is after.

In this context, autism is defined at the same time as a syndrome (or a range of syndromes) whose boundaries and core traits are well-defined and delimited and as a metaphor for abnormal

[1333] Boris Cyrulnik, 'Modèle animal ?', *Bulletin de l'Académie Nationale de Médecine*, vol. 196, no. 9 (2012), p. 1900. I translated this and all following citations from this reference from French.
[1334] See Nicole C. Nelson, *Model Behavior: Animal Experiments, Complexity, and the Genetics of Psychiatric Disorders*, Chicago: The University of Chicago Press, 2018.

repetitiveness and asociality.[1335] As Cyrulnik says, 'the greatest danger of the animal model is not biological, it comes from the implicit ideology of words'.[1336] The animal models of autism bear witness to the naturalisation of autism in autism science: autistic traits are turned into metaphors for abnormal behaviour.

d) A Non-Subjective Autism: Behaviourism and the Bestialisation of Model Animals

It is not only autism that is naturalised in autism science; so are its model animals. Vinciane Despret argues that scientific descriptions of animal behaviour often reveal more about the scientists than the animals they study.[1337] Following this insight, we might ask: do the descriptions of 'autistic-like' mice in autism science tell us more about the scientists and their *representations* of the mice, or about the mice themselves?

It appears that the development of animal models relies on an ambivalent relationship with the animals. Despret distinguishes between two perspectives: the 'naturalistic animal', which relies on tacit knowledge used in scientific practice but never formally mentioned in reports, and the 'analytical animal', where the emphasis is placed on observable data.[1338] It is noteworthy, following Despret's typology, that mentions of 'autistic rats' abound in direct and indirect speech from the founders of the Intense World Theory, Henry and Kamila Markram, as reported in Lorenz Wagner's book, whereas this phrase is nowhere to be found in the actual publication of the two scientists.[1339]

The notion of bio-behavioural homologies does suggest an implicit knowledge that rodents are subjective beings: 'don't we have to postulate, firstly, a psyche in the animals used and, secondly, a psychic continuity between them and humans for these models to have any relevance?'[1340] But in the experiments, this subjectivity is backgrounded and replaced by the

---

[1335] Indeed, as I have already mentioned, the qualifier 'autistic' is often (but problematically) used in common discourse to describe individuals or phenomena which show no relation to autism as a neurodivergence but only evoke stigmatised qualities like asociality, withdrawal, repetitiveness, or rigidity.
[1336] *Ibid*., p. 1904.
[1337] See Despret, *The Dance of the Arabian Babbler*, p. 5.
[1338] Despret, *What Would Animals Say*, p. 90. Despret adds that 'the anthropomorphism that is constantly at work within the practice should disappear once one leaves the backstage and the scientist reports the results' (*Ibid*.). This makes ethnographic inquiries like Nicole C. Nelson's particularly useful to understand the psychological, sociological, ideological, and material processes at work in establishing and maintaining animal models as adequate and legitimate practices for the biomedical sciences.
[1339] See Wagner, *The Boy Who Felt Too Much*, Chapter 8, para. 4: 'Monica was tasked with reintegrating autistic rats into general rodent society, mitigating and reversing their symptoms', para. 22: Henry: 'Autistic rats don't sniff each other; they avoid each other and prefer to play with wooden blocks', and para. 23: 'Kamila: Autistic rats don't like change'. In total, I reported eleven occurrences of the phrase 'autistic rat(s)' in the book.
[1340] Burgat, *L'Inconscient des animaux*, p. 99.

analytical conception of the animal. Indeed, '[i]t is not the animal that is taken as a model, but the animal-human system that can be shared. The limbic system of memory and emotion, early mother-child interactions, and interaction rituals are homologous structures in all mammals'.[1341]

In the gesture of attributing autism-like (but not autism proper) to the model animals, animal subjectivity is simultaneously assumed and negated. In her research on animal models of anxiety and depression, Burgat examines the concept of behavioural despair: 'Here is a notion that, in such a context, one might have expected to fall under the accusation of anthropomorphism. Therefore, its meaning is attenuated by its qualifier: it is "behavioural"; in other words, only observable in the third person, perhaps illusory, not experienced by an *apparently* desperate subject.'[1342]

Similarly, terms like 'ASD-like' and 'ASD-related' start with an analogy between humans and animals, opening the way to an acknowledgement of animal subjectivity. Yet this analogy is attenuated by the hyphenated part, which rhetorically excludes 'the language of psychology from the […] experimental' field.[1343] In this way, terms like autism and ASD, 'which are the identifiers of the research, must necessarily be preserved, even though the model presents only the simulacrum, the sketch, the limited representation', but these terms can never truly apply to the animals themselves.[1344]

'Are we to understand that the despairing [or autistic-like] animal produces a non-subjective despair [or a non-subjective autism]?'[1345] With this question, Burgat evidences the fundamental limitation of all attempts 'to "model" subjectivity in general, and even more so through the medium of animals that are held here to be devoid of it'.[1346] This suggests not so much that animal models are imperfect – and therefore that they should be improved – but rather that they are inherently inappropriate due to their overlook of the psyche.[1347]

While animal subjectivity is definitely at play here, it can only subsist in a minimal form in scientific experiments. The protocols deployed in autism science, therefore, constitute what Despret calls 'dispositives that "make stupid" [*rendent bête*]',[1348] and what I have called apparatuses of bestialisation in Chapter 4. As a reminder, to bestialise often entails relying on a speciesist distinction between the intelligent, sensible human and the irrational or machine-like animal. The analytical and mechanistic conception of animality that underpins animal models points to a form of bestialisation of model organisms.

[1341] Cyrulnik, 'Modèles animaux ?', p. 1899.
[1342] Burgat, *L'Inconscient des animaux*, p. 102, emphasis in original.
[1343] *Ibid*., p. 99.
[1344] *Ibid*., p. 103.
[1345] *Ibid*.
[1346] *Ibid*.
[1347] *Ibid*., p. 104.
[1348] Despret, *What Would Animals Say*, p. 13. For the sake of clarity, I will use the synonym 'apparatus' as a replacement for 'dispositive', which is less common in English than in French.

As Florence Burgat playfully suggests, by trying to learn from mice about autism in humans, the scientists who develop animal models are setting a trap for them – how could laboratory mice ever teach us anything about human autism? – but 'they are the ones who end up falling into it'.[1349] Yet, by insisting on the complexity of their objects and questions, they can rhetorically escape the critique of the inhumaneness of their practice.[1350] Such a rhetorical posture suggests that the bestialisation that is routinely performed on model organisms is unavoidable. From my perspective, the rejection of abolitionist alternatives through a rhetoric of complexity operates as a humanitarian strategy which reframes the status of the scientists from one of complicity to one of reason and responsibility. In this way, the experimenters are enabled to weaponise complexity against what now appears as little more than oversimplified critiques and silly concerns [*bêtises*]. This reversal of violence and stupidity into complexity and responsibility, I believe, participates in the bestialisation of the animals and of concerned observers of this practice. But, following Burgat's observations and Derrida's thinking (see Chapter 4), it appears that the scientists are directly caught up in the becoming-*bête* they inflict on the mice.

While the validity of knowledge about autism produced through animal models is questionable, it seems even clearer that, with these apparatuses, scientists learn nothing of value about the animals themselves. The latter are considered 'relevant' to autism science only insofar as they reproduce, analogically, the predefined symptoms of autism as they appear in the DSM. Indeed, the scientists engage with them only because they hope to gather data that can be generalised and transposed to autistic humans. Moreover, as Despret shows, scientific apparatuses often work to purify experimental situations from any 'ruse' the animals might pull.[1351] Experimental protocols require clear positions: the subject (the experimenter) observes the object (the animal) from the outside by controlling the situation's coordinates. The experiment's goals and boundaries must be clear: animal autism (but also animal agency or animal resistance) is not part of the equation. There should be no parasitic noise, as Michel Serres calls it (see Chapter 1): scientists should not let themselves be surprised by their

[1349] Florence Burgat, direct speech during the seminar session 'Penser-avec les animaux : vers les posthumanités', Atelier d'études animales, EHESS, 11 February 2025.
[1350] This transpires in Carrie Friese's description of animal experimentation as 'more-than-human humanitarianism', a site where deep contradictions, such as suffering and compassion, are brought together. This is made possible by the construction of the animal as a distant other who is to be cared for compassionately – a humanitarian model that is fraught with paternalistic sentiments. This renewed humanist thought, though more *complex* than its predecessors, remains problematic because its purported humaneness confers upon it an enhanced moral status. See Carrie Friese, *A Mouse in a Cage: Rethinking Humanitarianism and the Rights of Lab Animals*, New York: New York University Press, 2025.
[1351] Despret, *What Would Animals Say*, pp. 92–5.

objects.[1352] In this sense, it does not matter what the mice feel or experience during the experiment.

'What would animals say if we asked the right questions?' Despret wonders. One such question might be: 'What could they possibly be interested in?'[1353] Interest, as we have seen in Chapter 5, is a contingent, subjective phenomenon, not a bio-behavioural mechanism. Autism scientists tend to forget this when they engage with their model animals: for them, 'the rat is not interested; he is motivated or incited'.[1354] But what does it feel like for a mouse to behave in an autistic (or autistic-like) way? While autism scientists purport that they are working in the interest of autistic people, the lived experience of autism does not seem to play a role in their work. Autism is studied from the outside: the behavioural traits displayed by the animal models never seem to correlate with affective and emotional states, let alone positive ones. According to Burgat, 'any interpretation of [the meaning of] animal behaviour', would appear 'to be nothing more than an "anthropomorphic drift"'.[1355] In this way, both autism and animality are approached from a behaviourist perspective, which contributes to their bestialisation.

This epistemic pattern is rife with ethico-political implications. Indeed, the bestialising and reductionist view taken on animals in autism science is core to the pathology paradigm and thus reflects the scientists' problematic representation of neurodivergence. As Burgat notes with psychiatrist and psychoanalyst Piéra Aulagnier, the relentless experimental work of animal modelling stems from 'the desire to understand the enigmas of human behaviour',[1356] a desire which, as I have suggested in the context of autism, is rooted in medical paternalism and the pathology paradigm. Because of this pathologisation, the experimenter 'no longer hears the cries of animals, he no longer sees blood flowing, he only sees his idea'.[1357]

Autism scientists have no reason to wonder whether their mice are actually autistic and how they feel about it.[1358] Yet I suggest that by refusing to ask the question and by choosing to

[1352] In this way, the species-specific tendencies of the model organisms are used to foster objectivity by purifying the experimental conditions of biases. Everything that brings the experiment's focus back to the specific or subjective situatedness of the animal serves 'to deny all possibility of contact between the experimenter and the object–subject'. *Ibid*., p. 90. This shows that technologies of speciation are also at play here.
[1353] *Ibid*., p. 91.
[1354] *Ibid*., p. 91. As evidenced in Chapter 5, this oversight can sometimes be found in the first-person accounts of autistic people themselves, who might internalise mechanistic rhetoric on autism and autistic interests. This objectification of autistics and animals poses serious challenges to the political project promoted by neurodiversity and antispeciesist movements.
[1355] Burgat, *L'Inconscient des animaux*, pp. 103–4.
[1356] Aulagnier, cited in *Ibid*., p. 101.
[1357] Claude Bernard cited in *Ibid*.
[1358] In her research on animal models of anxiety and depression, Burgat concludes that the experimental conditions 'are not a replica – except in torture chambers – of those that create depressive or anxious states, neuroses or psychoses in human beings' (*Ibid*., p. 100). Further, she argues that it is not 'legitimate to consider as pathological "the impossibility of adapting to the exceptional difficulties constituted by the experimental conditions" that lead to "experimental neurosis", insofar as everything in these devices is predictable since they are designed to generate a desired disorder' (*Ibid*., p. 102). But in the context of autism, which is deemed to be largely neurodevelopmental rather than psychogenic, the possibility of what we could call 'experimental autism' might not be so implausible.

use mice only for instrumental purposes, scientists are bound to ask the wrong questions and give the wrong answers. By recruiting nonhuman animals into apparatuses that are fundamentally uninterested in them and their experiences, autism scientists are reducing nonhuman animals to constitutive others of autism science. Indeed, the mice and rats are helping scientists give the 'autism' concept its very intelligibility and operability while at the same time being excluded from it. They are at once considered close enough to humans to teach us something about human autism and denied the very label they are helping shape. Similarly, autistic humans see their behaviours recruited by a pathologising operation while their voices and desires are neglected.

By suggesting that the bestialising and reductionist view taken on animals in autism science is core to the pathology paradigm and thus reflects the scientists' problematic representation of autism, there is a risk of oversimplifying the complexity of their practice. However, if it is true that complexity is sometimes mobilised as an epistemic and moral justification for harm, could there be value in complicating the opposition between simplicity and complexity? In the next section, I return to the animal models to ask ethico-political questions such as: how can autistic people turn their forced and technologically-mediated bond with nonhuman animals into a movement of resistance to the bestialisation of autism while also contributing to the liberation of their nonhuman siblings? In the next subsection, however, I turn to ethology as a scientific site where autism and animality are brought together through technologies of speciation.

2. From Animal to Human Ethology: The Ethological Theory of Autism as a Technology of Speciation

While behaviour occupies a central place in behaviourist psychology, it is likewise the primary object of ethology – the scientific study of behaviour in human and nonhuman animals. Ethology emerged in the 1930s with the work of Nikolaas Tinbergen, Konrad Lorenz, and Karl von Frisch.[1359] Explicitly opposed to behaviourism's reliance on experimental conditions, ethology studies animals in their ecological contexts, emphasising their innate and species-specific behavioural tendencies, rooted in evolution.[1360] This means that behaviours may be

[1359] Even though the science of ethology emerges in the 1930s, the term was coined in 1854 by Isidore Geoffroy Saint-Hilaire to describe the study of instincts. See Benedetta Piazzesi, *Del governo degli animali*, p. 182.
[1360] This is argued by Nikolaas Tinbergen, 'On Aims and Methods of Ethology', *Zeitschrift für Tierpsychologie*, vol. 20 (1963), pp. 410–33.

biologically selected for the advantage they provide animals in surviving in their environment.[1361]

The classical ethology of Lorenz, Tinbergen, and von Frisch gave birth to three areas of research within modern ethology: cognitive ethology, behavioural ecology, and sociobiology. Cognitive ethology integrates the insights of psychology and the neurosciences, thereby reiterating some of the problems and discussions articulated in the previous chapters. Behavioural ecology brought attention to interspecies and individual behavioural diversity, breaking with classical ethology's emphasis on the species level. Sociobiology, finally, uses neo-Darwinian evolutionary theory to argue that social behaviours are the result of biology, particularly genetics.

Ethology first operated by listing the behaviours that can be observed in given animal species as exhaustively as possible. These lists, called ethograms, include thorough descriptions of behaviours and sometimes a mention of frequency. To develop ethograms, ethologists observe animals in their natural habitats over extended periods. Ethograms allow them to list animals' behavioural repertoires. These are the behaviours performed within given species in relation to particular research questions, contexts, or areas of life. In that sense, behavioural repertoires are generally considered parts of larger ethograms. With ethograms, ethologists are allegedly able to formulate general laws that predict and explain animal behaviour.

Similarly, ethograms have contributed to species classifications. In this way, they are technologies of speciation, which aligns with the critiques I have developed with Anahí Gabriela González in Chapter 4. Particularly, in a contemporary context where some species have already been thoroughly examined, ethograms may act as reductive and normative technologies that limit scientists' ability to be surprised by animals. This is because they contribute to the standardisation of species.[1362] Moreover, as one might expect, the species described in these lists are not simply objective realities waiting to be discovered and scientifically described, but performative constructions. In this sense, ethograms constitute technologies of speciation that give species 'the appearance of substance' – to borrow Judith Butler's phrase (see Chapter 4).

The standardising and normative function of ethograms can be found in the concept of ethological need, which initially referred to the ways 'a large part of animal behaviour is basically determined by instinctive or innate abilities, proclivities and dispositions'.[1363] With

[1361] This idea was proposed by Konrad Lorenz in 'Über die Bildung des Instinktbegriffes', *Naturwissenschaften*, vol. 25 (1937), pp. 324–31.
[1362] That said, ethologists also tend to modify and adapt available ethograms based on their specific contexts of inquiry.
[1363] W. H. Thorpe, 'Appendix', in F. W. R. Brambell, 'Report of the Technical Committee to Enquire into the Welfare of Animals Kept Under Intensive Livestock Husbandry Systems', *Command*, vol. 2836 (1966), page unknown.

this concept, ethologists may sometimes assume a species' uniformity and homogeneity, namely the idea that all individuals in that species would benefit from expressing a given behaviour and suffer when this are not enabled. Certainly, this notion has had positive effects on animal welfare. It highlights the way technological apparatuses and practices developed by the animal industrial complex limit animals' ability to fulfil their behavioural needs. For example, stereotypical behaviours – which might be compared to autistic stimming – in farmed animals and captive zoo animals have been cited by Thorpe as disturbances caused by behavioural restriction.[1364]

However, this notion might also prove limiting and problematic. Indeed, this conception can function as a technology of speciation that rests on ableist and neuronormative assumptions about what a 'good life' entails for a given species. In this regard, some philosophers of ethology, such as Florence Burgat, are using less standardising concepts, such as that of 'preferred behaviours'. Such behaviours, this suggests, may vary and evolve *within* given species or individuals.

Besides the question of standardisation, there is often a form of reductionism at work in ethological research. Indeed, by listing individual behaviours through ethograms, ethologists risk backgrounding the profound contingency and intentionality of behaviour, understood as a way of responding to a unique situation. Similarly, the notion of ethological needs can also lead to a fairly deterministic understanding of animality, in which each behaviour would be mechanically triggered to satisfy an innate need in conformity with transcendental structures. It is as if given behaviours were inherently satisfactory, independent of the psychological motivation an animal may have to express them.[1365] For this reason, Florence Burgat has offered a more phenomenological perspective, in which 'ethological manifestations', namely 'the behavioural style specific to each species, the poses, the facial expressions, and the voices', [1366] are at the core of the analysis. An ethology that focuses more on 'existential coordinates'[1367] than on ethograms would therefore constitute, for Burgat, 'an ideal ethology'.[1368] In such an approach, behaviour would be understood as contingent and dynamic.

[1364] See Thorpe, cited in B. O. Hughes and I. J. H. Duncan, 'The Notion of Ethological "Need", Models of Motivation and Animal Welfare', *Animal Behavior*, vol. 36 (1988), p. 1696.
[1365] For a synthesis of these debates and the possible relevance of the concept, see *Ibid*.
[1366] Burgat, *L'Inconscient des animaux*, p. 27.
[1367] Englebert and Follet, cited in *Ibid*., p. 206.
[1368] *Ibid*.

a) Introducing Nikolaas and Elisabeth Tinbergen's Ethological Theory of Autism

Just as behaviourism, ethology is directly connected to autism. Indeed, some of the most popular scientific theories of autism in the twentieth century were developed in conversation with animal ethology. For example, John Bowlby's attachment theory – which has been used to diagnose abnormal forms of attachment between autistic children and their parents – is sometimes described as 'ethological', since Bowlby was inspired by Lorenz's work on instinct and attachment in baby geese,[1369] as well as by Tinbergens' work on ethological methods.[1370]

Similarly, in the 1960s and 1970s, Harry Harlow conducted experiments on social behaviour in primates, which he described as 'autistic'. These experiments inspired Bruno Bettelheim, who had visited Harlow in 1958.[1371] Ultimately, the psychodynamic understanding of autism, which relied on a psychosocial or psycho-affective aetiology linked to an alleged coldness of mothers, crystallised this entanglement. More importantly, perhaps, ethology was the methodological framework favoured by Niko and Elisabeth Tinbergen to study autism.

In this subsection, I examine the ethological theory of autism developed by Nikolaas Tinbergen and Elisabeth Tinbergen. In doing so, I hope to emphasise the historical co-construction of animal science and autism science. I also highlight the continued centrality of behaviour in the scientific study of autism. Most importantly, I sketch out a parasitic reading that challenges the framing of autism as a civilisation disease, which relies on the alleged divergence between modern behaviours and ancestral human(imal) nature.

As noted above, Nikolaas Tinbergen was one of the founding fathers of scientific ethology, along with Konrad Lorenz and Karl von Frisch.[1372] In 1963, he developed the four questions that would come to define 'the aims and methods of ethology'.[1373] These four

---

[1369] Chloe Silverman, '"Birdwatching and Baby-watching": Niko and Elisabeth Tinbergen's Ethological Approach to Autism', *History of Psychiatry*, vol. 21, no. 2 (2010), p. 183.

[1370] See Marga Vicedo, 'The "Disadapted" Animal: Niko Tinbergen on Human Nature and the Human Predicament', *Journal of the History of Biology*, vol. 51 (2018), p. 197.

[1371] See Lenny van Rosmalen, René van der Veer, and Frank CP van der Horst, 'The Nature of Love: Harlow, Bowlby and Bettelheim on Affectionless Mothers', *History of Psychiatry*, vol. 31, no. 2 (2020), pp. 227–31.

[1372] Tinbergen and Lorenz are often considered the main founders of ethology, even though von Frisch's work on the dance language of honeybees was also part of the initial efforts to develop the discipline. Though Tinbergen and Lorenz collaborated multiple times during their careers, they had different scientific and political views: Lorenz worked for the Nazi regime, which imprisoned Tinbergen in Holland for opposing the exclusion of Jewish academics. At a scientific level, Lorenz's work focused on instincts and imprinting, sometimes in controlled environments, whereas Tinbergen's approach was more inspired by 'natural history and field observation'. See Silverman, 'Birdwatching', p. 177. In his history of ethology, Richard W. Burkhardt Jr. also reports that, 'As Lorenz and Tinbergen later agreed, of the two of them Lorenz was by nature a farmer, while Tinbergen was by nature a hunter.' See Richard W. Burkhardt Jr., *Patterns of Behavior: Konrad Lorenz, Niko Tinbergen, and the Founding of Ethology*, Chicago and London: The University of Chicago Press, 2005, p. 188. He adds that, 'Of the two men, Tinbergen was arguably the more important in furthering ethology's conceptual and practical development after the Second World War, and the one who showed himself to be more open to new directions. […] He was also the ethologist who worked hardest for ethology's coordinated, balanced growth in the 1950s and 1960s'. *Ibid*., pp. 4–5.

[1373] Tinbergen, 'On the Aims and Methods of Ethology'.

questions engage with the various causes of behaviours. In short, the four questions are interested in, respectively, (1) the external and internal factors that brought a behaviour about at a given moment, (2) the ultimate function and value of that behaviour, (3) the innate and environmental factors that led to the ontogenetic development of the behaviour, (4) and the evolutionary factors that led to the phylogenetic development of the behaviour.

Tinbergen's questions have been central to the development of ethology, but they display an inherent limitation. As Roberto Marchesini observes:

> With his *Four Questions*, Niko Tinbergen was the first scholar who addressed the problem of explanation. However, he did not deal with the psychological evaluation of behavior. There is nothing to object to the correctness of Tinbergen's model, except for the fact that it seems to get around the problem, brilliantly avoiding to touch upon the issue of the psychological condition. […] Tinbergen carefully avoids providing explanations about the phenomenology of the proactive condition.[1374]

Because of this limitation – which is somewhat reminiscent of behaviourist perspectives – commentators on Tinbergen's work, among them Gordon Burghardt, have suggested adding a fifth question: the question of subjectivity.[1375] Following their pioneering research in ethology, Tinbergen, Lorenz, and von Frisch received the Nobel Prize in Medicine or Physiology in 1973. Curiously enough, Tinbergen's Nobel lecture did not limit itself to tracing the origins of ethology in his work – or, more accurately, its revival[1376] – but also opened a new medical horizon for ethology: the study and treatment of autism.

While many have observed a sudden shift in Tinbergen's work, others, such as Chloe Silverman and Tinbergen himself, describe a continuity from his work on animals.[1377] Indeed, Tinbergen's work on autism followed from his 'concern about what he called "the human predicament," [and] the success of ethological explanations of human behavior'.[1378] It is noteworthy that '[e]thology had included humans from its start' and that, already in his 1951

[1374] Roberto Marchesini, 'The Desiring Condition of Animality', n.d., accessed 23 November 2025. https://www.academia.edu/101226204/The_Desiring_Condition_of_Animality. This avoidance is evidenced in Tinbergen's early classic, *The Study of Instincts*, which rejects the inclusion of subjective states in ethological studies of behaviour. See Nikolaas Tinbergen, *The Study of Instinct*, Oxford: The Clarendon Press, 1951, p. 4.

[1375] See Gordon M. Burghardt, 'Amending Tinbergen: A Fifth Aim for Ethology', in *Anthropomorphism, Anecdotes, and Animals*, ed. Robert W. Mitchell, Nicholas S. Thompson, and H. Lyn Miles, pp. 254–76, Albany: State University of New York Press, 1997.

[1376] Tinbergen describes 'the old method (1) of "watching and wondering" about behaviour' as one '[his colleagues and he] revived rather than invented'. See Nikolaas Tinbergen, 'Ethology and Stress Diseases', Nobel lecture, 12 December 1973, accessed 23 November 2025, p. 113. https://www.nobelprize.org/uploads/2018/06/tinbergen-lecture.pdf.

[1377] See Silverman, 'Birdwatching'.

[1378] Vicedo, 'The "Disadapted" Animal', p. 192.

book, Tinbergen dedicated a section to 'The Ethological Study of Man', which 'began by pointing out that: "Man is an animal" (Tinbergen, 1951, p. 205)'.[1379]

Niko Tinbergen and Elisabeth Tinbergen developed their 'ethological theory of autism' in two books: *Early Childhood Autism: An Ethological Approach* and *'Autistic' Children: A New Hope for a Cure*.[1380] Drawing on Niko Tinbergen's famous work on the behaviour of herring gulls, the couple developed new observational methods to study human children. What the Tinbergens suggest as methodological and epistemological requirements for the study of autistic behaviour is akin to phenomenological reduction: '[i]ntense, long, repeated "plain" or "simple" observation, guided by a truly inquiring, not prematurely prejudiced state of mind, has to come first'.[1381] This methodology reflects the ethological practice of observing nonhuman animals in their natural habitats over extended periods. Moreover, the call for neutral and empirical observation of autistic children in their natural environment echoes the Tinbergens' conclusion of an environmental aetiology of autistic behaviour.

As Niko Tinbergen readily admits in his acceptance lecture, '[their] work led [them] to conclusions which went against the majority opinion, and [they] formulated proposals about therapies which, with few exceptions, had not so far been tried out'.[1382] Indeed, at the time, autism was increasingly understood as an innate neurodevelopmental condition – as is still the case today – from which followed that only intensive behaviourist therapies would be helpful to cure children. On the contrary, the Tinbergens embraced a psychogenic approach to the genesis of autism, which they described as a stress disease, from which they concluded the benefit of psychoanalytical therapies. Based on their practice of 'baby-watching', they noted a range of '"autismogenic" factors'[1383] that could lead to autistic behaviours, such as gaze avoidance and withdrawal. This idea of theirs has often been perceived as reiterating the classical psychoanalytical blaming of parents, particularly mothers, for their children's autism. Indeed, in many ways, the ethological theory describes autism as a disorder of primary attachment with a child's caretakers.[1384]

Due to this psychogenic model of autistic aetiology, the Tinbergens did not thoroughly engage with the psychiatric classification of autism as a well-defined syndrome. Instead, they offered a looser definition of 'autistic' behaviours, which earned them the criticism of fellow

[1379] *Ibid*., p. 194.
[1380] See Elisabeth A. Tinbergen and Niko Tinbergen, *Early Childhood Autism: An Ethological Approach*, Berlin: Parey, 1972; Niko Tinbergen and Elisabeth A. Tinbergen *'Autistic' Children: New Hope for a Cure*, London: Allen and Unwin, 1983.
[1381] Niko Tinbergen and Elisabeth A. Tinbergen, *'Autistic' Children: New Hope for a Cure*, s.l.: Tinbergen Trust for Autistic Children, 1993, p. 19. This is a re-edition with a new preface by John Richer.
[1382] Tinbergen, 'Ethology and Stress Diseases', p. 115.
[1383] Tinbergen and Tinbergen, *'Autistic' Children*, 1993, p. 140.
[1384] That said, '[t]he Tinbergens did not see themselves as blaming mothers because they considered mothers as victims [of the modern cultural evolution of humans] too'. See Vicedo, 'The "Disadapted" Animal', p. 212.

psychiatrists, such as Lorna Wing and Derek M. Ricks.[1385] Indeed, the Tinbergens believed that many such behavioural traits could be observed in non-autistic children, albeit in less intense forms, so much so that autism could be understood as an extreme form of stress reaction rather than a bounded syndrome. In other words, autism would be nothing other than a functional response to distressing situations. In this way, their theory could be positioned alongside the Intense World Theory of autism examined in Chapter 1, which posits that autistic withdrawal is a functional response to perceived intensity of the surrounding world, even though the ethological theory rests upon a psychoanalytical and psychogenic framing, which contrasts with the more neurology-based approach of the Markrams. Indeed, the Tinbergens believed that '"temporary autism" in normal children was functionally identical to the disorder that Kanner had described [and] that they did not need to spend much time with children with the full syndrome'.[1386]

Therefore, as Marga Vicedo makes clear, the Tinbergens' perspective is uniquely positioned at the interface of biological evolution and cultural evolution, presenting autism as a civilisation disease, or 'what historian of medicine Charles Rosenberg has called the "progress-and-pathology narrative"'.[1387] In this Victorian-inspired approach, pathologies of progress such as autism are described as the 'inevitable price to pay for the benefits of modern civilization'.[1388] These kinds of narratives have persisted in contemporary discourse on autism, appearing, for example, in Simon Baron-Cohen's 'theory of mind' approach and the repeated controversies about vaccines causing autism. More interestingly for my study, this idea is also found in Dawn Prince-Hughes's belief that 'modern life, with its unnatural living conditions, chemicals, broken-down social systems, and chronic stress, overstimulates and assaults the human animal, causing some to manifest the biological and psychological matrix we call autism'.[1389] The autistic primatologist has explicitly mentioned drawing this argument from the Tinbergens.[1390]

Despite their partly environmental aetiological framework and its continued reproduction of the psychoanalytical trope of mother-blaming, the Tinbergens' theory gained increasing popularity in both mainstream and alternative psychological circles – of which John Bowlby, John and Corinne Hutt, and Martha Welch are some of the main representatives[1391] – but also

[1385] See Lorna Wing and Derek M. Ricks, 'The Aetiology of Childhood Autism: A Criticism of the Tinbergens' Ethological Theory', *Psychological Medicine*, vol. 6, no. 4 (1976), pp. 533–54.
[1386] Silverman, 'Birdwatching', p. 184.
[1387] Marga Vicedo, 'Ethopathology and Civilization Diseases: Niko and Elisabeth Tinbergen on Autism', *Canadian Bulletin of Medical History*, vol. 35, no. 1 (2018), p. 1.
[1388] *Ibid*., p. 17.
[1389] Prince-Hughes, *Songs of the Gorilla Nation*, p. 223.
[1390] This was noted in Vicedo, 'Ethopathology', p. 24; Gibbons, 'Neurological Diversity and Environmental (In)Justice', p. 545.
[1391] Silverman, 'Birdwatching'.

in communities of parents of autistic children. They engaged in new observational practices with the help of parents, as well as new kinds of 'do-it-yourself' therapies, such as holding therapy, an approach that was developed by Martha Welch, which consists of imposing 'holding time' (and often eye contact) on children. This practice is now widely rejected by autistic communities due to its potential harms, including several cases of death.[1392] Nonetheless, Chloe Silverman remarks that the ethological theory of autism has had 'political and material significance for the success of parent organizations' lobbying efforts and financial support for research programmes'.[1393]

b) **A Parasitic Reading of the Ethological Theory of Autism**

When reading the Tinbergens' texts on the ethological theory of autism, it is difficult not to perceive a *humane* (or perhaps, *humanitarian*) quality in their approach. Far from the harshly pathologising, mechanising, and reductionistic perspectives of current behaviourist and neurobiological models at work in the science and clinic of autism, the ethological approach they developed feels epistemically generous and expansive. Notably, the ethological theory of autism seems to escape the reduction of neurodivergence to its neurological or genetic components and appears more expansive and inclusive.

Its focus on behaviour is also easily understood in relation to autism. In the context of human neurodivergence, what leads an autistic person to situations of disablement is not so much the perception, by their peers, of their divergent *neurology*, but of their atypical *behavioural style*. What makes a person consider pursuing an autism diagnosis is also their in/ability to, and un/ease with, performing expected behaviours. Similarly, what clinicians attempt to correct while putting autistic people through ABA is, of course, behaviour. In this way, as the Tinbergens highlight, 'the conclusion that a child is autistic is always based primarily on his behaviour peculiarities – as there are in fact almost the only observables'.[1394]

Besides the behaviourist-reductionist tonality of this conclusion, the behaviour-based perspective presented here may at first glance appear more strategic than the neurology-based framework. This is particularly significant given the important problems raised by neurological discourse in the contemporary neurodiversity movement. In this regard, the ethological perspective appears potentially more humanising than the neurological approach. Moreover, it

[1392] See, for example, Jean Mercer, 'International Concerns About Holding Therapy', *Research on Social Work Practice*, vol. 24, no. 2 (2013), pp. 188–91; Autism Science Foundation, 'What Does Not Work', n.d., accessed 23 November 2025. https://autismsciencefoundation.org/beware-of-non-evidence-based-treatments/.
[1393] Silverman, 'Birdwatching', abstract, p. 176.
[1394] Tinbergen and Tinbergen, *'Autistic' Children*, p. 19.

is clear that behavioural perspectives – perhaps even ethological ones – have inspired even mainstream forms of autism research and remain productive today. Indeed, as early as the 1970s, some of the fiercest opponents of the Tinbergens' theory recognised the potential benefit of ethological and behavioural approaches to autism science.[1395]

Given the ease with which it has managed to complicate the 'neurodevelopmental versus environmental' debate about aetiology, and to convince readers of its potential value, the ethological theory of autism benefits from a particular position in the history of scientific autism. Should we therefore understand it as drawing on a *more-than-human* methodology to develop a more *humane* autism clinic? As has been the case throughout this thesis, this is not my conclusion here. Instead, I suggest that the theory offers yet another instance of pathology lite, where humanistic and animal perspectives are mobilised in support of the pathology paradigm, and where humane or humanitarian logics constitute a façade for dehumanising ideas.

It is worth noting that the psychogenic aetiology championed by the Tinbergens has often been described as rooted in an environmental model. However, Marga Vicedo has shown that because of its ethological approach, this theory remains rooted in a deterministic understanding of biological evolution.[1396] In this way, a deterministic approach to biology can be found in the philosophical anthropology that Tinbergen ultimately developed, namely a discourse on human nature derived from natural selection.

As Vicedo notes, while Tinbergen was originally very cautious not to transpose the results ('rather than the methods'[1397]) of ethology from animal species to humans, he eventually crossed the species border because he was concerned about ecological degradation and military human violence, particularly the risk of nuclear destruction. Tinbergen also expressed the desire to purify modern societies of their 'genuine *psychosocial pollution*', of which autistic behaviours were nothing short of a direct 'expression'.[1398] This demonstrates a sense of humanitarian responsibility 'to save humanity' from diseases of civilisation such as autism.[1399]

Tinbergen also used the fact that some autistic people are non-speaking to motivate the application of ethological perspectives to the autistic population, an argument that may appear to rely on a bestialising logic.[1400] It is as if, in the absence of spoken speech, autistic people could not really connect or communicate with other humans and therefore required approaches derived from the animal sciences. In this way, Tinbergen rhetorically presents the autistic as a

[1395] See Wing and Ricks, 'The Aetiology of Childhood Autism'.
[1396] See Vicedo, 'Ethopathology'.
[1397] Tinbergen, cited in Vicedo, 'The "Disadapted" Animal', p. 202.
[1398] Tinbergen and Tinbergen, *'Autistic' Children*, p. 140, emphasis in original.
[1399] Vicedo, 'The "Disadapted" Animal', p. 210.
[1400] *Ibid*., p. 211.

disadapted animal, whose natural evolution has been disrupted by the modern predicament and has subsequently developed an atypical and non-viable behavioural style – a neurodivergence, or, as I will call it in the next section, an *ethological divergence*. Indeed, it is noteworthy that, when he opposes natural evolution and cultural evolution, Tinbergen describes the latter as a 'behavioural evolution'.[1401] Similarly, Tinbergen explains that the human species has turned to mass violence because 'cultural evolution has pushed [it] beyond the limits of [its] adjustability, which have been established by natural selection during human evolution in the ancestral environment'.[1402]

This evolutionary determinism, as Vicedo calls it, enabled Tinbergen to bring humans and animals together through ethological methods and concepts. However, this transferential and transspecies gesture ultimately served to justify the naturalisation of a so-called autistic disadaptation (alongside human military aggression) and its medicalisation. Just like the authors and theories examined in Part I, the Tinbergens' ethological theory casts autism as a symptom of conservatism, violence, and disadaptation in Western societies, which it ultimately seeks to cure.

Indeed, at that time in his career, Tinbergen was now envisioning ethology as an applied science tasked with 'figur[ing] out how far the tracks of biological and cultural evolution could continue to *diverge* without endangering human survival'.[1403] In the ethological theory, humanimality (as a reminder, human animality) operates as a technology of speciation through which the human species can be reduced to a monolithic understanding of neurotypicality. In other words, neurodivergence and ethodivergence are cast as dangers to human civilisation because they represent evolutionary and behavioural deviations from an ancestral nature from which autism is conveniently erased. In the face of these allegedly 'new' threats, the ethological 'researcher would first have "to 'peel off' these cultural variations and reconstruct the behaviour and the environment of our precultural ancestors"'.[1404]

In this technology of speciation, for once, humanity is not opposed to animality but associated with it. This justifies a naturalised and essentialist conception of species typicality. In this framework, ethology as a scientific method is indeed called upon to uncover 'the "deeper structure" [of humanity], the ancient roots of human behavior'.[1405] More troublingly, as an

[1401] *Ibid*., p. 206.
[1402] *Ibid*., p. 202.
[1403] *Ibid*., emphasis mine.
[1404] *Ibid*., p. 207.
[1405] Nikolaas Tinbergen, 'Functional Ethology and the Human Sciences', *Proceedings of the Royal Society of London B*., vol. 182 (1972), p. 400. Condensed version available in Niko Tinbergen, *The Animal in its World: Explorations of an Ethologist, 1932–1972,* Cambridge: Harvard University Press, 1973, cited in Vicedo, 'The "Disadapted" Animal', p. 208.

applied science, ethology is also tasked with a mission of '"bio-engineering" for the purpose of restoring our adaptedness, or rather of re-establishing adaptedness at a new level'.[1406]

To sketch out a parasitic reading of the ethological theory of autism, it may be useful to ask the following question: could it be that Niko Tinbergen's crusade for eliminating the developmental conditions of autism materialises and crystallises his ambivalent relationship with (his own) neurodivergence? Indeed, two elements suggest that autism may have been part of the Tinbergens' personal life: the couple reported autistic behaviour in one of their children, as I have mentioned, and Niko, who experienced recurrent episodes of depression, expressed feelings of sympathy for autistic children due to this neurodivergence of his own.[1407] While the practice of retroactive diagnosis may not be relevant here, it is striking that, just like with Uexküll, Goldstein, and Gehlen, Tinbergen's pathologising view of autism trafficked in tropes of human and animal nature at the same time as it encapsulated some of the core tensions that permeated modern Western culture, such as troubles with dis/harmony, dis/ease, dis/order, and now dis/adaptation. In this way, without calling for such extreme measures, Tinbergen's perspective, with its eugenic undertones, is reminiscent of the fascist history of European modernity.

Today, as psychoanalysis has become fully separate from the neurocognitive and biomedical paradigm in psychological research, ethological methods are rarely used or claimed in psychiatry and psychology. Marginally, a few scientists have proposed reintroducing an ethological framework to either complement or counterbalance the dominant methodologies used in psychiatry, including in relation to autism. This is the case of Alfonso Troisi, who argues that:

> In fact, even though the biomedical approach is now dominant in the psychiatric arena, the rapidly increasing precision and sophistication in neurobiological techniques have not been accompanied by comparable advances in the observation and measurement of behavioral variables. The very reason for the inadequacy of behavior assessment is that psychiatry lacks a methodological framework for studying behavior. Ethology can provide such a framework.[1408]

Troisi's proposal signals the potential for new ethological frameworks to contribute to biomedical research, for example, in animal models of autism. Rather than signalling a shift towards neurodiversity-affirming perspectives, this perspective should inspire concern for new forms of (lite) pathologisation and medicalisation. When it comes to autism specifically,

[1406] Tinbergen, 'Functional Ethology', p. 407, cited in *Ibid*., p. 209.
[1407] See Niko Tinbergen to John Bowlby, 1 June 1975, folder PP/BOW/B.3/22, John Bowlby Papers, Western Manuscripts and Archives, London: Wellcome Library, cited in *Ibid*., p. 212.
[1408] Alfonso Troisi, 'Ethological Research in Clinical Psychiatry: The Study of Nonverbal Behavior During Interviews', *Neuroscience & Biobehavioral Reviews*, vol. 23, no. 7 (1999), p. 906.

Pedersen and Schelde describe the potential contributions of ethological perspectives. They observe that

> [e]thological investigations on autistic behavior have been focused on systematic registrations, i.e., recordings of preselected well-defined behaviors based on a systematic sampling schedule, quantitative measurements of the frequencies or relative durations of the behaviors, and descriptions of behavior at a "molecular" level, i.e., based on detailed behavioral elements, unlike investigations based on rating scales aiming at measurement of the qualities of the children's general or more compound behavior.[1409]

While the call to develop an ethological psychiatry was particularly strong in the 1990s,[1410] it has reemerged in more recent years, for example, in the work of Pegoraro et al. on autism.[1411] The authors have developed new ethograms of autistic behaviour inspired by the contributions of Troisi and the Tinbergens. The objectifying logic at play in these descriptions of ethological research on autism is particularly striking. It seems to operate as hegemonic technologies of speciation, not to mention the large gender imbalance and emphasis on children (to the exclusion of autistic adults) in their study.

In animal models and ethological perspectives, autistic behaviour appeared only as a metaphor or analogy. In the next subsection, I examine the existing discourse on autism in nonhuman animals in the neurodiversity movement and veterinary psychiatry, seeking to reassess the possibility of animal neurodivergence.

3. Animal Autism in the Neurodiversity Movement and Animal Psychiatry

In Chapter 4, I have argued for including nonhuman animals in the scope of neurodiversity. Given that most animal species are endowed with nervous systems, why should we exclude them from a concept which, in the first instance, refers to neurological makeup? Yet while it is clear that different species have different neurocognitive constitutions, does this imply that neurodivergence exists in other animal species? What about autism?

[1409] J. Pedersen and Tyge Schelde, 'Behavioral Aspects of Infantile Autism: An Ethological Description', *European Child & Adolescent Psychiatry*, vol. 6 (1997), p. 96.
[1410] See for example Tyge Schelde, 'Ethological Research in Psychiatry', *Ethology and Sociobiology*, vol. 14 (1994), pp. 349–68.
[1411] Luiz F. L. Pegoraro, Eleonore Z. F. Setz, and Paulo Dalgalarrondo, 'Ethological Approach to Autism Spectrum Disorders', *Evolutionary Psychology*, vol. 12, no. 1 (2014), pp. 223–44.

a) **Are All Cats Autistic?**

A popular phrase in neurodivergent communities goes like this: 'Cats are autistic, dogs have ADHD.'[1412] This phrase, which has largely circulated on social media, testifies to a widespread sentiment among neurodivergent people: the sensation that nonhuman animals display or reflect neurodivergent traits. How should this saying be understood? What kind of relationship between neurodivergent humans and nonhuman animals does it suggest?

In some instances, the phrase is used as a metaphor for autism, with cats becoming a tool for the dissemination of knowledge on neurodivergence. For example, in her book *All Cats Are on the Autism Spectrum*, Kathy Hoopmann uses our feline companions to convey simple explanations about autism.[1413] The book seems to be intended as a pedagogical tool for autistic people, particularly children and teenagers. Although she compares typical cat behaviours with human autistic behaviours, Hoopman mobilises cats purely metaphorically. Indeed, at no place in the book does she seriously engage with the possibility that (some) cats are *really* autistic. There are also no real cats to be found in this book, only anthropomorphic representations.

In this way, the book mostly seeks to shed light on what autism looks like in humans. It reproduces the gesture we found in animal models of autism, in which nonhuman animals were reduced to constitutive others, helping us establish and disseminate knowledge on human autism while, paradoxically, being excluded from the category. Whereas, in animal models, real animals were involved, the 'autistic' label was absent, conveniently substituted with 'autistic-like'. Conversely, in *All Cats Are on the Autism Spectrum*, the label is indeed mobilised, but animals are reduced to metaphors. A reductive, culturally inflected idea of species-typical feline ethology – with its tendency towards independence and its need for predictability, among others – is abstracted from the biological needs and evolutionary history of cats and reframed through a human gaze. It is never explained why cats favour predictability and remain largely independent beings, nor how domestication may have influenced these ethological dispositions.

Moreover, while autism constitutes a neurodivergence and a neurominority *within* the human species, the idea that 'all cats are autistic' relies on a generalisation. What would it mean for a whole species to be autistic, especially given that autism is usually conceptualised as intra-species divergence, and how are we to understand this hypothesis? Would this mean that, at the species level, autism is (neuro)typical for cats? Or should we still gauge it in relation to humanity and view it as a form of neurodivergence? In fact, this very generalisation may well

[1412] One iteration of this phrase can be found in Elena Filipczyk's yet unpublished 'All Cats Are Autistic, All Caged Birds Are Prisoners? Autistic Joy, Kinship with Animals, and the Ethics of Affinity'.
[1413] Kathy Hoopman, *All Cats Are on the Autism Spectrum*, London and Philadelphia: Jessica Kingsley Publishers, 2020.

constitute a problem. Provided that autism really exists in other species, there are few reasons to believe that it would suddenly have become ubiquitous only in felines while remaining marginal in humans. This kind of discourse may potentially lead to an unintended effect, namely, a sort of fetishistic treatment through which cats can be *humanised* only insofar as they disappear as actual *animals*.

And yet, beyond Hoopmann's famous book, it is not uncommon for autistic humans to truly believe that there is something autistic about cats. In these cases, the saying 'all cats are autistic' no longer acts as a metaphor but rather constitutes an ontological claim about felinity. Yet again, such claims seem to operate along lines of human – all too human – representations. When we suggest that there is something autistic about cats, our anthropomorphic gesture tends to function as a way of bonding with other autistic humans around a shared love for felines. It is, surely, also a way of expressing our affinity with cats themselves, and perhaps there is a path to a(û)nimal kinship in this gesture.

Indeed, do we really need to rely on the naturalised understanding of autism as a psychiatric syndrome or neurological structure to identify ourselves and others as members of our community? Could it be, with Deleuzian-Spinozan ethology – as briefly described in Chapter 1 – that autism is not an organic structure but a repertoire of *affects* that materialise in our relationships with each other and are, therefore, virtually unbounded by the borders between individual organisms? Besides, with what is sometimes colloquially called 'autism radar' (or 'autdar', which echoes the well-known gaydar from queer communities), there is an important sense in which informal peer diagnosis relies on a holistic and intuitive *sense* for autistic traits. The ease with which some autistic people recognise others as fellow autistics certainly ensues from a long-term commitment to learning about autism in oneself and with others, a practice that may lead to a deep-tuned intuition for these kinds of things. Could there be something productive in expanding this intuitive framework to nonhuman animals?

While there may certainly be useful effects to be drawn from this approach, it may also carry a potential for harm. Indeed, to say that *some* cats might be autistic is not the same as saying that *all* cats are autistic. The autistic community has long learned to remain wary of the notion that 'we are all a little autistic anyway', a phrase that is often mobilised to negate someone's autism or deny them reasonable adjustments. Similarly, it is not clear that describing a whole species as autistic really helps us understand it better or strengthen our bonds with our nonhuman companions, especially when that means erasing their specificities.

There is indeed a risk in comparing behaviours performed through similar signifiers – such as independence and repetition – without considering the needs they aim to satisfy and the specific situations to which they respond. Part of the discourse crystallised by the figure 'cats are autistic' is based on anthropomorphic projections, but what if there was something within

the behavioural repertoire of (some) cats which could be described as autistic? Given that neurodiversity extends beyond the human, there is no reason to exclude this possibility. Is there a way to engage with animal autism that does not rest on reducing animals to species-typical traits and anthropomorphic projection? With the non-innocence of this endeavour in mind, we might choose to approach the 'cats are autistic' figure in speculative ways, but also more responsibly.

What would it entail to hypothesise that something in the respective ethologies of cats and humans and in our histories of becoming-with each other over thousands of years, made us adopt modes of being that could be described as autistic? What would it entail for cats to be autistic in an age when autism is restrictively governed by the authority of psychiatry and founded upon the idea of a neurological substrate of autism? Is 'autistic' something cats could become over the long history of their domestication, or something acquired in the situated and reiterated encounter with autistic humans? These questions exceed the scope of this chapter, but I sketch them here to highlight the conceptual horizons they open.

b) **Autism-Like and HsHa in Animal Psychiatry**

The question of animal neurodivergence has been increasingly raised within the growing field of animal psychiatry. For example, phrases like 'ASD-like' or 'ADHD-like', which we first observed in the context of animal models of autism, are also mobilised in animal psychiatry, where they are taken to signify neurodivergence – or, following the pathology paradigm, psychiatric disorders – in nonhuman animals.[1414] In this context, scientists can certainly be described as being interested in the affective states and emotional complexity of nonhuman animals, which, as we saw, was not equally applicable to autism scientists.

However, just as in autism science, the decision to describe these conditions as autism-like or ADHD-like rather than autism or ADHD proper can be explained by a concern with anthropomorphism. Indeed, animal psychiatrists seem uncomfortable with the idea of comparing autistic and ADHD humans with nonhuman animals. This might be a good thing: doing so avoids unintentional forms of dehumanisation and harmful situations of disanimality. This also prevents projecting human traits and expectations onto other species. In this way, the ethological specificity of felines and canids is respected. At the same time, this emphasis on species differences might risk reproducing the human/animal binary and human

[1414] Ángela González-Martínez, Susana Muñiz de Miguel, and Francisco Javier Diéguez, 'New Advances in Attention-Deficit/Hyperactivity Disorder-Like Dogs', *Animals: An Open Access Journal from MDPI*, vol. 14, no. 14 (2024), p. 2067.

exceptionalism. Indeed, by describing their patients and objects of inquiry as autistic-like or ADHD-like, are these psychiatrists not reducing them to a degraded position? Comparison to humans is not avoided for animals; its harmful effects are only potentially deactivated for autistic and ADHD humans, who thus get to enjoy a position of relative privilege in psychiatric classifications. In this way, diagnoses like autism-like and ADHD-like can also appear to operate as technologies of speciation.

In other instances, animal psychiatrists have developed new terms and diagnoses that are uniquely positioned to describe nonhuman animals. For example, behaviourist veterinarian Claude Béata explains that some cats and dogs are Hypersensitive-Hyperactive (HsHa).[1415] The HsHa diagnosis, which indirectly evokes autism and ADHD, is characterised by a loss of self-control in areas such as locomotion, biting, and scratching. In this condition, cats may behave clumsily, which, as is well known, is particularly atypical for this feline species. Similarly, the suggested accommodations for HsHa individuals are similar to those recommended for autistic and ADHD humans, such as providing consistent routines, making environments safe and predictable, toning down stimulation, or sometimes enriching the environment to channel energy into positive activities. Yet the behaviours displayed by these animals differ from those found in autistic and ADHD humans: because of the predatory nature of felines, HsHa cats indeed behave in ways that can be perceived by humans as more aggressive than is typical for cats, for instance, by repeatedly biting and scratching. This suggests that, while autism, ADHD, and HsHa rely on similar behavioural logics across species lines, they materialise through different behavioural sequences.

This may be explained by inherited species-typical ethological dispositions and preferences. In this way, Béata points to the fundamental asociality of cats, a species in which individuals may be willing to partake in one-to-one bonds with chosen individuals but do not experience a need for relation *per se*. Cats, he reminds us, are not necessarily a social species in the same way humans are. He explains that '[f]or cats, because the relationship is not compulsory, when it is endured or uncomfortable, it is a significant source of undesirable behaviour and pathological conditions'.[1416] Beyond the use of pathologising language, which raises ethical concerns, it may be worth noting the relevance of the distinction between social and asocial species. Precisely, while (perceived) asociality is atypical in the human species, it is the norm in cats. This makes asociality a neurodivergent trait in autistic humans, but not in felines, whether they may be autistic or not. While the (perceived) asociality of cats may echo

[1415] Claude Béata, *La Folie des chats*, Paris: Odile Jacob, 2022, p. 19. The title of Béata's book plays on the dual meaning of 'folie', which, in French, signifies both cat craze and cat madness. See also Miloa, 'HS-HA', n.d., accessed 25 November 2025. https://miloa.eu/en/glossary/diseases/hs-ha/.
[1416] Béata, *La Folie des chats*, p. 91. I translated this and all later citations of this reference from French.

that of autistic humans and generate a sense of affinity and kinship, these phenomena reflect different ethological logics.

Similarly, Béata explains that whereas dogs answer our calls more readily, cats remain independent and spend their time freely. To enjoy some cuddle time with our cats, the best solution might thus be 'to schedule an appointment' with them, because cats love routines.[1417] Routines bring predictability, reduce stress levels, and help cats feel secure. Far from revealing an autistic nature, this paradoxical need for both autonomy and predictability might come from the cat's dual condition as both prey and predator. As prey, cats are constantly alert, which makes them 'naturally' hypersensitive to, and hyperaware of, their surroundings, but also generates a need for security. As predators, cats behave in ways humans may find 'wild' and 'asocial' and may spend hours alone hunting their prey.

Autistic humans also display a need for predictability, but, according to the Intense World Theory, this should be understood as a protective response to a world we tend to perceive and process more intensely. Some autistic people also present a strong need for autonomy and may display asocial tendencies, but, according to the theory of monotropism, this should be related to their tendency to hyperfocus exclusively on selected objects of interest. Surely, the ethological factors behind these autistic traits differ from those that explain cat behaviour, even though the similarity raises important and interesting questions.

At the evolutionary level, Béata reminds us that the cat-human relationship began only when humans became settled farmers and developed larger and more complex societies. The cat's 'presence is a product of the radical change in the lifestyle of humans, who have learnt to accommodate the presence of a feline beside them despite the absence of mutual trust'.[1418] Interestingly, then, the time when humans learned to opt for a routine-based social order and institutions, which allowed us to organise society more efficiently, is also when our relationship with cats began, leading both species to co-domesticate. Cats helped humans keep rodents out of grain stores while humans guaranteed cats a safe environment and consistent access to food.[1419] Could it be, then, that despite the different ethological and biological reasons for the autistic behaviours of humans and the autistic-like behaviours of cats, part of the answer to this similarity lies in the contact zone that cats and humans have been maintaining for about ten thousand years?

Answering such a difficult question is beyond the scope of this thesis. Here, I focus primarily on the terminological discussion of the HsHa diagnosis. It is worth asking why existing categories like autism and ADHD are being replaced by new ones in nonhuman

[1417] *Ibid*., p. 147.
[1418] *Ibid.*, p. 25.
[1419] *Ibid*.

contexts, and whether this reflects a speciesist attitude or a laudable attempt to avoid overdetermined comparisons between human ethology and feline or canine ethology. Whatever the case may be, animal psychiatrists show more interest in the actual agency and well-being of their patients and objects of inquiry than autism scientists did with their model animals. But this example raises new questions that are critical to understanding the intersection of neurodiversity and animality: is paying heed to animal agency alone enough to avoid pathologising animality and neurodivergence? But also: While autistic and ADHD humans want to be accepted rather than cured, can we simply apply the neurodiversity paradigm to nonhuman animals? Further research could map the complexities of animal psychiatry as a scientific field where neurodivergence and animality meet.

Ironically, animal neurodivergence seems to be getting a better shot at recognition in the medical sciences than in neurodiversity studies or the neurodiversity movement, where it is often reduced to a metaphor, analogy, or truism. But given the widely pathologising and dehumanising perspectives on autism developed by psychiatrists and scientists, why should we give them priority in defining animal neurodivergence? In this regard, Béata has expressed the opinion that ethology is insufficient to understand and, most importantly, treat HsHa and other conditions in animals. To justify this claim, he offers a telling analogy:

> [t]o achieve this, one piece of the puzzle is missing: veterinary schools need to open their doors to proper teaching of psychiatry and not limit themselves, as is still the case today, to teaching ethology, rather like a medical school that did not teach mental pathology but confined itself to sociology, an interesting science but one that is not primarily relevant to doctors.[1420]

By comparing ethology to sociology and psychiatry to medicine, Béata emphasises a supposedly empirical nature of ethology, which is called upon to offer descriptions of reality. Animal psychiatry, on the contrary, is expected to provide medical perspectives. Given the very concrete therapeutic and eugenic leanings I have noted in ethology's history with the Tinbergens, alongside its normative function as a source of potentially harmful technologies of speciation, it is not clear that this binary is as clear-cut as Béata makes it seem. Nonetheless, we might still benefit from mobilising ethology to examine autism and other forms of behavioural divergence in nonhuman animals. In the next section, I offer a philosophical reframing of ethology to substantiate my call for a more-than-human and more-than-neurological turn in neurodiversity studies.

[1420] *Ibid*., p. 195.

II — Reclaiming Behaviour, Queering Ethology: Towards Ethodiversity

Given ethology's troubling history, why should we consider it as an alternative starting point for the more-than-human and more-than-neurological turn in neurodiversity studies? As we will see, there exists a diversity of philosophical and epistemological perspectives on ethology that can help us overcome some of the core limitations mentioned above. Therefore, this section aims to articulate a behavioural approach to autism that does not adhere to the principles of behaviourism, mechanicism, or reductionism. The conception of behaviour developed below recognises the *a priori* dimension of embodied behavioural styles while acknowledging agency and contingency. This is key to thinking autism beyond both neurological and behavioural reductionisms.

To do so, I first introduce ethodiversity, a more-than-human and more-than-neurological, antispeciesist-posthumanist framework for neurodiversity that relies on a philosophical (and particularly phenomenological and critical) conception of ethology. Based on this perspective, I develop the framework of ethodiversity, which includes neurodiversity without being limited to it. I examine some of the conceptual problems raised by the idea of ethodivergence in our world of intense multispecies relationality and anthropocenic intervention and settle on a conception that is at once evolutionary and biopolitical.

On this ground, I introduce the concept and framework of queer ethology as a way to trouble – that is, to subversively reclaim and reframe – traditional ethological concepts like 'species' and 'speciation', but also 'ethology' itself. Drawing on Nick Walker and M. Remi Yergeau, I suggest a more-than-human and more-than-neurological turn in neuroqueer theory, in which somaticity is no longer understood as a fundamental human quality but rather as an animal phenomenon. I apply this new framework to a much-commented video by late autistic activist Mel Baggs about autistic stimming, which I describe as a queersomatic practice.

I then return to the animal models of autism to envision new forms of 'a(û)nimal conspiracies' (to borrow Vargas García's term again) rooted in ethodivergence. I demonstrate that, while it might sometimes be useful to extend the concept of neurokinship beyond species borders, such a neurocentric approach might risk conditioning care for and allyship with animals on their bio-behavioural proximity to humans. Instead, I offer the framework of ethodivergent solidarity, a political perspective in which coalitions and kinship are developed based on the shared experience of, and resistance to, ethonormativity.

Finally, I draw on Roberto Marchesini's philosophical ethology to examine the confluence of autism and animality in the politics of epiphany and therianthropy. I show that,

as an ethology, autism is not an essential nature, but rather a process of becoming. It relies on sudden realisations – namely, epiphanies – that are often directly entangled with the existential revelations of animal forms of life. Drawing on insights from the therianthropy movement, I demonstrate that therianthropes can teach us important lessons in resisting ethonormativity.

1. Ethodiversity: A More-Than-Human and More-Than-Neurological Framework for Neurodiversity

a) Introduction: From Scientific Ethology to Philosophical Ethology

Just as the neurosciences, ethology encompasses a diversity of epistemological regimes, each of which presents distinct conceptual and political challenges. This diversity can be linked to the very genesis of ethology, which some trace back to the nineteenth century. Indeed, Charles Darwin is often cited as a forefather of ethology, particularly for his proto-ethological work, such as *The Expression of the Emotions in Man and Animals* (1872). While Darwin's conception of evolution has often been framed in mechanistic and reductionist terms throughout history, his work on animal emotions reveals a profound attention to the subjective lives of animals.

Later, Jakob von Uexküll, with whom I started this thesis (see Chapter 1), developed a theoretical biology that can also be described as proto-ethological. In his *Foray into the Worlds of Animals and Humans* (1934), Uexküll developed one of the first theories to recognise the subjectivity of animals within modern biology.[1421] Uexküll's work, which decisively contributed to theoretical biology, has paved the way for future engagements with ethology beyond the scientific domain. Indeed, new perspectives in ethology have been developed over the past decades, sometimes attached to the growing field of philosophical ethology.

Ethological perspectives have inspired thinkers throughout the twentieth century, such as Maurice Merleau-Ponty. With his phenomenological approach, Merleau-Ponty has provided us with useful tools to engage with behaviour beyond behaviourism. For instance, in *The Structure of Behaviour* (1963), he famously redefined behaviour as a phenomenon that emerges from particular situations – specifically, from environmental or ecological worlds constituted by embodied subjects, known as *Umwelten*.[1422]

[1421] That said, as we saw in Chapter 1, this conception of subjectivity was minimal, which explains the praise it received from behaviourists.
[1422] See Merleau-Ponty, *The Structure of Behavior*.

In phenomenological perspectives, behaviour is no longer understood as a mechanistic succession of observable movements. Instead, Husserl explains that behaviour possesses 'a physical side that indicates something psychic appresentatively'.[1423] By adopting a phenomenological approach to ethology, I argue that behaviour, which encompasses both external observations and internal experiences, can be reclaimed beyond the confines of behaviourism and neuroreductionism. In this phenomenological ethology – sometimes described as an etho-phenomenology – behaviour also allows us to redirect our attention away from the fixity and simplicity of neuroreductionism and toward the contingency and complexity of lifeworlds. An example of this approach can be found in Florence Burgat's major contributions to animal phenomenology, which I have drawn from repeatedly.

In a very different philosophical context, Deleuze and Guattari have described (and drawn on) Baruch Spinoza's *Ethics* as an ethology. This helped them develop their own approach to ethology. Deleuzo-Guattarian ethology, as I already mentioned in Chapter 1, refers to a study of affects, understood as the capacities that bodies have to affect others and to be affected by them. Affective ethology, by extension, refers to the question 'What can a body do?', a question that is not asked in the universal mode of transcendental categories, but in the situated sense of immanent becomings. Ethology, in this framework, refers to the entanglements of various bodies that coexist and mutually affect one another.

Following Gilles Deleuze, Félix Guattari, and Jakob von Uexküll, Brett Buchanan speaks of *onto-ethologies*:

> Uexküll's particular perspective into the natural world comes to bear on how we think of the reality of the world as one grounded in the relation between living being and *Umwelt*. We have here the beginnings of an onto-ethology: an ontological elucidation of "what is" via the active behavior of living beings. Our glimpse into what it means to be an animal is arrived at through these relations.[1424]

Onto-ethology, therefore, refers to a framework in which behaviour participates in our understanding of ontology as an analytical category, but also transforms reality itself. Similarly, Matthew Calarco has expanded Guattari's *The Three Ecologies* by speaking of *The Three Ethologies*: mental, social, and environmental.[1425] Calarco explains that 'mental ethology […] investigates the various practices that form and reform the character and subjective constitution of an individual animal, whether human or more than human'.[1426] Social ethology, then, refers

[1423] Edmund Husserl, *Cartesian Meditations*, Dordrecht: Kluwer Academic Publishers, 1999, p. 114/144.
[1424] Buchanan, *Onto-Ethologies*, p. 37. Buchanan explains that he borrows the concept from Eric Alliez but draws it in a direct and expanded direction. See *Ibid*., pp. 191–2.
[1425] Matthew Calarco, *The Three Ethologies: A Positive Vision for Rebuilding Human-Animal Relationships*, Chicago: The University of Chicago Press, 2024.
[1426] *Ibid*., p. 5.

to ‘the careful study and consideration of what constitutes social life (1) among animals as well as (2) between human beings and animals’.[1427] Finally, environmental ethology ‘undertakes an analysis of human-animal relations within their environmental milieu’.[1428]

In this approach, ethology is expanded to address a range of phenomena from subject constitution and social life within animal species to human-animal relationships within given environments, all sites where behaviour and somatic practice are thought to play a decisive role. These three approaches may be newly articulated in Calarco’s book, but they draw on existing ideas linked to the concept of ‘ēthos’, which comes from ancient Greek. Calarco notes that, alongside mental, social, and environmental ethologies, the term *ēthos* has referred, respectively, to ‘the formed character or habituated dispositions of an individual’,[1429] ‘custom, in the sense of the shared practices and relations that constitute a given social order’,[1430] and ‘the typical haunts or dwelling places of animals and human beings’.[1431]

This expansive, antireductionist approach to ethology tends to foster a more profound (re)connection to animality, both inside and outside oneself. As Calarco explains,

> [i]t is not surprising that ethologists who study animal behavior with animals’ subjective lives and perspectives firmly in mind often come to empathize with these animals and begin to see them as individuals who should be cared for and respected. Cognitive ethologist Marc Bekoff argues that the field of ethology should unabashedly affirm this affective disposition for animals and, in the process, should become a kind of “deep” ethology.[1432]

Such a *deep ethology* comes with political implications that might not be restricted to the ways ethology has most often been mobilised to this day. In this regard, Calarco suggests that ‘contemporary pro-animal discourse and activism might be helpfully rearticulated as an ethology’.[1433] This is not to say, he concedes, that pro-animal discourse does not already engage with ethology, but that ‘engagements with ethology in this context have often been limited to employing its scientific findings to debunk outmoded pictures of animal behavior and cognition’.[1434] As this chapter has already shown, calling on ethology to back antispeciesist arguments might sometimes risk reproducing speciesist, ableist, and neuronormative perspectives, with ideas of species specificity and species typicality serving to morally justify

[1427] *Ibid*.
[1428] *Ibid*.
[1429] *Ibid*.
[1430] *Ibid*.
[1431] *Ibid*. For the sake of accessibility, I will remove the accent in ‘ethos’ in future iterations. For more on the origins and meanings of the concept of ethos, see Charles Chamberlain, ‘From “Haunts” to “Character”: The Meaning of Ēthos and Its Relation to Ethics’, *Helios*, vol. 11 (1984), pp. 97–108.
[1432] Calarco, *The Three Ethologies*, p. 7.
[1433] *Ibid*., p. 4.
[1434] *Ibid*.

discriminatory treatment. These limitations demonstrate the need for a philosophical ethology to complement (and, sometimes, replace) scientific ethology as a foundation for our ethico-political agenda.

The framework of ethodiversity and ethodivergence in which Part II's argument culminates is therefore grounded in a philosophical ethology. This is a kind of approach that has been usefully developed before, for example, by Vinciane Despret[1435] and Roberto Marchesini,[1436] who have both sought to examine animal subjectivity and animal ontology. Despret's perspectives have been mobilised repeatedly throughout the previous chapters and will reappear below in relation to the politics of animal models. Marchesini's work, then, rearticulates classics from the philosophy of anthropology, ethology, and biology to develop a new, posthumanist understanding of life and animality (see subsection 2.4).

In a recent publication co-authored with Marco Celentano, Marchesini has developed the notion of critical ethology, which can bring helpful insights for my project. For Marchesini and Celentano, 'critical ethology' refers to 'a critical (and self-critical) integration of […] two scientific traditions', namely 'philosophical reflection and ethological research'.[1437] Beyond the separation between the humanities and the life sciences, they envision a philosophical ethology (which might also be described as a 'philosophy of ethology'[1438]) that bridges this traditional gap. In my eyes, the concept of critical ethology may also be productively understood as a strategy for engaging with ethology, namely a practice of cautious and subversive reclamation. Specifically, I borrow the concept to describe a critical approach where ethology and ethological concepts, such as species concepts, are at once mobilised and interrogated.

I suggest that philosophical, phenomenological, and critical approaches to ethology can help us develop a more-than-human and more-than-neurological framework for neurodiversity studies. In this approach, neurology no longer conveniently operates as the locus and explanation of behaviour, which, as we have seen, tends to take reductionist, essentialist, and identitarian forms. As we know, psychogenic models of autistic aetiology have largely fallen out of favour, making it increasingly unthinkable to discuss autism without considering neurobiological data. However, considering the challenges presented by neuroreductionism specifically (see Chapter 5), we might benefit from a third way between environmentalist views – whether behaviourist or psychoanalytical – and neuroreductionist ones. While the aetiology of autism is largely understood to be neurogenic, an ethological approach can help us emphasise

[1435] See Brett Buchanan, Matthew Chrulew, and Jeffrey Bussolini, *The Philosophical Ethology of Vinciane Despret*, London and New York: Routledge, 2019.
[1436] Jeffrey Bussolini, Brett Buchanan, and Matthew Chrulew, *The Philosophical Ethology of Roberto Marchesini*, London and New York: Routledge, 2019.
[1437] Roberto Marchesini and Marco Celentano, *Critical Ethology and Post-anthropocentric Ethics: Beyond the Separation Between Humanities and Life Sciences*, Cham: Springer, 2021, p. v.
[1438] *Ibid*.

the behavioural and somatic nature of neurodivergence. At stake is the crucial reclamation and reframing of behaviour.

As I have shown before, the centrality of behaviour to any serious engagement with neurodivergence is easily justified: it is not so much the observation of a different neurology that leads neurotypicals and society to marginalise and exclude neurodivergent individuals, but rather the observation of the latter's distinct behaviours and the unique ways in which they exist in the world. Similarly, people often start wondering whether they might be neurodivergent based on the observation that they *behave* and *exist* differently from others, or that they struggle to perform socially expected behaviours (such as eye contact, small talk, etc.).

For this reason, I am not suggesting completely replacing neurology with ethology, as if one were inherently more innocent than the other. While we will likely continue to use neurological discourse, the ethological perspective allows us to overcome the limitations of anthropocentrism and neurocentrism. To this end, I propose to queer some of the core concepts of the discipline, such as 'behaviour', 'ethos', or 'ethology' itself, which should enable more generative and affirmative potentials to develop.

In this way, I follow Calarco in envisioning a new kind of ethology: 'Here I suggest a much broader understanding of what is involved in both doing and applying ethology, starting with a closer look at the term ethology itself'.[1439] He adds that '[t]here is […] no reason to limit ourselves to this straightforward understanding of ethology as a chiefly scientific practice'.[1440] Similarly, in this section, I offer a philosophical reframing of ethology, which should no longer refer only to the scientific discourse on (hum)animal behaviour, but also to the behaviours themselves.

b) **Ethodiversity, Ethodivergence, and the Politics of Ethos**

In this context, I introduce the concept of ethodiversity, short for ethological diversity, which refers to the intra- and interspecific variations and differences in behavioural or existential styles in (human and nonhuman) animals. By extension, I propose the concept of ethodivergence to refer to lasting ways of being and behaving that depart from the behavioural patterns (1) dominant in the species, (2) in the ecological and social milieu, and/or (3) imposed by ethonormativity. Just like ethodiversity, ethodivergence is a fundamentally animal phenomenon. This zoocentric perspective relies on the idea that animal-being serves as the ontological foundation for behavioural diversity, but also for neurodiversity and

[1439] Calarco, *The Three Ethologies*, p. 4.
[1440] *Ibid*.

neurodivergence. It relies on phenomenological approaches to animality, which demonstrate the unique positionality of animals in the realm of the living. While some have suggested extending ethology to all living beings, which presupposes extending the concept of behaviour beyond the animal realm, this is not the perspective I embrace here.

The concepts of ethodiversity and ethodivergence encompass biological (including traditional ethological) needs, behavioural patterns, existential orientations, affects, as well as inter- and intraspecific relationality. As such, they refuse to separate the innate from the acquired or the inside from the outside. Different species exhibit distinct ways of being and behaving, and these differences also occur within species. In fact, like neurodiversity, these differences can also be found at the individual level. As Judy Singer explained, 'no two [nervous systems] can ever be exactly alike due to the influence of environmental factors'.[1441]

This is evident in Frank Klein's early critique of ABA, which suggests that trying to teach autistic people to behave like allistic people is like trying to teach elephants to behave like armadillos. Klein's animal metaphor helps me clarify my argument about intraspecific ethodiversity and therefore deserves quoting at length:

> [Y]ou cannot take the "elephant" out of an elephant – no therapy, no training, no drug, no chelation, no supplement, no special diet is going to make an elephant into anything other than what he is. The same is true of autistics. […] The big problem with autistics is that we look like [neurotypical] people. No one mistakes the elephant for an armadillo – they look too different. No one would ever try to teach an elephant to roll himself into a ball when he senses danger – that is something that armadillos do. But what if armadillos looked like elephants, and an elephant was born into a family of armadillos? Even when it became apparent that the elephant behaved unlike an armadillo, the armadillos would be tempted to see the un-armadillo-like behaviors as a disease, a disorder... something to be cured. Perhaps the armadillos would try to "teach" the elephant to behave like an armadillo. From the perspective of the armadillos, the elephant would be healing, improving, or recovering, if he began to act more like an armadillo. This would be natural to them, because to them, being an elephant does not imply some kind of intrinsic difference that should be respected; it would be nothing but a bizarre set of behaviors, and remediating those behaviors with behavioral training seems entirely rational. That is exactly the same dynamic we see in autistics with [neurotypical] parents. They see a child that looks like they do. The only thing that makes this child unacceptable to them is his behaviors. As such, it seems rational to use ABA or other behavioral training techniques to fix those behaviors. And when they do so, they make the same mistake as the fictional armadillos do in the analogy above. The armadillos fail to recognize that the elephant's behaviors are different because he IS intrinsically

[1441] Singer, 'Judy Singer's Official Definition of Neurodiversity'.

different. And even if they do recognize that, they tell themselves that the elephant really is an armadillo, and since this is an armadillo society, he must be trained to be an armadillo.[1442]

Behind its professed anti-neuronormativity, Klein's thought experiment suggests that neuronormative behavioural expectations function *just like* speciesist expectations. In many ways, the gap between neurotypicality and neurodivergence appears just as wide as the gap between the human and the nonhuman, or between the elephant and the armadillo. Just like 'you cannot take the "elephant" out of an elephant', it would appear that you cannot take the 'autistic' out of an autistic. At a superficial level, the analogy seems perfectly warranted.

And yet, there is no species divide between the autistic and the allistic in Klein's story: both belong to the human species. The difference between the autistic and the allistic, on the one hand, and the difference between the elephant and the armadillo, on the other, operate at different levels. If we consider that autism might exist in nonhuman species, including in elephants, then the term 'autistic' may no longer operate *beside* that of 'elephant', but rather *within* it: some elephants would appear to be autistic, others allistic. In other words, 'elephant' and 'autistic' belong to different conceptual and analytical regimes.

In this regard, it is telling that Klein mobilises an animal metaphor, or rather *analogy*, to explain the difference between autistic and allistic people. Given that the two sides of the metaphor are not analogical or homological, but rather intersect, Klein's metaphor produces additional frictions. Admittedly, mobilising the metaphor of elephantine species-specific predicates allows him to clarify the depth of the differences that separate autistics from allistics. This further allows Klein to anchor these unique behavioural types into biological differences, and therefore to resist the neuronormative imposition of allistic behaviour onto autistics. However, does this analogy not presuppose a fixity and homogeneity of species predicates?

Indeed, the metaphor can only function if we assume that all elephants (and all armadillos) behave in the same way. While it is likely that, due to their evolutionary bearings, their morphology and biological constitution, elephants tend to behave in similar ways, could it be that behavioural differences exist within the elephantine species in the same way as they exist within the human species? Setting the larger category of elephantine behaviour and the smaller category of autistic behaviour on equal footing, as Klein does, amounts to positioning them as mutually exclusive. In other words, the possibility of elephantine neurodivergence is negated by the metaphor.

The limitation of Klein's analogical gesture is further evidenced by the need that arises, for his demonstration to be successful, to resort to a fictional story or thought experiment in

[1442] Frank Klein, 'ABA Proponents Attack Autistics: Showing Their True Character', 2004, capital letters in original. https://web.archive.org/web/20040419114912/http://home.att.net:80/~ascaris1/attacking-autistics.html.

which elephants and armadillos look alike. This is, of course, not true. Furthermore, it is not only the elephants' behaviour that is un-armadillo-like in this story, but also the armadillos': who are these armadillos who behave worryingly like humans, with biopolitical regimes of cross-species behaviourist regulation? What is this thought experiment that mobilises species differences at the same time as it negates them?

My concern here is not so much that a hypothetical elephantine autism is missed in this story, although this could also potentially matter, but rather that the story evidences – albeit only unwittingly, and thus ironically overlooks – the speciesist foundations of neuronormativity. Indeed, the conceptual gesture that is objected to in allistic humans – assuming neurotypicality based on alleged species homogeneity – is reproduced by the analysis through its application to elephants. It is indeed the speciesist technology of species specificity (see Chapter 4) that Klein's critique targets, albeit only implicitly, but it is this very logic that it then applies to nonhuman species. This matters not only – or not so much – because this analysis is anthropocentric and excludes nonhuman animals from the scope of neurodiversity, but because it fails to address the role that speciesism plays within neuronormativity itself and vice versa. Autistic humans may look similar to other humans in reality, but due to their divergent behaviours, they are not perceived as fully, properly human; the popular phenomenon of 'uncanny valley' testifies to this directly.[1443] In this regard, autistic subjects might be likened to those beings whom Thierry Hoquet calls the 'almost-humans', those who might at first glance look just like other humans, but whose differences slowly remove them from the realm of the human.[1444] They who, by these very differences, unsettle and trouble our tacit understandings of humanity. Similarly, neurodivergent and ethodivergent animals may appear a little scary or unsettling to humans because they do not behave the way their species identity calls for, in our eyes.

Species categories, such as neurodivergences, are conceptual categories that make sense of the differences that unfurl within larger categories. Autism, ADHD, Tourette syndrome, depression, and Down syndrome are examples of categories which encompass large ranges of differences while gathering individuals around shared traits. They may look like stable categories that are rooted upon larger stable categories of species, but both degrees of categorisation rely on logics of standardisation. These logics may be politically strategic at times, but they can also reinforce hegemonic forms of normativity when brought together. The issue at hand in neurodiversity, just as in biodiversity, is thus a matter of classification.

[1443] David Krauss, 'The "Uncanny Valley" Is a Lonely Place', *Psychology Today*, 29 November 2022, accessed 22 January 2026. https://www.psychologytoday.com/us/blog/atypical-children-extraordinary-parenting/202211/the-uncanny-valley-is-lonely-place.

[1444] See Thierry Hoquet, *Les Presque-Humains. Mutants, cyborgs, robots, zombies... et nous*, Paris: Seuil, 2021.

Ethology defines species-specific behavioural repertoires, and the question remains of whether the species level is still (or has ever been) the most relevant scale of analysis. One example of intraspecific ethological diversity can be found in the fire ant species (*Solenopsis invicta*), which encompasses both monogyne and polygyne forms. This refers to the presence of one or multiple queens in the nest. Typically, monogyne colonies are smaller and more territorial, whereas polygyne colonies tend to be larger and spread farther away from the nest. These differences are linked to a supergene variation (SB/Sb) and translate into various forms of sociality. In this sense, they are not only biologically separate but also behaviourally and ecologically distinct: they impact territoriality, colony density, reproduction, population structure, etc.[1445] Just as the behavioural diversity within this *Solenopsis* species, I contend that neurodivergences constitute similarly complex forms of intraspecific ethodiversity.

In this way, a core point raised by the framework of ethodiversity is that ethodivergences challenge the idea of a homogeneous species-specific constitution: the notion of species (and species typicality) should not mislead us into believing that there exists a natural way of behaving that applies homogeneously across a given species. It is also not true that all individuals who diverge from the statistical majority present pathological deviations or abnormalities. While this point already appeared in my antispeciesist-posthumanist critique of neurotypicality in Chapter 4, it reaches its full extension through the concept of ethodiversity. Indeed, there seem to be various forms of being-in-the-world (both innate and acquired, and often a blend of the two) within given animal species, which may only then distribute themselves statistically along spectrums going from more to less typical forms.

Just as neurodiversity, the concept of ethodiversity troubles philosophical anthropology's idea that there exists only one normal way of being in the world per species. But while in current understandings of neurodiversity, this only applies to humans, ethodiversity demonstrates the importance of expanding this deconstruction to the animal realm and to philosophical ethology. In other words, the concept of ethodiversity enables us to emphasise intraspecies differences in behavioural and existential styles. This offers a useful alternative to the ideas examined in Part I of this thesis in Uexküll, Goldstein, and Gehlen, where diversity was mainly found at the species level. For Uexküll, specifically, biodiversity took the form of stable, species-specific Umwelten. In his conceptual apparatus, further intraspecies diversity was observed in some species (such as dogs and humans), but this diversity never seemed to receive a proper explanation. On the contrary, ethodiversity takes the form of a diversity within diversity. Instead of assuming that intraspecies diversity is a variation or deviation from the norm, it recognises and celebrates the inherent diversity within species and social groups.

[1445] See Pnina Cohen and Eyan Privman, 'The Social Supergene Dates Back to the Speciation Time of Two *Solenopsis* Fire Ant Species', *Scientific Reports*, vol. 10, no. 11538 (2020).

This has political consequences. Indeed, the notion of ethodiversity interrogates the centrality of the species scale and its mobilisation by hegemonic, normative ideologies. This not only helps resist speciesism and neuronormativity separately, but it also reveals the connection between the two. To strengthen the conceptual connection between neurodivergence and ethodivergence, it may thus be useful to hold that ethodivergence is only found when the atypical behavioural style endures over time and makes a lasting impact on the subjective constitution of the individual. A unique iteration of atypical behaviour that is not repeated over time and that does not profoundly transform the subject should not be immediately described as ethodivergence, even though the *perception* of an individual's behaviour as 'atypical', 'weird', or 'abnormal' may lead to social punishment already at the first iteration. This distinction – which is necessarily arbitrary – is a matter of keeping the concept's extension (the number of individuals and situations to which it applies) in line with its intension (its meaning and political usefulness as a radical expansion of neurodiversity).

In this regard, we might follow Pierre Bourdieu in using the concept of *ethos* to refer to a set of behaviours incorporated and normatively regulated within a given species and material environment, which reflects existing relations of power.[1446] At some point in this career, Bourdieu separated the *habitus* ('the durable ways of being or doing that are incorporated in bodies'[1447]) between the *eidos*, 'a system of logical schemes' and the *ethos*, 'a system of practical, axiological schemes'.[1448] Later, he gave up on this compartmentalisation and invested in an overarching concept of habitus. Nonetheless, it may be useful to reclaim the ethos as a site where various forms of power relations are articulated and as a vector of symbolic and embodied domination, particularly in the more-than-human context.

Throughout this thesis, I have emphasised the intersection of neuronormativity (sometimes through ableism) and speciesism. Highlighting technologies of speciation and apparatuses of bestialisation, I am elaborating a concept of ethology that operates at this intersection. As it has repeatedly become clear, however, these relations of power are inherently

---

[1446] The notion of ethos is also found in M. Remi Yergeau's *Authoring Autism*, where it takes on a distinctly rhetorical meaning: ethos refers to a writer or speaker's ability to convey their authority. Yergeau argues that autistic people are frequently denied an ethos. See p. 140: 'the autistic subject is typically rendered as either a non-rhetorical or a demi-rhetorical subject. It follows, then, that with demi-rhetoricity comes deflated ethos.' To counter this, Yergeau invests in counternormative rhetorical practices, such as self-diagnosis. See p. 163: 'Counter-diagnosis promotes a crip-queer ethos, what Jenell Johnson has termed kakoethos (literally, as she puts it, "anti-ethos"). Importantly, and as discussed in chapter 1, Johnson emphasizes that kakoethos is not the absence of ethos. Instead, she argues, kakoethos signifies bad character, or the "discreditable." Kakoethos entails opposing, countering, and neuroqueering that which is typically framed as authoritative and credible. One model of such counter-diagnostic and kakoethical moves is the practice of self-diagnosis in autistic spaces.' The concept of ethos I mobilise in this thesis is more aligned with Bourdieu's emphasis on embodiment and somaticity, though it is useful to highlight that, in this regard too, the ethos of autistic people is routinely denied and stripped of its agency and intentionality.

[1447] Pierre Bourdieu, *Sociology in Question*, London, Thousand Oaks, and New Delhi: Sage Publications, 1993, p. 15.

[1448] *Ibid*., p. 86.

entangled with relations of race, class, and gender, rather than separate from them. I suggest that the concept of ethos can help us highlight the role that speciesism and anthropocentrism have played in these social relations. Evocative of ethology, the notion of ethos can indeed help us reintroduce the problem of humanism and the question of the animal in the philosophy and sociology of (human) power relations.

In this way, the ethos – which could also be named 'ethology' directly – functions as an embodied principle of differentiation. It is where the relations of gender, class, race, age, species, neurotype, and ability meet and are embodied. In these political forces, certain ethologies are deemed more natural or desirable than others, and individuals are treated accordingly. It is not only that autistic people and animals are always devalued compared to allistic people and humans, but that these political forces are distributed along entangled hierarchies of power. A high-masking autistic person who performs sociality in an ethonormative way and satisfies external demands for productivity will receive better treatment than the autistic person who embodies an autistic ethos of more-than-human a/sociality and fails (or refuses) to meet capitalist expectations. Similarly, the domesticated animal who complies with human(ist) expectations of docility and obedience will be treated better than the one who resists these demands. Once we understand the ethos (or ethology) as a stable behavioural style – for example, in relation to neurodivergence – it becomes clear how the ethos participates in other political regimes of oppression.

To a certain extent, it may also be possible to think of the ethos not only as a political instrument in the social relations of race, class, gender, age, species, neurotype, and ability, but also as a parallel (and intersecting) category to race, class, gender, age, species, neurotype, and ability. Indeed, in the same way that we speak of a bourgeois or popular ethos, a masculine or feminist ethos, we could reframe and expand the neurotypical/neurodivergent binary as ethotypical/ethodivergent to signal the socially constructed hierarchy of embodied ways of being, feeling, and behaving. In this sense, the ethos becomes the basis for distinct relations of power, which sanction and regulate the embodied and somatic practices of individuals. To clarify this distinction, I use 'ethos' when referring to the social regulation of behaviour within other axes of power relations, and 'ethology' when seeking to emphasise the autonomous relation of power that opposes the ethotypical to the ethodivergent.

In this perspective, one may describe a (hum)animal (perceived as) behaving in species-typical, milieu-typical, and ethonormative fashion as ethotypical. As we have seen in Chapter 4, species typicality is a regulatory ideal mobilised by humanist (speciesist, ableist, neuronormative, racist) institutions and structures to produce different classes of subject: the human versus the animal, the normal versus the pathological. Given that these ideals are performative constructions, it appears that no one can ever truly be ethotypical (or

neurotypical). Just like the neurotypical versus neurodivergent binary, the ethotypical/ethodivergent pair functions mostly as a political tool to distinguish positions of (relative) power or (relative) oppression. As in other forms of power relations, it is not always the conduct of individuals that is the target of oppression, but the way it is perceived and represented by others: sexism and racism do not derive from sex and race as biological phenomena, but from socio-political processes of gendering and racialisation. Similarly, ethodivergence should always be understood in its social context and as the product of situated social norms and hierarchies related to the correct use of bodies.

In this sense, just like neurodivergence, which is often but not always linked to disability, ethodivergence may enable unique forms of flourishing but can also be related to vulnerability or disablement: overstimulation, exhaustion, social exclusion, murder, etc. Moreover, while some forms of ethodivergence arise from selective pressures, others could be understood as effects of intraspecies and multispecies relationality or debilitating environments. Examples such as climate change,[1449] the breeding and confinement of farmed animals,[1450] and anthropogenic changes in animal habitats,[1451] illustrate situations that may hinder the expression of behavioural patterns that are typical in a species or milieu.

c) Ethonormativity and the Ambivalence of Ethodivergence

I define ethonormativity as the normative framework, rooted in humanist-speciesist principles, that defines and regulates what normal behaviour looks like in given (hum)animal groups, species, and environments. My concept of ethonormativity is intended as a complement (and, in some cases, as a replacement) to its neuro-counterpart, neuronormativity. Neuronormativity traditionally refers to the normative imposition and regulation of hegemonic neurocognitive functioning *in humans*. Increasingly, as I have shown in the previous chapter, neurological discourse engulfs a range of scales and dimensions of experience: affects, sensoriality, somaticity, etc. For example, according to Helen Edgar, neuronormativity refers to 'the dominant system of norms and practices in society that not only define but also enforce how attention should function, how senses should be regulated, how emotions should be expressed,

[1449] Rachel L. Gunn et al., 'Understanding Behavioural Responses to Human-Induced Rapid Environmental Change: A Meta-Analysis', *Oikos: Advancing Ecology*, vol. 4, no. e08366 (2022).
[1450] Genaro A. Coria-Avila et al., 'The Neurobiology of Behavior and Its Applicability for Animal Welfare: A Review', *Animals*, vol. 12, no. 7 (2022), 928.
[1451] Amanda K. Beckman, Breann M. Richey, and Gil G. Rosenthal, 'Behavioral Responses of Wild Animals to Anthropogenic Change: Insights from Domestication', *Behavioral Ecology & Sociobiology*, vol. 76, no. 105 (2022).

and how we should act within society'.[1452] I suggest the concept of ethonormativity could help us emphasise the field of somaticity, embodiment, and behaviour better than 'neuronormativity' did, while also emphasising the role that speciesism plays in these socio-political dynamics.

Ethonormativity can therefore be described as the dominant regime of normativity brought forward by ethotypicalism. If neurotypicalism referred to an ideology that 'privileges a form of cognitive processing characteristic of peopl[e] who have a neurotypical […] brain structure',[1453] then ethotypicalism may refer to an ideology that privileges a form of life characteristic of people who behave in a way deemed typical or normal for their species. As I have gestured at in Chapter 4, ethonormativity and ethotypicalism refer to an oppressive logic that unfolds at the intersection of neuronormativity and speciesism. In this regard, I follow Nina Lykke's invitation to integrate animals (or the more-than-human more broadly) into intersectional frameworks.[1454]

A simplified comparison might be instructive in order to clarify the unique intersection that ethonormativity captures: ethotypicalism is to neurotypicalism and speciesism as misogynoir is to sexism and racism. As a form of oppression, it targets beings who are at once neurodivergent (or, more broadly, who present atypical and counter-normative behavioural styles) and animal, though it also works together with racist and cisheterosexist logics. Given that all humans are animals, it follows that ethotypicalism targets all neurodivergent humans, those who may not be neurodivergent but are perceived as such (or at least, as 'weird' and 'atypical'), as well as animals who behave atypically and/or resist human(ist) behavioural expectations. In that sense, the concepts of ethonormativity and ethotypicalism could technically replace those of neuronormativity and neurotypicalism if we were to commit to a radical antispeciesist gesture in the neurodiversity movement.

However, a need for differentiation between the two concepts may arise from the political desire to sustain the neurodiversity movement's momentum, with its well-established neurocentric grammar. In other words, because neurological discourse may not be so easy to escape, it may seem useful to distinguish neuronormativity, with its emphasis on neurocognitive phenomena such as attention, memory, speech, and reasoning, from ethonormativity, with its emphasis on sensation, movement, and behaviour. However, such a distinction may risk reproducing dualistic thinking and anchor neurological discourse more profoundly in reductionist logics.

[1452] Edgar, 'The Neuronormative Paradigm'.
[1453] Salomon, 'From Marginal Cases to Linked Oppressions', p. 47.
[1454] See Nina Lykke, *Feminist Studies: A Guide to Intersectional Theory, Methodology and Writing*, New York and London: Routledge, 2010, pp. 80–2.

More importantly, perhaps, a terminological distinction could be founded upon differences in political positioning: while an apparent minority of people in the neurodiversity movement is committed to embracing their animality, the majority remain focused on reclaiming their humanity. These opposite existential and political commitments to animality and humanity can help us differentiate a largely anthropocentric neurodiversity movement from a more antispeciesist perspective. In this way, I hope that, by highlighting the common logics that target neurodivergent humans and many nonhuman animals, the ethodivergent perspective can contribute to establishing connections between neurodivergent and antispeciesist movements.

Moreover, the concept of ethonormativity partly echoes Giovanna Di Chiro's concept of eco-normativity, which is sometimes presented as 'eco(hetero)normativity'.[1455] This notion refers to the hegemonic forms of normativity that portray some environments, bodies, and sexual practices as natural and others as unnatural or 'toxic'. Di Chiro shows that, in heteronormative societies, given chemicals – including hormones such as oestrogens – are presented as impure or dangerous, notably because they would cause undesired forms of feminisation as well as trans and intersex variations. Though it operates in a very different context – namely, the speciesist-neuronormative regulation of embodiment – ethonormativity is also related to the fact that given behaviours and forms of embodiment are deemed more natural or acceptable than others. This distinction shall be useful to remember as we return to the difference between queer ecologies and queer ethologies below.

Precisely, ethodivergent beings often counter ethonormative expectations. Consequently, they tend to face debilitating ethonormative violence: horses who refuse to obey their riders and depressed or fearful cats who resist being petted, and may even attack humans, are often abandoned or euthanised. Similarly, foetuses bound to develop into humans with Down syndrome are more likely to be aborted after detection through prenatal screening.[1456] Autistic people, many of whom are likely to avoid eye contact and stim in public, are also faced with dehumanising ethonormative violence in ABA sessions.

In other contexts, such as science laboratories, zoos, and circuses, which involve animal captivity, the behavioural norms imposed on animals reflect anthropocentric goals, such as human entertainment or knowledge production. In such situations, animal subjects are required to behave in ways that are not always ethologically meaningful to them. While the behavioural

[1455] See Giovanna Di Chiro, 'Polluted Politics: Confronting Toxic Discourse, Sex Panic, and Eco-Normativity', in *Queer Ecologies: Sex, Nature, Politics, Desire*, ed. Catriona Mortimer-Sandilands and Bruce Erickson, pp. 199–230, Bloomington and Indianapolis: Indiana University Press, 2010.
[1456] Caroline Mansfield, Suellen Hopfer, and Theresa M. Marteau, 'Termination Rates After Prenatal Diagnosis of Down Syndrome, Spina Bifida, Anencephaly, and Turner and Klinefelter Syndromes: A Systematic Literature Review. European Concerted Action: DADA (Decision-making After the Diagnosis of a Fetal Abnormality)', *Prenatal Diagnosis,* vol. 19, no. 9 (1999), pp. 808–12.

repertoires expected from these animals could be deemed atypical at the species level, they are technically typical in the context of the animal industrial complex and its systemic violence. They profoundly shape the ethology of these animals, which may no longer be adapted to life in freedom. Conversely, when an animal refuses to comply with human(ist) expectations and resists their exploitation, their behaviour may remain typical at the species level while appearing as a form of dissidence in the environment of the animal industrial complex.

In these particularly complex cases, whether ethodivergence consists of the expected behaviour itself or in the ways animals resist ethonormativity is debatable. Indeed, the behaviours imposed on captive animals are unlikely to be observed in the wild. More broadly, even in the absence of clear ethonormative regulation, multispecies relationality can cause ethodivergence, for example, when an animal is raised by heterospecifics. A mythical example of this can be found in the ancestral figure of feral children, such as Romulus and Remus, the founders of Rome. Legend has it that they were raised by a she-wolf, even though they later came to embody the birth of the Roman civilisation. More common examples are found in the wild and in the domestic context, where animals that grew up around (or were even raised by) heterospecifics tend to internalise their behaviours. If one adopts a naturalistic and species-specific perspective, this rarity could imply that these (hum)animals are, in some way, ethodivergent: their pre-existing nature has been foreclosed and replaced by a new behavioural repertoire with long-lasting effects. For the sake of clarity, we may describe this first meaning as *species-specific ethodivergence*.

In this regard, when, in a recent online publication, Roberto Marchesini speaks of 'species-specific unease'[1457] and 'ethological disorders'[1458] in captive animals, such as 'repeated paw licking, pacing, self-biting, aimless stereotyped behaviors, redirected aggression, depression, or hypersomnia',[1459] the phenomena he is describing could be understood in light of species-specific ethodivergence. Indeed, they are part of a range of behaviours that are not typical of the animal's species. This demonstrates an inadequacy between an animal's ethological needs and the environment they are trapped in. If we were to describe these behavioural styles in less pathologising and medicalising terms, we could instead define them as ethodivergent disability, which would then emphasise the pathogenic role of the environment, following the social model of disability. It is indeed the environment itself (and the living conditions it imposes) that is atypical or unnatural for a species or an individual, and which disables them from expressing their preferred or pre-existing behavioural repertoire.

[1457] See Roberto Marchesini, 'State of Unease and Behavioral Pathologies in Animals', *Academia*, n.d., accessed 25 November 2025, p. 1. https://www.academia.edu/144495477/State_of_Unease_and_Behavioral_Pathologies_in_Animals.
[1458] *Ibid*., abstract, p. 1.
[1459] *Ibid*., p. 3.

At the same time, I have shown that the discourse of species – with its normative regimes of species specificity and species typicality – can be part of the speciesist problem: gauging the inherent value of a behaviour based on comparisons with a homogeneous and essentialised projection of species typicality risks reproducing ethonormative violence. Therefore, one may instead opt for limiting the term ethodivergence to behaviours that depart from human(ist) expectations. This includes the many animals in circuses, zoos, laboratories, and slaughterhouses, who resist oppression with their bodies, but also, in less heavily engineered contexts, the therian person who lives life as an animal (see below, subsection 2.4) or the (autistic) human who prefers the company of nonhuman animals over that of other humans.

To be ethodivergent, then, would be to embody a behavioural style that is unexpected and/or refused by the ethonormative order, whether or not it is 'natural' or 'typical' for the animal and their species. This second approach to ethodivergence could be described as *species-critical ethodivergence*. The fact that the behaviours performed by the animal might follow from a species-specific or species-typical inclination does not have to be presupposed or concluded to describe a form of ethodivergence in this other understanding.

The choice between a species-specific or species-critical approach to ethodivergence is complicated by the historical engineering of speciation during modernity in the Global North. Indeed, domestication – parts of which can be described as a human(ist) biopolitical intervention – has played a central role in creating new animal species and breeds which satisfy human needs and desires. There is an important way in which, at the evolutionary level, most domesticated species can be deemed ethodivergent if we compare them to pre-domestication times. In this way, the scientist who coined the concept of ethology, Isidore Geoffroy Saint-Hilaire, emphasised 'the modifying influence of domestication'.[1460] He explains that '[w]hile it has varied the type and significantly altered the normal order of functions, it has, it can be said, entirely changed the nature of the animals that man has subjugated. They were fierce, wild, sometimes even ferocious, *feri*, but they have become tame, gentled, familiarised with man, *mansueti*, *familiares*'.[1461]

In this way, we may already speak, in Geoffroy Saint-Hilaire's time, of a 'political ethology'[1462] that has engineered a large-scale transformation of many species. Domestication is therefore a historical process of mass production of ethodivergence. This means that many of the ethological needs and preferences of contemporary animal species are the result of ethonormative violence. In other instances, for example in the companion species of humanity,

[1460] Isidore Geoffroy Saint-Hilaire, *Histoire naturelle générale des ordres organiques*, vol. III, Paris: Victor Masson, 1860, pp. 480–1, cited in Piazzesi, *Del governo degli animali*, p. 185. My translation.
[1461] *Ibid*., my translation.
[1462] Claude Blanckaert, 'Les animaux "utiles" chez Isidore Geoffroy Saint-Hilaire. La mission sociale de la zootechnie', *Revue de Synthèse*, vol. 113 (1992), p. 381, my translation.

such as cats and dogs, domestication has likely taken the form of co-domestication, which means that nonhuman animals 'agreed' to domestication, so to speak, because they benefitted from it.[1463] In both cases, however, behaviours that have become 'natural' to animals today had to be incorporated as *second nature* in the first place.

In other words, ethodivergence, which consists of lasting behavioural changes, contributes to speciation. This is something Mathieu Amy concluded from Tinbergen's fourth question about ethology, which regards the phylogenesis of behaviour: '[the] process of speciation will therefore occur on the basis of these [behavioural] divergences'.[1464] This observation complicates the idea that, because a behaviour is salutogenic or typical for an animal (species), it is necessarily 'natural'. Nature, as posthumanist feminists have shown, is in fact already culture, so much so that both should likely be conflated. With Haraway, we could therefore argue that ethodivergence is a product of 'natureculture'.[1465]

This typology is further complicated by the existence of intraspecific ethodiversity, of which traditional neurodivergences are a prime example. Indeed, in many ways, neurodivergences like autism reflect both understandings of ethodivergence. On the one hand, many of them are statistically atypical for our species while being traditionally understood as 'natural', in the sense of not having been artificially created or engineered. Once again, however, the very 'naturality' of neurodivergence should be understood in the light of biocultural and biopolitical processes of speciation. Neurodivergence, too, is a product of natureculture. As the neurodiversity movement has shown, this atypicality does not entail that neurodivergences are pathogenic. On the contrary, as I have gestured at throughout this thesis, there is a biological normativity at work in autism, which means that autistic behaviours are meaningful ways to respond and adapt to one's environment and can therefore be salutogenic. This shows that, even *within* species, there are significant forms of ethodiversity at play. Nonetheless, according to some autistics, certain aspects of autism would be inherent sources of impairment even in a non-ableist, non-neuronormative, and non-ethonormative world. I have no intention to settle these debates here.

Neurodivergences are also politically divergent because they depart from ethonormative expectations and are often faced with ethonormative violence. In this regard, they are mainly subjected to disablement through violent and exclusionary socio-material environments. The

[1463] This idea is beautifully explored in Donna Haraway's work on companion species and sympoiesis. See, for example, Haraway, *The Companion Species Manifesto*, p. 29, for a discussion of the (co-)domestication of dogs (and humans): 'Many interpreters argue that the most likely scenario has wolf wannabe dogs first taking advantage of the calorie bonanzas provided by humans' waste dumps. By their opportunistic moves, those emergent dogs would be *behaviorally* and ultimately genetically adapted for reduced tolerance distances, less hair-trigger flight, puppy dévelopmental timing with longer windows for cross-species socialization, and more confident parallel occupation of areas also occupied by dangerous humans.' Emphasis mine.
[1464] Mathieu Amy, 'Les quatre questions de Tinbergen', *Linx*, vol. 54 (2006), p. 31, my translation.
[1465] 'Natureculture' is a concept developed in Haraway, *Companion Species Manifesto*.

condition of being a high-masking autistic, which results from this ethonormative violence, makes one pass as ethotypical from a species-specific perspective. That said, it produces an altered state of being that is pathogenic for most autistic people: an ethodivergence within an ethodivergence. In this way, most neurodivergences can likely be described from the perspectives of both species-specific ethodivergence and species-critical ethodivergence.

As we see, there is a fundamental ambivalence at work in my definition of ethodivergence. While the first two elements (atypicality within a species or milieu) may require a willingness to embrace species categories and the expectations they bring along, whether genuinely or strategically, the third part (departure from or resistance to humanist expectations) entails a more critical stance towards species categories. This ambivalence can be justified by the very duality of the discourse of species, which, as we have seen, can serve strategic functions within antispeciesist frameworks, while being part of the speciesist order to begin with. This is explained by the fact that speciation is a process at once natural and political. The usefulness of grappling with species concepts – even while being cautious of their potential essentialisation – makes it difficult to disentangle the notion of ethodivergence and points instead to the productivity, once more, of staying with species trouble.

In the context of largely naturally occurring forms of ethodivergence, such as autism, the discourse of species may prove particularly harmful. Precisely, the contribution of neurodiversity has been to highlight the existence of relevant forms of biodiversity *below* the species level, that is, within species. The fact that autism is statistically and politically atypical for the human species does not make it less natural or deserving of celebration.

When it comes to engineered forms of ethodivergence, for instance as a result of zootechnics, a general guideline for navigating species troubles can be found in Lori Gruen, Sunaura Taylor, and Michael Lundblad's respective calls, introduced in Chapter 4, for large-scale and systemic thinking. Indeed, instead of lingering over individual cases of divergence or impairment caused by human mistreatment of animals and on their species atypicality, they suggest we focus instead on the social and technical structures that systemically produce divergent and impaired species and breeds. In this way, the losses that animals experience because of human violence in the animal industrial complex – loss of autonomy, loss of freedom, loss of mobility, loss of interaction with conspecifics, loss of psychological well-being, etc. – could be described as ethodivergent disability. Similarly, understanding human-animal relations as producers of divergence is only another – perhaps more complicated – way of saying that multispecies relationality transforms all stakeholders: this is what Donna Haraway means by the idea of companion species.[1466]

[1466] See Haraway, *The Companion Species Manifesto*.

d) The Ecology and Biopolitics of Ethological Diversity

Recent concepts from the evolutionary sciences exemplify the various forms this process has taken in different contexts: human-mediated selection, anthropogenic/synanthropic evolution, domestication, etc. These concepts substantiate the idea that the process of speciation has been influenced by human presence and human intervention on wild, liminal, and domesticated species. In this way, while I formulated the concept of ethodiversity independently, it first originated within the ecological and evolutionary sciences. It was coined by Adolfo Cordero-Rivera, who defines it as '*the variability of behavioral traits in the biological hierarchy, including the individual level (for example personality), the population level (for instance alternative reproductive strategies), and the ecosystem level (like contrasting behavioral patterns between species)*'.[1467]

Before Cordero-Rivera, two other researchers working in conservation biology, Tim Caro and Paul W. Sherman, had argued for incorporating behavioural diversity in biodiversity, albeit only at the species and population levels.[1468] Cordero-Rivera introduces the individual level and distinguishes between functional diversity – defined as 'a measure of species interactions and relative importance in the community'[1469] – and behavioural (or ethological) diversity, which need not contribute to maintaining the equilibrium of the community or ecosystem to warrant preservation. Building on their work and expanding it, I offer the concepts of ethodiversity and ethodivergence to describe modes of being, behaving, and inhabiting the world that may be atypical (or even frankly dissident) but remain valuable to protect.

Examples of ethodiversity given by these scientists include the diversity of human languages,[1470] migratory strategies,[1471] and patterns of nocturnality and diurnality.[1472] These differences can be explained by local adaptation in the evolutionary sense, a long-term process due to its genetic component, but also by learning, which occurs much more rapidly. In this context, ethodiversity is directly related to ethodivergence: for instance, only 2% of American dippers switch migratory strategy over their lifetime.[1473] Additionally, in north-western Spain,

[1467] Adolfo Cordero-Rivera, 'Behavioral Diversity (Ethodiversity): A Neglected Level in the Study of Biodiversity', *Frontiers in Ecology and Evolution*, vol. 5, art. 7 (2017), p. 2, emphasis in original. See also, Juan R. Coca et al., 'Biosociological Ethodiversity in the Social System', *Biosystems*, vol. 210, no. 104552 (2021).
[1468] Tim Caro and Paul W. Sherman, 'Vanishing Behaviors', *Conservation Letters: A Journal of the Society for Conservation Biology*, vol. 5, no. 3 (2012), pp. 159–66.
[1469] Cordero-Rivera, 'Behavioral Diversity', p. 2.
[1470] *Ibid*., p. 4.
[1471] *Ibid*., p. 3.
[1472] *Ibid*.
[1473] *Ibid*.

'freshwater snakes (*Natrix maura*) go to seashore pools to capture marine fish (Galán, 2012), a behavior which [...] is rarely reported for the species'.[1474]

Cordero-Rivera asserts that 'ethodiversity is expected to be related to biological complexity [...] An increase in species richness will obviously be positively related to ethodiversity, simply because more species also mean, generally, greater phylogenetic diversity'.[1475] Similarly, sexual selection is described as 'a powerful force in evolution, which has produced and maintains many of the most extraordinary behaviors'.[1476] This suggests that ethodiversity may be 'positively correlated with the intensity of sexual selection'.[1477] This aligns with Elizabeth Grosz's argument that while natural selection perpetuates sameness and adheres to the logics of functionality and fitness, sexual selection acts as the affective driving force of difference and speciation in animal life, fostering innovations in art, culture, and politics.[1478] This ties ethodiversity and ethodivergence directly to matters of gender and sexuality.

Consequently, Cordero-Rivera notes that 'ethological differences may contribute or even predate speciation, and be the main process generating cryptic species, like crickets or birds only differentiable by male songs'.[1479] However, it is evident that the concept of speciation mobilised by Cordero-Rivera is different from the one I have been using with Anahí Gabriela González and Iván Ávila. While in the first approach speciation is mostly understood as a natural phenomenon, in the second approach it is also understood as the result of human practices (whether material and/or semiotic) and a potential source of speciesist and ethonormative violence. Given the failures of ecological models like biodiversity to address speciesism, which I have evidenced in Chapter 4, limiting our understanding of ethodiversity and ethodivergence to the naturalistic framework would not be satisfying.

Therefore, I reject a purely naturalistic conception of ethodivergence, where behavioural and somatic evolution could be reduced to natural phenomena, as if biopolitical – and, specifically, ethonormative – practices were uninvolved. On the contrary, I suggest the concept of ethodivergence should be positioned on the thin ridge between the natural sciences and biopolitical theory. In this way, it should be understood not only as a category that describes the political treatment of minoritised populations of (hum)animals, but also as a general descriptor of the animal condition. In both contexts, the concept of species is critically interrogated: at once natural and cultural, it emerges fundamentally troubled, a sign of the advent of queer ethology.

[1474] *Ibid*.
[1475] *Ibid*., p. 4.
[1476] *Ibid*.
[1477] *Ibid*.
[1478] Grosz, *Becoming Undone*.
[1479] Cordero-Rivera, 'Behavioral Diversity', p. 3.

2. Queer Ethologies and Queersomatic Practices: Queering Species and Somaticity

In the last few decades, particular attention has been devoted to queer ecologies as a site of counter-normative forms of life.[1480] The word 'ecology' comes from the Greek '*oikos*', which means 'house' or 'household'. It refers to the scientific study of relationships between living organisms in given environments. Ecological science seeks to preserve this cohabitability on Earth. Although social and sexual behaviours in animals have been central to the study of queer ecology, they have often been approached from an environmental perspective rather than ethological. As such, less attention has been devoted to queering the concept of animality or fostering connections with animal activism, let alone with neurodiversity.[1481]

In this subsection, I introduce the concepts of queer ethologies and queersomatic practices to describe the counter-normative ways of being and behaving performed by animal subjects, or what I have called ethodivergences. I draw on the idea that, due to its fundamentally embodied and somatic nature, animality constitutes the ontological background of neurodiversity. My goal here is to explore how, with its focus on somatic embodiment, neuroqueer theory can contribute to a more-than-human understanding of neurodiversity. By bridging the gap between philosophical ethology, posthumanism, neurodiversity, and queer theory, I hope we can learn new lessons about the role of desire, pleasure, and pain in neurodivergent and ethodivergent forms of life.

First, I introduce the concepts of queer ethology and queersomatic practices to begin articulating an ethological approach to neuroqueer theory. I map out some of the connections and differences between neurodiverse ecologies – as theorised by Erin Manning – and ethodiversity, particularly in relation to the concepts of species, worlding, and choreographies, and the problem of neuroreductionism. I suggest that queer ethologies connect to queer ecologies while assuming the position and perspective of the ethodivergent.

[1480] Catriona Mortimer-Sandilands and Bruce Erickson, *Queer Ecologies: Sex, Nature, Politics, Desire*, Bloomington and Indianapolis: Indiana University Press, 2010; Nicole Seymour, *Strange Natures: Futurity, Empathy, and the Queer Ecological Imagination*, Urbana, Chicago, and Springfield: University of Illinois Press, 2013.

[1481] Similarly, increasing attention has been given to 'ethology's ecologies', as historian of ethology Richard W. Burkhardt Jr. has called it. This notion is also found in the study of *Uexküll's Surroundings* mentioned in Chapter 1, where the *Umwelt* (ethological) was distinguished from the *Umgebungen* (ecological). These phrases suggest that the development of ethology as a science rested on a contingent and multilayered entanglement of people, places, and practices, rather than on a 'set program or inner logic'. See Burkhardt, *Patterns of Behavior*, p. 4 and p. 13 respectively. Less attention, however, has been devoted to examining the specificity of ethology itself and the question of whether a non-deterministic ethology, namely a posthumanist ethology, can simply be thought. At stake is the question of knowing whether the term 'ethology' necessarily entails a teleological or essentialist logic – I suggest it does not.

Then, I turn to autistic stimming, a more-than-human, more-than-neurological, and more-than-bodily practice that displays a queer ethology of desire, pleasure, and pain. I draw on Mel Baggs's stimming and its reception in more-than-human gesture and dance studies. I show that Baggs's stimming, rather than a mechanical, unintentional reaction, bears witness to a disposition for being touched and moved by the more-than-human components of one's body and world. Ultimately, I suggest that attending to the more-than*[1482] potentials of animality allows us to frame and enact divergence in a way that more effectively resists bestialisation and ethonormativity.

a) Introducing Queer Ethologies and Queersomatic Practices

Somaticity is at the centre of the more-than-human and more-than-neurological framework I introduced with the concepts of ethodiversity and ethodivergence. Inspired by ethology, this theoretical framework encompasses human and nonhuman neurodivergence but extends to the larger realm of embodiment and being-in-the-world. In this subsection, I explore some of the connections that bind ethodivergence together with neuroqueer theory.

With Nick Walker, I am interested in the kind of social intervention that occurs when beings engage in practices intended to reclaim their own 'weird potentials and inclinations'.[1483] What happens when ethodivergent ways of being are no longer only *atypical* or *divergent* – in one's species, community, or milieu – but also explicitly *dissident*? How can adopting weird ways of being and existing help us foster resistance and 'commonality in uninhabitable landscapes'?[1484]

As I have suggested above, ethodivergence is often related to disability and minoritised forms of embodiment, but the boundary between typical and divergent is often difficult to discern. Indeed, neuronormativity, just as ethonormativity and ableism, relies on the principle of *species typicality*, namely the idea that there *is* such a thing as a *normal* or *typical* way of behaving for each animal species (see Chapter 4). This presumption, which is at the origin of a joint form of speciesism-ableism (to use Vargas García's term), casts certain ways of being as marginal, abnormal, and weird, in order to delineate the boundaries of the typical.

In my understanding, the term 'ethologies' does not so much (or not only) refer to the predetermined and normative understanding of species as repertoires of typical behaviours, but

[1482] The asterisk after 'more-than' signals the indeterminacy of the process and its openness to proliferation: more-than-human, more-than-neurological, more-than-body, etc.
[1483] Walker, *Neuroqueer Heresies*, p. 162.
[1484] Abs S. Ashley, 'Neurotrans Affects: Choreography, Co-Creation, and Coalitional Resistance', *Transgender Studies Quarterly*, vol. 12, no. 2 (2025), p. 201.

rather to ways of being and behaving that encompass behavioural needs and preferences, existential orientations, affects, as well as inter- and intraspecific relationality. In that sense, my ethologies have more in common with Thom van Dooren and Deborah Bird Rose's *ēthea* (plural for 'ethos', meaning 'ways of life'[1485]) than with the ethograms of classical ethography. They draw on Erin Manning's concept of speciation – understood as 'the form the movement takes, in the bodying'[1486] and as 'the active ecology, more-than-human, that accompanies a given activity'[1487] – because they are fundamentally relational and performative. However, they depart from process philosophy in that they do not lose track of the animal and the organism, albeit understood in natureculture and posthuman ways.

In this way, while I can appreciate the conceptual gesture of collapsing subject-object and body-world dualisms, I suggest that understanding our differences as rooted in embodied and structural differences – not (only) neurologies, but (also) ethologies – remains a productive and useful tool to resist hegemonic normativity. In a world where dualisms are powerful tools of oppression and marginalisation, I believe that assuming the position and perspective of the dissident – starting with the ethodivergent humanimal – can still be a productive and subversive gesture. In this instance, I adopt what we might call a 'strategic humanism' (see Chapter 4), which attempts to reclaim and subvert humanist concepts, such as intentionality, beyond their ethonormative use.

Similarly, I offer the concept of queersomatic practices to describe the building blocks of queer ethologies. In this approach, I understand ethology and ecology as two ways of looking at the relationships that bind beings together: ecology focuses on the materiality, transversality, and processuality of relations beyond the different positions of individuals, whereas ethology focuses on the ontological conditions for, and modalities of, relating within individuals. Indeed, our individual ethologies are not pre-existing essences that would determine the material ecologies in which we participate, like Platonic ideas or Kantian categories of understanding. On the contrary, they are influenced by the networks of relationships that permeate us and continually (re)configure us. Nonetheless, I believe that our unique ways of relating to these ecologies, namely our situated ethological standpoints, *do matter*. In this sense, I echo Christine Daigle's posthumanist argument that we are 'transjective' beings, at once transsubjective (or intersubjective) and transobjective (or transmaterial).[1488] The process-oriented and new

[1485] Thom van Dooren and Deborah Bird Rose, 'Lively Ethography: Storying Animist Worlds', *Environmental Humanities*, vol. 8, no. 1 (2016), pp. 77–94.
[1486] Manning, *The Minor Gesture*, p. 243.
[1487] *Ibid*.
[1488] See Daigle, *Posthumanist Vulnerability*.

materialist approach should not be dissociated from the phenomenological approach, particularly when rethought in posthumanist key.[1489]

In other words, while I am committed to exploring the transcorporeal entanglements through which bodies and worlds are constituted,[1490] I would caution against fundamentally eschewing the ontological positionalities of (among others) humans, animals, plants, or fungi, and the diversities that constitute these categories. In that sense, in addition to speaking of the three ecologies (environmental, social, and mental) after Félix Guattari, I am inspired by Calarco's three ethologies. The objects and phenomena we study might be mostly identical, but rather than focusing on the material side of the phenomena only (ecology), I remain interested in the way they are embodied and experienced by human and animal subjects (ethology).

Let us take one example. While describing a case of multispecies play between a human (Dawn Prince-Hughes) and a bonobo (Kanzi), Erin Manning says:

> There is no purpose to play, except to create more play, to create more desire for play. "Are you a gorilla?" is this event of play's postscript, not its mandate. If we take it as the starting point, the question of subjectivity will become the framing device for the event. I am, you are, a question of species. Play will be undone of precisely what makes it play: it will become a rehearsal for something that exceeds it in advance. This is not what happens here. Play between Kanzi and Prince is the fielding of relational movement, and it's out of this improvisatory field that the question "are you a gorilla?" emerges, not the other way around. It is not a general category "gorilla" that is at stake here, but the gorilla of play's motif, and the way the motif makes ingression into the newly formed constellation: gorilla-like.[1491]

With this example, Manning is interested in the potentials that arise when we attune to the processual, infrasubjective, and infracorporeal nature of play. Her argument challenges the traditional presumption that species is the primary determinant of subjectivity and relationality. Yet while it is true that beginning the interaction with a preconception of gorilla typicality can lead to a reductive and ethonormative form of engagement with our nonhuman play partner, is it so clear that we should – and quite simply, can – eschew species altogether?

Donna Haraway, who is also interested in stories of human-animal play, provides another perspective. Attentive to the patriarchal, colonial, capitalist, and anthropocentric nature of

[1489] Posthuman feminist phenomenology is an approach that focuses on (and offers deep descriptions of) how we subjectively experience our own more-than-human constitution (i.e. the material entanglements that bind us to other human and nonhuman beings) and how these very entanglements shape our subjectivity. Besides Daigle, see Neimanis, *Bodies of Water*; and Lykke, *Vibrant Death*.

[1490] The concept of transcorporeality, coined by Stacy Alaimo, refers to the permeability of living bodies, which are constituted *by* but also *of* a variety of other bodies and beings, such as microorganisms, chemicals, etc. See Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self*, Bloomington and Indianapolis: Indiana University Press, 2010.

[1491] Manning, *Always More Than One*, pp. 213–14.

species, she ventures into the field of subversion by playing with the figure of companion species. [1492] In doing so, she reframes the concept of species, making it inherently relational: species are, by nature, the result of long-term biological and evolutionary, but also biopolitical, processes of speciation. These ecological processes of speciation, such as the co-domestication of dogs and humans, encompass non-negligible practices of co-subjectivation. In these companionships, desire, pleasure, and pain – which are arguably related to volition, intentionality, and agency – are the driving forces of relationality, not only its modalities.

Haraway's understanding of multispecies play is also directly indebted to her knowledge of the history of human-animal relations and animal sciences. Haraway explains that when she touches Cayenne – her Australian Shepherd partner – during play, she also touches layered, violent, and intimate histories of domestication, labour, and colonialism.[1493] Indeed, Australian Shepherds were bred for their ability to work with humans and were tied to histories of settler colonialism and capitalist expansion in the American West. Though in non-reductive ways, these histories are embedded in Cayenne's bodymind, and as such, when she touches Cayenne, Donna is implicated in – and perhaps, made complicit with – those very histories that made the multispecies relation possible in the first place.

Haraway therefore suggests that becoming-with other animals requires acute attention to, and response-ability for, the histories of speciation that constitute our multispecies relationships. Instead of collapsing dualisms altogether, she calls us to complexify them by developing forms of 'significant otherness', namely, intimate relationships that do not eschew differences and asymmetries of power.[1494] By doing so, we can learn to engage in 'ontological choreography, which is that vital sort of play that the participants invent out of the histories of body and mind they inherit and that they rework into the fleshly verbs that make them who they are'.[1495] Becoming-with other animals would thus be one way of bodying other bodies and worlding other worlds, away from hegemonic practices. Ultimately, '[i]nhabiting that legacy without the pose of innocence, we might hope for the creative grace of play'.[1496]

As I understand them, queersomatic practices – being as much ethological as ecological – are more indebted to Haraway's understanding of worlding and choreography than to Manning's. Nonetheless, I hope this distinction can foster fertile encounters and conversations rather than erect new boundaries. As such, while I acknowledge the non-innocence of the species concept, I believe, with others, that it can still be cautiously put to work. For instance, Roberto Marchesini uses species predicates as a tool to imagine more response-able

[1492] See Haraway, *Companion Species Manifesto*.
[1493] *Ibid*.
[1494] *Ibid*.
[1495] *Ibid*., p. 100.
[1496] *Ibid*., p. 98.

relationships with nonhuman animals. Species specificity, in his eyes, can also be a way to resist the human/animal dualism and reclaim our humanimality. Knowing where we stand in evolutionary terms can indeed help us more fully acknowledge what we owe to other animals for our own development. As such, ethodivergence signals an open field of becoming while acknowledging the evolutionary and biocultural bearings that orientate our ways of being-in-the-world.

My goal here is therefore to demonstrate the strategic potential of a philosophical-ethological approach to neuroqueer theory as a complement to an ecological and process-oriented approach like Manning's. What happens when an animal raised by members of another species hybridises its so-called 'species-specific' instinctual behaviours with those deemed typical of its host species? What happens when a horse resists being ridden? When sheep have queer sex? When a cat is depressed or a dog hypersensitive-hyperactive, conditions that are not readily acknowledged in nonhumans? What happens when mice are used to model neurodivergence in the science laboratory? Or when a community of humans adopts therianthropic practices and forsakes its ethonormative privilege (see subsection 2.4)?

What kinds of affects are experienced then, and how can we resist their being met with ethonormative violence? Which understandings of ethology and animality are needed to foster large-scale affirmation of queer ethologies? While it is not necessary to get into the details of philosophical ethology here, some core elements can be highlighted that are directly relevant to a queer-ethological perspective: the movement of desire, the pursuit of pleasure, and the general avoidance of pain. The fact that not only companion animals like cats, but also most farmed animals tend to hold out their heads to be caressed, and enjoy running, having 'zoomies', or listening to music, says something about the realm of animality, which neurodiversity studies is inevitably doomed to miss unless it takes a more-than-human turn. Yet these are behaviours and affects found in humans as well: this points to our shared condition of animality.

At the same time, animal-being is just as diverse as human-being, if not more. While the concept of neurodiversity helped us expand our gaze on what being human means, ethodiversity opens up to the richer, wider realm of animality. The smell-rich worlds of dogs, the minimal perception of female ticks (who are, amongst other things, deaf, blind, and prepared to wait unfed for more than a year), and the deep desire of autistic humans for fusing with objects of interest bear witness to different ethologies. They evidence diverse conditions for the realisation of desire, pleasure, and psychological well-being.

Yet because most animal species manifest an ontological freedom to wander in the world and experience it sensorially and affectively, they are also often vulnerable to pain and

psychological distress.[1497] In our supposedly posthuman world – marked by multispecies relationality, planetary crisis, and anthropocenic technoscience – we are increasingly brought to witness curious forms of disorientation, disorder, or disharmony, in human and nonhuman animals. These phenomena are found in the interstices of more-than-human and natureculture becomings in altered, unnatural, and changing milieus. They also, more fundamentally, teach us about the ethological dispositions and preferences of other animals.

As such, philosophical ethology is not only a posthumanist endeavour; it is also inspired by the holistic and existential contribution of (post-)humanistic psychology, which it attempts to reclaim in a more-than-human context. It embraces the idea that Mad and pathologised behaviours in human and nonhuman animals can emerge as a response to situations of distress and oppression, while rejecting the pathologisation of these behaviours. For instance, the stimming of the overwhelmed autistic and the pacing of the zoo lion are often a direct – yet subjective – response to a distressing situation. Here, stimming is not necessarily innate or a core determinant of an essential autistic or leonine ethology. Rather, it is a tentatively meaningful behavioural response to the distress caused by detention or an inadequate environment.

Moreover, by focusing on somaticity and behaviour, ethodivergent theory complements the verbness and processual nature of neuroqueering as something that one *does* and not, or not first and foremost, something that one *is*. Neuroqueering, as Nick Walker has argued, is not reserved for specific people defined by their essential belonging to this or that neuro-, gender, or sexual minority.[1498] Neuroqueering, because it is a practice and not an essence, is virtually for everyone. What I am (or rather become) follows from what I do and from what is done to me. In the same way, queer ethologies explore the subversive potential of embodied affects and behaviours in an ethonormative world, but without losing track of our distinct situatedness.

In this way, while identitarian and essential categories like autism do matter, more attention should be paid to the critique of ethonormative structures and to examining the conditions for somatic emancipation. Indeed, with its focus on neurology, neurodiversity has been often itself as the identity movement of and for well-defined neurodivergent populations (like the autistic, ADHD, and dyslexic communities). Neuroqueer theory, because it rejects the reduction of diagnostic categories to a role of founding political advocacy, and rather emphasises embodiment and somatic potentials, can help turn neurodiversity in a novel direction. The fact that aikido dojos, in Nick Walker's autistethnographical narrative, are never portrayed as designed specifically for autistic people, yet prove to benefit them so importantly, shows how valuing the diversity and potentialities of bodyminds at large – rather than

[1497] See Burgat, *Liberté et inquiétude de la vie animale*; *L'Inconscient des animaux*.
[1498] See Walker, *Neuroqueer Heresies*, p. 161.

neurobiological structures only – could in turn serve us all, and not only well-defined neurominorities.[1499] Similarly, with ethodiversity, I attempt to remain cautious of identity politics. By introducing the concepts of ethodiversity and ethodivergence, I am trying to perform a queer and anti-identitarian gesture: instead of the neuroessentialism and neuro-identitarianism prevalent in large parts of the neurodiversity movement today, I attempt to move towards the queerer fields of natureculture becomings and somatic performativity.

Following neuroqueer theory, ethodivergent politics – and particularly in its queer declination – aims to ensure that animals get to experiment with their 'weird potentials'[1500] and their affects of desire, pleasure, and pain beyond ethonormativity. In this perspective, going from neurodiversity and neurodivergence to ethodiversity and ethodivergence allows us to expand our understanding of what it means to be-in-the-world and, more importantly, to be *well* in the world, whether one is human or not. More so, by developing the concept of ethodivergent solidarity below, I will try to redirect attention from the identity-based framework of neurokinship (and its *transspecies* variation) to the queerer playfields of significant otherness and coalition-building. If I turn to autistic stimming in the last part of this subsection, it is not to delineate boundaries in the neurodiversity movement or call to an autistic essence. Rather, this is intended as a way of exploring but *one* situated, yet contingent, queer ethology of perception, affect, and movement, among many others.

b) **Autistic Stimming as a Queersomatic Practice**

Whether one engages with autoethnographical writing by autistic subjects or with scientific literature in neurobiology and cognitive psychology, it becomes increasingly clear that the modalities of autistic perception tend to differ from those of allistic perception. Autistics tend to perceive the world in more intense ways (something we learned from the Intense World Theory in Chapter 1) and process stimuli – whether cognitive, affective, or sensory – in more focused ways than their allistic counterparts (which the theory of monotropism revealed in Chapter 5). Their perception is sometimes described as less filtered, which means that they perceive seemingly insignificant elements in their material environments more acutely. It often feels like their bodyminds strive to give these stimuli most of their attention. Moreover, this tendency to process stimulation in open or intense ways implies that autistic subjects tend to grant *meaning* to and take an *interest* in things that allistics tend to disregard, or simply cannot perceive, like the affective tonality of places or minute sensory elements in one's surroundings.

[1499] See Walker, *Transformative Somatic Practices*, pp. 86–173.
[1500] Walker, *Neuroqueer Heresies*, p. 162.

Many such elements, or objects of attention, belong to the realm of the nonhuman. This is an observation Erin Manning makes when she speaks of 'autistic perception'.[1501] With this concept, she aims to describe an autistic disposition for field experience, that is, a tendency to perceive field dynamics in one's milieu. This means that autistic perception can be understood as an ecological and processual form of perception. As Manning makes clear, the neurotypical way of perceiving is aimed towards utility and functionality. It requires precise and immediate parsing and chunking of environments into affordances.[1502] In this sense, neurotypical perception directly contributes to the reproduction of an ethonormative way of being, notably by encouraging typically human ways of interacting with material environments and nonhuman animals.

On the contrary, autistic perception attends to the more-than*, to affects, tonalities, and intensities, to the 'multiplicity that is life-living'.[1503] Autistic perception also comes with autistic movement and autistic somaticity, in which stimming plays a central role. Stimming, too, is often reduced to a 'quirk of neurobiology', to speak like Yergeau:

> About stimming, which is usually described as uncontrollable, involuntary movements that calm down the nervous system, Ido Kedar writes: "Stims have force that is powerful and compelling. They feel like forces that make resistance futile. It's like resisting hunger or sleep in some ways. They come into my mind so suddenly. Then I feel overwhelmed by the urge to do something like hand flapping, or noises, or spitting out water" (2012: 42).[1504]

Moreover, somatic practices like stimming are a core component of autistic ethologies because they influence how autistic people perceive the world and how they relate to others. They also have an impact on autistic people's becoming as bodyminds, and on the worlds they inhabit, as Walker explains:

> Somatic practices—particularly somatic practices that involve cultivating a felt sense of mind-body unity and integration, attuning to the body as a source of wisdom, and feeling into the body's connectedness with the rest of the world—have the potential to transform one's relationship with one's bodily self in a way that can also fundamentally transform one's relationship with the natural world, awakening an embodied ecological consciousness in which the deeply felt sense

[1501] See Manning, *Always More Than One*; *The Minor Gesture*.
[1502] The theory of affordances, developed by James J. Gibson, refers to the fact that we perceive each object according to its usefulness. We perceive a chair as an object for sitting on, a handle as an object for opening/closing, etc.
[1503] Manning, *Always More Than One*, p. 219.
[1504] Ido Kedar, cited in Manning, *The Minor Gesture*, p. 245.

> of being a living body expands into a deeply felt sense of being part of a greater living ecosystem.[1505]

With this quote, Walker connects somatic practices to environmentalism. She exemplifies the close connection between ethology and ecology, which I described above. She argues that fostering transformative somatic practices can help us better attune to the world that surrounds us and, ultimately, transform it in affirming and life-sustaining ways. With the concept of queersomatic practices, I suggest that we can not only connect to the world in new ways – and develop new forms of being-in-the-world or being-*of*-the-world – but also contribute to somatising (or worlding) more pleasurable worlds for ourselves and others beyond ethonormativity.

As Michel Foucault's *History of Sexuality* famously highlights, the body is indeed a privileged site of troubling and queering. Beyond the identity and knowledge-rich field of *scientia sexualis*, cursed by a modern-colonial *will to know* – that is, to classify regimes of desire as effects of anatomy – the sphere of bodily connections and somatic practices allows us to develop subversive forms of more-than-human *ars erotica*.[1506] Indeed, Foucault invites us to decline invitations to free ourselves through disclosing our identity, our desire, and our sexuality in the open. Instead, Foucault's life and philosophy invests the site of pleasure as a force that acts between and across bodies, reconfiguring the map of bodily connections.

This is also the lesson that technoqueer, ecoqueer, and ecosex theoreticians and activists Paul B. Preciado, Annie Sprinkle and Beth Stevens, Donna Haraway, Stacy Alaimo, and many more have laid out on paper and turned into real-life ecologies.[1507] All these thinkers and doers have taught us to think of and to do pleasure beyond the reductive boundary that is the skin, investing prosthetics, nonhuman critters, water, or the Earth as lovers, erotic partners, and significant others. Certainly, these queer and more-than-human bodily pleasures are part of the queer ethologies I am engaged with in this section. They can help us subvert the normative regulation of what counts as normal or pathological, human or less-than-human, when it comes to bodily presence in the world.

To sustain these claims and clarify what I mean by queer ethologies and queersomatic practices, I turn to Mel Baggs's account of stimming and its reception in more-than-human

---

[1505] Nick Walker, 'The Use of Transformative Somatic Practices in Processes of Collective Imagination and Collaborative Future-Shaping', in *Routledge Handbook for Creative Futures*, ed. Gabrielle Donnelly and Alfonso Montuori, London and New York: Routledge, 2022, p. 322.
[1506] Michel Foucault, *The History of Sexuality, Volume 1: An Introduction*, New York: Pantheon Books, 1978.
[1507] See Paul B. Preciado, *Testo Junkie: Sex, Drugs, and Biopolitics in the Pharmacopornographic Era*, New York: The Feminist Press, 2013; *Countersexual Manifesto*, New York: Columbia University Press, 2018; Elizabeth M. Stephens and Annie M. Sprinkle, 'Ecosex Manifestos', University of California at Santa Cruz, n.d., accessed 12 March 2026. https://sprinklestephens.ucsc.edu/manifestos/; Haraway, *Cyborg Manifesto*; *Companion Species Manifesto*; *Staying with the Trouble*; Alaimo, *Exposed* .

gesture and dance studies.[1508] I suggest that Baggs's stimming is a queersomatic and ethodivergent practice that helps us challenge the norms of what being-in-the-world means in humans and animals, and therefore contributes to shaping worlds that are more welcoming of all kinds of ethologies.

Despite its familiar status in disability and neurodiversity discourse, Mel Baggs's oft-cited video, *In My Language*, is well worth revisiting.[1509] In this video, Mel Baggs shows themself stimming with, among other things, their hands and voice, a computer keyboard, a sheet of paper, flowing water, and a cupboard handle. In what they describe as their 'native language' and a mode of active interaction and becoming with the milieu, Mel Baggs provides a strong case against the idea of autistic isolation from the real world. They argue against interpreting their stims as metaphors or symbols of deeper meaning. Instead, stimming would be a way for Baggs to react to their material surroundings.

My interest here is twofold. First, I seek to highlight the pleasurability of Baggs's stimming and how it testifies to an ethological desire for more-than-human relationality. Second, I hope to show that, by escaping the ethonormative regulation of human somaticity, Baggs's stimming exemplifies a queer ethology of desire, pleasure, and pain. Indeed, the very sensorial component of Baggs's 'native language' suggests an ethology made of embodied affects before symbolic ones: 'I smell things. I listen to things. I feel things. I taste things. I look at things. It is not enough to look and listen and taste and smell and feel. [According to the ethonormative grammar of sociality,] I have to do those to the right things […] and fail to do them to the wrong things'.[1510] While people expected hir to use and interact with objects and items in a specific way, based on utility and convention, Mel Baggs preferred to 'react' to hir surroundings. Sie refused to engage in interaction in a typically human fashion, centred on interhuman sociality and the backgrounding of the more-than-human world. Instead, sie focused on the material world – its agency, its ability to affect hir. Sie decentred hirself (starting) from hir lived, humanimal, and autistic embodiment, and gave hirself over to hir surroundings.

To *react*, to act again, is to come after something or someone has acted first. Reaction is neither typically human nor typically animal: reaction is the ultimate physicochemical phenomenon. According to the mechanistic thinking that pervades neuronormative societies, autistic behaviours are largely involuntary and therefore do not fall within the realm of subjectivity. But Mel Baggs was no automaton; they were an animal, a humanimal. Hir reactions are proof of a prior condition of being affected by one's surroundings or, better, of

[1508] Mel Baggs was nonbinary and used the pronouns they/them and sie/hir. I use the two sets of pronouns alternatively.
[1509] Mel Baggs (@silentmiaow), 'In My Language', *YouTube*, 15 January 2007, accessed 15 November 2025. https://www.youtube.com/watch?v=JnylM1hI2jc.
[1510] *Ibid*.

being *affect-able*. They bear witness to a queer ethology of pleasure: you touch me, I touch you back. As such, I believe Baggs does more than react: they *respond*. While *reaction* can be construed as the physicochemical, predetermined mechanism of cause and effect, or perhaps of reflex, easily reclaimed by a neurocentric and reductionist lens, *response* implies subjective engagement and intentionality.[1511] Framing Mel Baggs's stimming as a response and not just a reaction opens the way to the very real possibility that it is the result of a desiring orientation towards the more-than-human world. As such, stimming, for them, is not simply an embodied expression of a pre-existing autistic neurology or its materialisation through acts triggered by specific stimuli. Stimming is a way of stepping into a rich – and sometimes overwhelming – world of movements and intensities.

Without a doubt, stimming can also be a way to cope with hardship, a response to pain and distress. And indeed, stimming is sometimes described as a functional and biologically normative phenomenon: stimming serves a function in the preservation of autistic life. In light of what Florence Burgat calls the freedom and restlessness of animal life, stimming can be understood as a way of negotiating with worry, of reclaiming agency and freedom in an overly intense world. But stimming goes even further: it injects desire into distressing situations, turning pain into pleasure. Stimming, then, is not only reactive: it creates worlds. Baggs does not stim only because they are in pain or because the world distresses them; they stim because they desire. Their stimscapes – as neurodivergent ecologies – reveal an animal disposition, a desire for becoming-with-the-world, for *somatising* one's own world; namely, an autistic ethology. That Mel Baggs responds to their surroundings means they possess a disposition for existing within it, for standing outside themself (from Latin *ex-stare*). They bear in themself the germ of *ecstasy*, of autistic joy. Who moves the other first, when being-moved relies on a prior movability?

Rooted in desire, stimming is proof of gratuity in animal life. It not only takes the form of self-presentation, namely, of giving-oneself-to-be-seen,[1512] but also, and more importantly, of giving-oneself-something-to-see. It brings forth an intertwining, a disposition for seeing (and feeling) oneself through the world at the same time as seeing (and feeling) the world through oneself. It is a queersomatic practice of hybridisation and anthropo-decentralisation.[1513] One's so-called 'species-specific' human predicates appear to oneself in the encounter, at the same time as they are decentred and overcome.

[1511] See Despret, *What Would Animals Say*, pp. 139–44.
[1512] As discussed in Chapter 3, the idea that animality (if not also life at large) can be defined in part by a form of self-presentation is found in Portmann, *Animal Forms and Patterns*.
[1513] For the concept of anthropo-decentralisation, see Marchesini, *Over the Human*. This will be examined again in the last subsection.

In the words of philosopher-in-dance Emma Bigé, stimming can help me attune to 'movements within me that are not my own, movements through which my interdependence with other earthly critters is brought to consciousness. The movements of my breathing, the movements of my digestion, the movements of my posture as it perpetually adjusts to gravity'.[1514] Stimming is a more-than-human, queersomatic practice through which the border between the self and the world fades, through which my movements are at the same time inside me and not my own. 'Everything seems to begin *from the middle*'[1515]: 'hands, arms, upper body and head cohabit with a world that seems to emerge through their actions at least as much as it welcomes them'.[1516]

Baggs's stimming offers us the kind of queer ethology that gives 'hope for the creative grace of play'.[1517] It constitutes a beautiful example of what Erin Manning calls minor gestures, a kind of choreography inspired by autistic perception. In these queer ethologies, affects, intensities, and movements are perceived before specific parts of the environment are parsed and turned into affordances and utilities. By interacting with things in ways that are not typical, normal, or productive, Mel Baggs created a minor, counter-normative ecology of gestures and relations which subverted the hegemonic, ethonormative modes of human interaction with the world. Following Emma Bigé, stimming can thus be understood as a way of 'making the more-than-human, more-than-body part of our movements tangible'.[1518]

The more-than-human phenomenology that emerges from Baggs's stimming teaches us about the subversive potentials of queer ethologies – with their focus on desire, pleasure, and pain – and, ultimately, of ethodivergence. In doing so, it invites us to tune back in to the more-than* potentials of animality. As a desiring condition, animality makes us move-able and touch-able, but also profoundly pleasure-able. It helps us overcome the limitations of a normative ethology in which species and their relations are predefined and aligned with ethonormative agendas.

[1514] Emma Bigé, *Mouvementements. Écopolitiques de la danse*, Paris: La Découverte, 2023, abstract. I translated this and all later citations of this reference from French.
[1515] *Ibid*., p. 53.
[1516] *Ibid*.
[1517] Haraway, *Companion Species Manifesto*, p. 98.
[1518] Bigé, *Mouvementements*, p. 55.

3. A(û)nimal Conspiracies: From Transspecies (Neuro)kinship to Ethodivergent Solidarity

In this subsection, I turn to the kinds of 'a(û)nimal conspiracies' the framework of ethodiversity can help us materialise, following Vargas García's formulation. To this end, I return to the animal models of autism. I examine various ways of conceptualising and configuring human-animal relations in this context and argue that, rather than focusing on identity- and diagnosis-based kinship, it might be more productive to imagine coalitions, allyship, and solidarity grounded in the shared experience of ethonormativity and resistance to it. That said, the field of a(û)nimal conspiracies is not exhausted by the relations between autistic humans and model animals of autism. In this way, while I emphasise this particular bond here, it is only to exemplify the varied ethico-political questions that arise at the intersection of autism and animality.

a) Doing Philosophy with Model Animals: A Note on Positioning and Method

In her book about the Arabian babbler, Despret reminds us that 'the areas in which all research *modifies its subject*, and sometimes simply from the fact of being interested in it, differ in this considerably from a natural world without a soul'.[1519] Surely, the use of animal models in autism science reflects not only scientists' (intersecting) representations of animality and autism but also actively transforms the animals themselves. Life sciences can thus be described as 'sciences productive of existence'.[1520] In this sense, instead of focusing only on representations, Despret invites us to do 'philosophy *with* animals'.[1521]

What would it mean to do philosophy with the animals who are brought to model autism? How can we cultivate greater response-ability towards them?[1522] As Despret notes, the question of what the animal really is beyond all representation is an 'impossible question',[1523] but we can tease out some of the patterns of the interaction between mice and scientists in order to better respond to the mice. Doing so first requires positioning oneself in relation to the animals. Despret shows that scientists create – or, as we shall see, deny – existence not only for the mice

[1519] Despret, *The Dance of the Arabian Babbler*, p. 13. I am adding the emphasis back, which Despret uses in the original French text.
[1520] *Ibid*., p. 14.
[1521] *Ibid*., p. 158, emphasis in original.
[1522] As mentioned in the introduction to Part II, the concept of response-ability comes from Donna Haraway's philosophy. It is developed, among other places, in Haraway, *Staying with the Trouble*.
[1523] Despret, *The Dance of the Arabian Babbler*, p. 15.

but also for themselves. They are caught up in the construction process. In this sense, to paraphrase Despret, autism researchers exist as producers of autistic(-like) mice.[1524] By considering the possibility that these mice are really autistic – or at least experience autistic affects – I insert myself into this intra-active apparatus and come to exist as an autistic producer of autism researchers who, in turn, produce autistic-like mice. I recognise that, by critically engaging with topics such as animal models of autism and animal autism, and exploring paths for transspecies (neuro)kinship, care, and solidarity, I 'produc[e] a new phenomenon, a new "researcher–animal" relation [in which I end up] becoming the irreducible third term'.[1525]

What methodologies are needed to inhabit this third-term position correctly? A first option would be to go into the field to meet the mice and scientists. At first glance, it may seem that it is only there that I could experience the kind of event through which 'the babblers [similarly] happened to [Despret]'.[1526] But the science laboratory remains an ambivalent site for me: a space of potential insight, yet one that risks recruiting me into the very practices I seek to critique. In this section, I am trying to inhabit the epistemically difficult position of the outsider, engaging critically with the science laboratory without entering it. With this in mind, I draw on insights from Despret and Burgat's philosophical ethologies and examine the intersection of critical autism studies, posthumanism, and critical animal studies. In doing so, I aim to rethink the kind of kinship that binds me to the model animals and formulate an ethico-political stance on autism science.

b) **Autimouse_Meets_Autistic_Human@Autism_Science**[1527]

While I am undeniably an outsider to the world of autism science, I am not speaking from nowhere. As an autistic person whose divergence was attested by a psychiatric assessment, my existence bears the stamp of pathologisation. It is caught, despite myself, in the net of an autism science that seeks to cure me and my human (neuro)kin. Resisting this pathologisation is what matters to me. What is it that matters to the mice as they are caught, like me – though with

[1524] *Ibid*., p. 14
[1525] *Ibid*., p. 15. I believe the English translation deviates from the French original, in which it is not the 'researcher–animal relation' that ends up becoming the third term, but the observing anthropologist or, in this case, myself as an observing philosopher.
[1526] *Ibid*., p. 159.
[1527] This title is a play on Donna Haraway's book, *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncoMouse™*, which imitates the structure of an email address to signal the historical era of technoscience that opens with the new millennium.

different effects – in the autism industrial complex? Clear evidence shows that laboratory animals, including model animals, suffer.[1528]

What kinds of alliances can be thought and materialised between autistic humans and animals who model autism? A first approach can be theorised with the notion of *transspecies (neuro)kinship*, by which I refer to a form of ethical engagement for nonhuman animals stemming from our bio-behavioural homologies.[1529] While neurokinship is traditionally understood as a bond between people sharing a neurotype,[1530] transspecies (neuro)kinship refers to a bond between individuals sharing biological or behavioural traits across species boundaries. To formulate this notion, I draw on the field of transspecies psychology, which examines the commonalities in cognition and affect between human and nonhuman animals.[1531]

Yet as my examination of the onto-epistemology of animal models has shown, the inferences made possible by animal models are inherently limited. It is unclear – and perhaps unlikely – that the mice are turned autistic by the apparatus. Given these epistemic limitations, can an ethical position be developed based on transspecies (neuro)kinship? To answer this question more thoroughly, I base my analysis on a comparative reading of Donna Haraway, Eva Haifa Giraud, and Zipporah Weisberg, thinkers who occupy three different positions on the spectrum ranging from critical animal studies to posthumanism.[1532] I show that while the bio-behavioural homologies do matter, they can also lead to a problematic form of anthropocentrism when positioned at the foundation of an ethico-political critique of animal models.

I begin this journey with Donna Haraway's work on OncoMouse™, a model for breast cancer developed in the United States of America during the 1980s. Haraway explains that she uses 'OncoMouse™ allegorically and figuratively to tell a story, not because these actors are the most important ones in technoscience in general or molecular biology in particular [but] because they can signify and incarnate, perhaps more than explain, the world into which I have been interpellated'.[1533] Similarly, I recruit the murine models of autism, or *autimice*, to embody the kind of world that interpellates autistic humans and autistic-like rodents in regimes of medicalisation and pathologisation.

[1528] See, for example, Elif Akkaya and Harun Reşit Güngö, 'The Dark Side of the Animal Experiments', *Joint Diseases and Related Surgeries*, vol. 33, no. 2 (2022), pp. 479–83.
[1529] By bracketing the neuro- prefix here, I am aiming to represent the undecidability of the question 'Are the rodents *actually* autistic?' (at least in neurological terms) as well as to nuance the centrality of the neurological scale. The parentheses can alternatively be removed for the sake of access and clarity.
[1530] Stimpunks, 'Neurokin'.
[1531] See G. A. Bradshaw and Mary Watkins, 'Trans-species Psychology: Theory and Praxis', *Spring*, vol. 75 (2006), pp. 69–94.
[1532] While in my understanding, critical animal studies and posthumanism are not mutually exclusive, this is the way they are often understood by members of the respective fields.
[1533] Haraway, *Modest_Witness*, p. 85.

In this sense, Haraway's OncoMouse™ closely resembles my autimouse: 'OncoMouse™ is a weapon in a specific long-term campaign—the U.S. national war on cancer, declared by Richard Nixon in 1972. Propelled by federal money through the National Institutes of Health and later by substantial corporate investment, this material-semiotic conflict has lavishly underwritten the last quarter-century's exploits in molecular biotechnology.'[1534] Just like Haraway's figuration, autimouse is a weapon in the international war on autism declared in the USA during the 2000s with the NIH's mass funding of autism research.[1535] In this strikingly medicalised world, I concur with Haraway, citing Leigh Star, who suggests 'that it is both more analytically interesting and more politically just to begin with the question cui bono, than to begin with a celebration of the fact of human/non-human mingling'.[1536]

Cui bono? Who does this serve? Who benefits from this? Or, as Haraway asks: 'For whom does OncoMouse™ live and die? […] Who lives and dies—human, nonhuman, and cyborg—and how, because OncoMouse™ exists? […] Does s/he contribute to deeper equality, keener appreciation of heterogeneous multiplicity and stronger accountability for livable worlds?'[1537] As I have noted in the first part of this chapter, autimice exist mainly so that scientists can develop cures for autistic humans, cures whose necessity has been firmly contested by the very individuals they target. The use of animal models harms not only the mice but also autistic humans. In this sense, autimouse separates from her next of kin, OncoMouse™: 'Whether I agree to her existence and use or not, s/he suffers, physically, repeatedly, and profoundly, [so] that I and my sisters may live. […] S/he also suffers [so] that we, that is, those interpellated into this ubiquitous story, might inhabit the multibillion-dollar quest narrative of the search for the "cure for cancer."'[1538]

But while a cure for cancer might be good news, the same cannot be said for autism. In cancer research, according to Haraway, the question we should ask is not simply: 'How do we resist cross-species medicalisation and pathologisation?' (the question I am trying to ask here), but: 'Is the suffering caused to the research organisms balanced by the relief of human suffering?'[1539] This question seems all the more urgent as cancer has become the second leading cause of death worldwide[1540]: '[i]f not in my own body, then surely in those of my friends, I will someday owe to OncoMouse™ or her subsequently designed rodent kin a large debt'.[1541]

[1534] *Ibid*., pp. 82–3.
[1535] The concept 'war on autism' was proposed by Anne McGuire. See McGuire, *War on Autism*.
[1536] Star, cited in Haraway, *Modest_Witness*, p. 38.
[1537] *Ibid*., p. 113.
[1538] *Ibid*., p. 79.
[1539] *Ibid*., p. 113.
[1540] See Hiroki Nagai and Young Hak Kim, 'Cancer Prevention from the Perspective of Global Cancer Burden Patterns', *Journal of Thoracis Disease*, vol. 9, no. 3 (2017), pp. 448–51.
[1541] Haraway, *Modest_Witness*, p. 79.

The kind of ethical response-ability Haraway is after derives from the debt humans owe to rodents. Indeed, rather than opposing the use of OncoMouse™ altogether, Haraway suggests we explore alternative modes of use within medical technoscience. The latter is thus called upon to pay more heed to the very existence that is created for the mice: 'I do not think […] using the mice as research organisms [is] morally impossible, but I believe we must take non-innocent responsibility for using living beings in these ways and not to talk, write, and act as if OncoMouse™, or other kinds of laboratory animals, were simply test systems, tools, means to brainier mammals' ends, and commodities.'[1542]

Here, Haraway rejects a kind of use that could be described as reductionist and instrumental. Instead, drawing on Levinas's philosophy, she casts the animal in a more generous light, insisting on their subjective nature: 'The animals in the labs, including the oncomice, have face; they are somebody as well as something, just as we humans are both subject and object all the time. To be in response to that is to recognize copresence in relations of use and therefore to remember that no balance sheet of benefit and cost will suffice.'[1543] Haraway's call for a recognition of murine subjectivity generates a sense of transspecies kinship in her text: 'OncoMouse™ is my sibling, and more properly, male or female, s/he is my sister.'[1544] In the context of animal models of autism, we might be tempted to position the recognition of murine subjectivity as the basis to develop a form of transspecies (neuro)kinship founded on bio-behavioural homologies.

Yet while Haraway believes that another way of using animal models is possible if we train scientists to acknowledge their subjectivity and engage in more response-able relations with them, I am not sure this is possible. Not only should we not celebrate 'human/non-human mingling' uncritically, as Haraway herself admits with Leigh Star, but the forced pairing of autistic humans and autimice signals a deeper issue. If, as I have suggested, the animals' bestialisation is directly linked to that of autistic humans, it is not clear that autism science could ever treat animals correctly without renouncing its ultimate goal of curing autistic people. Moreover, if autism science is representative of the kind of medical paternalism that grounds medical science at large, Haraway's conclusions might need to be reevaluated not only in the context of animal models of autism, but of animal experimentation at large. In this regard, we might follow critical animal studies scholar Zipporah Weisberg in noting that,

> [b]y suggesting that OncoMouse™ is her "sister" Haraway in fact papers over and minimizes the actual gap between herself and this transgenic creature and the techno-capitalist apparatus which

[1542] *Ibid*., p. 82.
[1543] Haraway, *When Species Meet*, p. 76. It is worth mentioning, however, that Levinas denied most nonhuman animals a face and that his philosophy remained, in that regard, largely within the bounds of humanism.
[1544] Haraway, *Modest_Witness*, p. 79.

> allowed OncoMouse™ to be created in the first place. By calling OncoMouse™ her sister without wholly opposing its development to begin with, Haraway does not actually shrink the Great Divide which separates OncoMouse™ from herself. Rather, she reinforces it by setting up what amounts to nothing more than a false identity between herself—a relatively free and inviolable human subject—with a totally unfree and utterly violated subject-turned-object. In the end, Haraway's characterization of this creature as her "sister" seems to serve primarily as another consolation for supporting violence that is committed against animals in the name of techno-science.[1545]

According to Weisberg, Haraway's ethical positions forget that the suffering of laboratory animals is nothing like the suffering of humans with breast cancer. This is even truer for autism, which, according to neurodiversity proponents, is not a pathology. We should therefore remain cautious with the kind of theoretical gesture that overlooks the gap in how human and nonhuman animals are treated. How can autistic people build an alliance with autimice that acknowledges the proximities of their material-semiotic situations (their forced pairing by the medical industrial complex) without trivialising their differences, particularly the suffering and violence the mice endure in the laboratory? Besides, while an ethico-political stance based on transspecies (neuro)kinship might be warranted in other contexts, it might not be so justified in the science laboratory where animal models face strong epistemic limitations.

Moreover, can we ever ensure that, by elaborating transspecies kinship of this kind, we are not conditioning care on resemblance? Are we requiring the mice to be like us, look like us, or behave like us, before we care for them or defend them? This is nothing short of a humanist pitfall which should be resisted. The idea of a cross-species solidarity between autistic humans and autimice should recognise – not obscure – their differences.

c) From Transspecies (Neuro)kinship to Ethodivergent Solidarity

While Weisberg is right to criticise Haraway's legitimation of violence upon animals, her contention that Haraway overlooks difference is less persuasive: Haraway's notions of 'companion species' and 'significant otherness'[1546] suggest that non-innocent response-ability requires deep attention to the asymmetries and differences at play in multispecies relations. Instead, the issue seems to lie in the way these differences are described as non-innocent and in the conclusions Haraway draws (or rather, refuses to draw) from that description. In *What*

[1545] Zipporah Weisberg, 'The Broken Promises of Monsters: Haraway, Animals and the Humanist Legacy', *Journal for Critical Animal Studies*, vol. 7, no. 2 (2009), p. 49.
[1546] See Haraway, *Companion Species Manifesto*.

Comes After Entanglement? Eva Haifa Giraud makes an alarming observation: while Haraway's figure of non-innocence can do productive work for feminist theory, it is too often positioned at the end of the analysis rather than at its beginning. Instead of fostering less unequal and violent practices, it seems to have sometimes become a commonplace that justifies the *status quo*. Giraud thus highlights

> the danger of calls to "stay with the trouble" becoming reduced to a platitude, a danger that becomes especially pronounced if this sentiment simply serves as a recognition that no position is innocent. Understanding Haraway's slogan as a call to recognize complexity and maintain openness can make it difficult to locate coordinates for intervention, or determine how to contest relations that impact on the most vulnerable.[1547]

What kind of theoretical focus is created and required by the idea that 'no position is innocent'? According to Giraud, an emphasis on 'human/non-human mingling', that is, on multispecies relationality, is at stake here. Indeed, in a commentary on Vinciane Despret, Giraud blames the idea that '[b]odily affinities […] can be used as a means of gaining a sense of felt understanding and responsibility'.[1548] While she recognises and welcomes the non-anthropocentric gesture at play, she suggests that it forecloses in-depth attention to the alternative realities that could have existed had the mingling not happened in the first place:

> A focus on bodily encounters, in other words, can neglect what has already been excluded from a situation in order for an encounter to take place. In contexts where certain expressions of agency have already been foreclosed, questions thus need to be asked about whether it is even possible to create space for animals to "speak back" or signify their bodily needs in ways that disrupt anthropocentric assumptions.[1549]

Giraud's critique is particularly relevant to the case of animal experimentation, which, as I have shown, is built upon a negation of animal subjectivity. I suggest that the bestialisation of the mice is not just a byproduct of animal models, something that could be avoided with better apparatuses, but their necessary outcome and perhaps their prerequisite. Historically, animal experimenters took individuals out of their preferred habitats and prevented them from embodying sociality as they're used to. Today, the animals used for experimental research – such as mice – often belong to species or breeds created for this purpose, which confirms the hypothesis of an instrumental use of animals in these spaces. In both cases, the laboratory context usually provides an inadequate and debilitating environment for the animals. In a discussion of Thom van Dooren's reading of Konrad Lorenz, Giraud thus notes that

[1547] Giraud, *What Comes After Entanglement*, p. 97.
[1548] *Ibid*., p. 130.
[1549] *Ibid*.

> the specific forms of bodily engagement borne out of imprinting produce a "captive form of life" that generates "a lifelong attachment to humans at the expense of relationships with other members of its species." These encounters, in other words, take "advantage of an ontological openness to produce an altered way of life." […] [T]hese encounters with geese enact a form of ontological exclusion. A particular way of being (the captive-goose) is materialized to the exclusion of a type of goose who is capable of having other forms of attachment to their environment or other members of their own species.[1550]

Drawing on Giraud, I conclude that autimouse's becoming-autistic – whether we decide to understand it in ontological or critical terms – should not be celebrated too hastily as the ground for multispecies neurodivergent politics. While it is true that the bodily affinities that arise between us could pave the way for a multispecies alliance, they are also indicative of an 'altered way of life' which, in the context of the science laboratory and of autism science, is not beneficial to the mice. However, it is not (or not primarily) because the mice are becoming autistic – and therefore asocial or inflexible – that they are unlikely to desire or benefit from this way of life. Instead, it is because they live in an artificial environment which prevents them from connecting with their conspecifics in a meaningful way – an environment that therefore relies on a form of systemic disablement and which we could describe, with Abs S. Ashley, as an 'uninhabitable landscape'.[1551]

In my perspective, the altered (and perhaps, autistic-like) way of life aroused in autimice constitutes a clear ethodivergence. Whether the autimice's ethodivergence corresponds to autism as a neurodivergence or simply mimics it, it follows from a form of neuronormative and bestialising violence which is not foreign to autistic humans, namely ethonormative violence. And whether the affects that autimice experience are anything like autistic ones or not, it is likely that being trapped in an unpredictable and sensorily challenging environment like the science laboratory is not exactly enviable.

Therefore, while neurodivergence or ethodivergence are not fundamentally undesirable, it is not clear that the 'altered way of life' imposed on the rodents is anything more than *bare life*.[1552] Concretely, the experimental settings 'compromise [the rodents'] possibilities of existence for a long time'.[1553] By nature, so to speak, animals are 'subjects whose movements

---

[1550] *Ibid*., p. 131.
[1551] Ashley, 'Neurotrans Affects', p. 201. This argument echoes Lori Gruen's argument about disabled animals (discussed in Chapter 4), in which she opposes the foundation of animal ethics on a comparison between the animal's disabled condition and presumed species-typical abilities. While it would be ableist to suggest that because they present impairments, the animals are left with an undesirable life, it is possible, and even crucial, to target and resist the disabling institutions (e.g. animal farming, animal testing, etc.) which enact systemic violence on animals.
[1552] See Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life*, Stanford: Stanford University Press, 1998.
[1553] Burgat, *L'Inconscient des animaux*, p. 99.

are behaviours charged with meanings inscribed phenomenologically in their environment'.[1554] In the science laboratory, their ability to create a world of meaning for themselves, that is, to lead their own existence, is imperilled.

Precisely, it is 'because animals [human and nonhuman] are predisposed to anxiety, fear, depression, and possibly a loss of contact with reality, that they can be damaged by experimental devices'[1555] and go through ethodivergence. But because the autism industrial complex disregards animal agency and the lived experience of autism, scientists are enabled and legitimised to compromise the possibility of the mice's existence by imposing ethodivergence on them. Whether the mice can express comforting behaviours, perform sociality in their preferred way, or live in a meaningful environment, does not matter in this context, therefore, it never materialises. Acknowledging this systemic violence at the root of animal models is to suggest there is something fundamentally wrong not with (animal) autism, but with autism science, which, to borrow the words of Burgat, is a 'science that destroys'.[1556]

Given the particular violence that model animals face in the science laboratory, it is not so much (or not only) the superficial likeness of autistic behaviour in humans and autistic(-like) behaviour in mice that allows for multispecies alliance, but their shared experience of ethonormativity. But while the behaviour expected from autistic humans is (neuro)typical, the behaviour expected from the mice is atypical for their species. As such, in animal models, nonhuman divergence is the instrument called upon to help cure and fix human divergence.[1557]

Ultimately, the fundamental links between animal models' epistemic fragility and their systemic violence demand that we articulate the onto-epistemic with the ethico-political and develop a critical stance that resists medical paternalism, pathologisation, and bestialisation at once. Ethodivergence, I suggest, provides a framework for thinking across species boundaries – not by collapsing differences, but by attending to how ethonormativity affects both human and nonhuman animals. Ethodivergent solidarity binding neurodiversity and animality together is urgently needed.

In this regard, Giraud's work, which critically engages with Haraway's more-than-human care ethics, offers valuable insight: 'despite its sometimes "non-innocent" role – care nonetheless fosters responsibility that even extends to bringing "the enterprise to a halt" if necessary (Haraway, 2008: 82)'.[1558] To care for autimice more responsibly, it is not necessary

[1554] *Ibid*., p. 106.
[1555] *Ibid*., p. 105.
[1556] *Ibid*., p. 107.
[1557] This observation offers concrete evidence that ethodivergence is not a homogenising framework. While ableism and neuronormativity are found across species lines, the species-based component of ethonormativity rests on the human/animal difference and, ultimately, on zooanthroponormativity.
[1558] Eva Haifa Giraud and Greg Hollin, 'Care, Laboratory Beagles and Affective Utopia', *Theory, Culture & Society*, vol. 33, no. 4 (2016), p. 13.

to celebrate our transspecies (neuro)kinship and seek out neurological affinities. Instead, I suggest we oppose the forced, deliberate, and systematic production of ethodivergence – and its reliance on apparatuses of pathologisation and bestialisation – and call for the shutdown of autism science in its current form.[1559] This shutdown is not merely a call for better methods or protocols in animal models, but a necessary and radical reorientation of autism science towards situated knowledges developed by and for autistic people. Following the disability advocacy slogan 'Nothing About Us Without Us',[1560] we should continue to fight for research that centres the lived experiences of neurodivergent humans while opposing exploitation, bestialisation, and ethonormative violence.

**

As in Claire Oshetsky's novel discussed in Abs S. Ashley's recent work, this case study 'not only stor[ies] shared violence, it also envisages commonality in uninhabitable landscapes' (Ashley, 2025, p. 201) exemplified here by the science laboratory. While Ashley applies this to the entanglement of neurodiversity and transness and calls for coalitional resistance between the two movements, the phrase captures the dynamics of autism and animality in the science laboratory. The first aspect, shared violence, emerges in the co-construction of autism and animality. By tracing the forced pairing of nonhuman animals and autistic humans in autism science, I have sought to challenge the dehumanisation of autistics while exposing how it relies on the bestialisation of both animals and neurodivergents.

The second aspect, commonality in uninhabitable landscapes, must be approached with care. This means we should think carefully before embracing the oversimplified claim that autimice are actually autistic. Labelling animals too hastily – especially with a psychiatric category as loaded as autism – risks reinforcing medicalisation and pathologisation rather than resisting them. This is not to say that bodily similarities between autistic humans and nonhuman animals do not matter, nor that autism is inherently foreign to nonhuman experiences. But in the landscape of the science laboratory, what matters is not only which forms of life are permitted, but also which ones are foreclosed. In this environment, what might be framed as the becoming-autistic of the mice constitutes a violence both in its ends and in its means and must therefore be resisted.

[1559] This idea of an autistic ethos of shutting down could be productively expanded in future research.
[1560] See for instance James Charlton, *Nothing About Us Without Us: Disability Oppression and Empowerment*, Oakland: University of California Press, 1998.

4. Becoming Autistic, Becoming Animal, Unbecoming Human: A(û)nimal Epiphany and Therianthropy

Due to the neurocentric grammar of the neurodiversity movement, it is often suggested that late-diagnosed autistic people find out an essential truth about themselves. It is as if there was an autistic self hidden inside or behind the layers of masking, namely a fundamental, neurological essence waiting to be uncovered and embraced. While it is likely that autism comes with particular neurological traits and attributes which cannot be found in allistic individuals, there is good reason to remain sceptical of the neuroessentialism of the discourse surrounding the 'autistic identity' and 'autistic neurology'.

There is no doubt that being diagnosed (whether professionally, by oneself, or by autistic peers) opens a field of transformation for the self. However, it is not clear that this process always takes the shape of a 'becoming what one already was, deep down' or 'becoming what one was meant to be'. Rather, I believe this process to be more contingent, encompassing an open field of potentialities that could be actualised or remain unexplored. With this final subsection, I offer the notion of 'becoming autistic' as a way to describe this open process of finding out about one's autistic potentials *and* experimenting with (one's) autistic ways of being and behaving.[1561] This is certainly not to suggest that virtually anyone could 'become autistic', nor that everyone might be a little autistic, for the neurologies that constitute the backdrop of autistic becomings might indeed be a *sine qua non* condition. In this regard, my proposal remains centred on autistic people embracing their autistic potentials. However, I am also interested in the possibility that autistic forms of life and embodiment might foster transformations in non-autistic lives as well, thereby deconstructing the neurotypical standard.

In order to reframe autism and becoming autistic as a field of potentials (rather than a naturalised essence), I pursue the shift from neurological discourse to ethological discourse begun earlier in this chapter. With philosophical ethology, I have suggested that the possibility of neurodivergence itself is rooted in the phenomenon of ethodiversity. In this approach, it appears that neurodivergences such as autism are made intelligible, at an ontological level, by our animality. In other words, I argue that neurocognitive, affective, and somatic differences can be found in animals precisely because cognition, affect, and behaviour are distinctive traits of the ontology of animal-being. Not only is animality the ontological background of neurodiversity, but it also provides, through philosophical ethology, a framework to reconceptualise neurodivergence.

[1561] For an autistethnographical narrative of 'becoming autistic' mentioning the fragmented and nonlinear nature of autistic life, see Damian Milton, 'Becoming Autistic: An Aut-ethnography', *Cutting Edge Psychiatry in Practice*, vol. 4 (2014), pp. 185–92.

In this final subsection, I focus on a specific predicate of autistic life: namely, its processual or performative nature as an ethology. By calling autism an ethology (or a set of various ethologies), I am not trying to reduce it to behaviour in a behaviourist way, but rather to perform an anti-essentialist and anti-reductionist gesture. An ethology, as I have mentioned above, is not a predetermined Umwelt or ethogram. Rather, it is a situated and contingent way of being and behaving that results from one's biological and ontological background as much as from one's orientations throughout the lifespan. As such, autism is not only something one is because of one's neurology, but something one does and something one becomes. Again, this is not to reject the biological fact that autism is innate and hereditary; my intention is rather to emphasise the leeway and the differences in how autism can be embodiment socially, culturally, affectively, somatically, existentially.

Precisely, because autistic ethologies are not entirely pre-determined or essential but also contingent and performative, they encompass a virtually infinite array of differences. As one says in the autistic community, 'if you've met one autistic person, you've met one autistic person', not autism itself. With this in mind, this subsection offers figurations of *becoming autistic* understood both as a 'coming-to-know'[1562] and a field of embodied practice. I argue that becoming autistic, as a particular way of becoming human, is intimately tied to animality and ways of *becoming animal*, or to say it with Berenice Vargas García, of reclaiming one's a(û)nimality. In this sense, becoming autistic can be a way of practising much-needed forms of *unbecoming human*.[1563]

To do so, I draw on the insights of Roberto Marchesini, situated at the intersection of philosophical ethology and zooanthropology, the latter of which refers to a science that studies how nonhuman animals and their cultures contribute to human culture. In Marchesini's understanding of animality (and humanimality), we become what we are through our relations with other animal beings. I suggest this aspect of multispecies relationality is key to autism, autistic culture, and autistic ethologies, for reasons described in chapter 4. The posthumanism that emerges from this approach is affirmative on various levels (ontological, epistemological, ethical, political): it is all about 'reconfiguring' the human, namely, giving it a new figure, a new face (and with it, a new subjectivity), based on its interaction with nonhuman animals.

In this regard, this posthumanism *à la* Marchesini (but also *à la* Haraway or Braidotti) breaks from a more critical or deconstructive posthumanism *à la* Herbrechter. In a book chapter dedicated to this 'kind of politics of figuration based on mimesis',[1564] the latter in fact describes

[1562] Yergeau, *Authoring Autism*, p. 160.
[1563] Felice Cimatti, *Unbecoming Human: Philosophy of Animality After Deleuze*, Edinburgh: Edinburgh University Press, 2020.
[1564] Herbrechter, *(Un)learning to Be Human?*, p. 184.

in Marchesini 'a curious anthropocentrism-in-reverse',[1565] where humans may come to establish their (potentially unique) position in nature through their encounters with nonhumans. For him, such reconfigurative politics are 'symptoms of our posthumanist desire',[1566] namely, projections of our human, all too human, psyche. While we should remain cautious of temptations to define the human of the posthuman(ist) predicament once and for all, I do believe that imagining new ways of (un)becoming human remains a valuable horizon. In that regard, critique and negativity are also part of the equation, for instance in the desired effects of these embodied and figurative politics: the ethea and ethologies I am calling for strive towards the total abolition and dismantling of structures of oppression such as neuronormativity, speciesism, white supremacy, patriarchy, etc.

To this end, I first introduce the notion of 'autistic epiphany' in close connection to Roberto Marchesini's concept of 'animal epiphany'.[1567] I show that epiphanies reconfigure the boundaries of the human through encounters with the non-properly human. By doing so, they might challenge the traditional phenomenological and humanist conception of otherness. By turning to autistic epiphanies, I then distinguish two kinds of epiphanies: *affirmative epiphanies* allow us to envision new, desirable forms of becoming-human-with-animals, while *critical epiphanies* help us resist our incorporation into the ethonormative order.

Then, I turn to therianthropy, a cultural movement, a somatic practice, and an existential orientation towards animality, which is often tied to autistic culture and autistic ethologies. I discuss Roberto Marchesini's concepts of 'therianthropy', 'theriomorphism', and 'zoomimesis', philosophical-ethological and zooanthropological figures that help us envision embodied forms of epiphany. Finally, I examine the extent to which therianthropy as practised in the eponymous movement aligns with Marchesini's philosophy, and how it can help us foster coalitional forms of becoming autistic, becoming animal, and unbecoming human.

a) A(û)nimal Epiphany: Towards A(û)nimal Conspiracies

Epiphany comes from the Ancient Greek 'ἐπιφαίνω' (*epiphaínō*), meaning 'I appear'. It refers to an experience of perception that radically reconfigures our understanding of the perceived object and, thus, of ourselves. Human beings experience various forms of epiphanies throughout their lives. As Francesca Ferrando notes, the first one is perhaps 'the epiphany of

[1565] *Ibid*., p. 183.
[1566] *Ibid*., p. 186.
[1567] See Marchesini, *Over the Human*.

becoming human',[1568] the kind one experiences in the encounter with another human face, in a Levinasian sense. Another form of epiphany occurs in the encounter with 'the "face" of the planet'[1569] – a kind of epiphany astronauts are most likely to experience, but which has become increasingly common in our eco-conscious and techno-mediated world.

The epiphany I am interested in here is of another kind – the animal epiphany. Roberto Marchesini defines it as 'a revelation of a possible and desirable existential dimension whenever a human being encounters an animal otherness and its different life condition, such as a bird's flight, a fish swimming, a bear's expression of strength, or a wolf's howl'.[1570] Naturally, the animal epiphany requires an 'act of seeing and being seen, since the animal is a "being-to-be-seen"'.[1571] But animal epiphany isn't just a perceptual phenomenon: to have an animal epiphany means to be taken and transformed by it. As Marchesini notes, '[w]hen I see a bird in flight, not only do I see by that that birds can fly, and it's possible to fly, but I get the sense that *I* could be able to fly'.[1572]

In that sense, according to Marchesini, epiphany is not reducible to the classical *phenomenon* from phenomenology, which involves our consciousness only to access the *other than me*. In the phenomenon, the characteristics of the other might be objectified through the articulation of an Umwelt or ethogram,[1573] while the perceiving subject remains at a distance. On the contrary, the epiphany creates a sense of the *other with me*: '[t]he moment I let myself be possessed by the animal that therefore I am not, difference is no longer distance'.[1574] In this way, it 'takes us beyond ourselves and asks for some kind of modification of ourselves'.[1575] Something in our perspective and our embodied performance is inevitably transformed along the way. In the epiphanic scene, '[t]he animal other loses its exclusively phenomenal nature and becomes an epiphany: *the animal that therefore I could be*'.[1576]

Animal epiphanies constitute a key aspect of human cultures. They belie the individualistic and autonomous conception of the human by disclosing the role of multispecies relationality in the development of humanity. At a philosophical level, it also enacts a series of shifts in traditional conceptions. As Jeffrey Bussolini highlights, '[i]f the phenomenological

---

[1568] Francesca Ferrando, *Philosophical Posthumanism*, London and New York: Bloomsbury Academic, 2019, pp. 85–6.
[1569] *Ibid*., p. 86.
[1570] Marchesini, *Over the Human*, p. 150.
[1571] *Ibid*., p. 47. This is the same argument I mobilised in subsection 2.2 through Adolf Portmann.
[1572] Jeffrey Bussolini, Matthew Chrulew, and Brett Buchanan, 'Entering Theriomorphic Worlds', *Angelaki*, vol. 21, no. 1 (2016), p. 267, emphasis in original.
[1573] See Marchesini, *Over the Human*, p. 54, n. 14.
[1574] *Ibid*., p. 50.
[1575] Marchesini, cited in Bussolini, Chrulew and Buchanan, 'Entering Theriomorphic Worlds', p. 266. In that sense, Marchesini's notion of epiphany could be described as part of a posthumanist phenomenology, where the 'other' that is perceived always already influences (and potentially, co-constitutes) the perceiving self.
[1576] Marchesini, *Over the Human*, p. 50, emphasis mine.

credo is "back to the things themselves," then Marchesini's version is "back to the animals in interaction"'.[1577] Similarly, while traditional ethology has focused on studying animals by projecting a human gaze on them, zooanthropology considers that '[r]elations with animals modify human beings. Animals have the capability of changing human beings, of instructing human beings, of showing human beings things that we don't already know. They can actively build new elements in human beings.'[1578]

Animal epiphanies can thus be described as a series of evolutionary and anthropological events repeated throughout human history, which stabilise into particular forms of human technology, art, and culture. Marchesini goes so far as to suggest that the term '"evolutionary space" [is] another way of calling animal epiphany'.[1579] This means that, concretely, animal epiphany is one of the driving forces behind human evolution: our interactions with animals have brought us where we are today.

However, we would be mistaken in reducing animal epiphany to the evolutionary past of human culture. Indeed, we should also understand animal epiphanies (in the plural) as a series of events repeated in the course of individual human lives. In Marchesini's view, encountering other animals in childhood is therefore an ideal way to develop one's personality and one's sense of self. With this in mind, it is no wonder that the fables and stories we tell children are full of animal characters. That said, the beneficial role animals play in our lives is most evident in our encounters with real, flesh-and-blood animals. Marchesini explains that '[t]he presence of animals […] plays a beneficial psychological role, as is abundantly demonstrated in communities of the elderly, *those with autism*, apathetic youth, and those in rehabilitation. It is here that the presence of synanthropic animals takes on a value that goes beyond its purely ecological meanings to enter directly into our psychological integrity'.[1580]

Whether through animal-assisted therapy or simply co-presence and co-living with nonhuman animals, autistic people tend to develop new ways of being and becoming-human-with-animals. These relational practices have been largely documented before, and we could describe proximity to animals as a core component of autistic ethologies and autistic culture. For instance, Temple Grandin famously explained that 'animals make us human'[1581] whereas

[1577] Jeffrey Bussolini, 'The Philosophical Ethology of Roberto Marchesini', *Angelaki*, vol. 21, no. 1 (2016), p. 20.
[1578] Marchesini, cited in Bussolini, Chrulew and Buchanan, 'Entering Theriomorphic Worlds', p. 267.
[1579] Marchesini, *Over the Human*, p. 111.
[1580] Roberto Marchesini, 'Animals of the City', *Angelaki*, vol. 21, no. 1 (2016), p. 83, emphasis mine. It should be noted here that, in the autistic community, the formulation 'person with autism' is largely considered pathologising, because it implicitly suggests that there could be such a thing as an autistic person *without autism*, i.e. an autistic person cured of their autism. The preferred language in this context is identity-first, for instance: 'autistic person'. That said, older generations of autism activists might at times prefer sticking with person-first language due to the political work the notion performed in their time.
[1581] Grandin and Johnson, *Animals Make Us Human*.

Dawn Prince-Hughes describes the ways gorillas taught her about human sociality (see Chapter 4). In this regard, the autistic ways of becoming-human-with-animals reveal unique features.

According to Marchesini, the traditional relationship between humans and other animals is one of *use*. This corroborates my conclusions in Chapter 4. To remedy this, the practical applications of zooanthropology entail a more respectful gaze on animals and a form of anthropo-decentralisation.[1582] But on an ontological level, zooanthropology believes that multispecies relations grow from a place of curiosity and desire for relationality: even within relations of use and instrumentality, 'other elements […] overflow the element of use'.[1583] As such, it would appear that some humans (e.g. autistics and other ethodivergents) might be better at acknowledging this fundamental proximity than others (e.g. ethonormative humans).

This is not to say that autistic people are essentially and universally kinder to animals and always more prone to defend them against exploitation. As we have seen in Chapter 4, affinity with animals has sometimes turned into particularly violent practices of exploitation, such as the zootechnical devices designed by Temple Grandin.[1584] As such, '[h]ere too it is necessary to insist on a precise distinction between uses of animals, such as classic zootherapy that does not move away from the usual methods of reification of animals, and *animal presence*, with an integral dignity[,] the beneficial effect of which comes from a lived exchange and not from a use'.[1585]

Autistic engagement with nonhuman animals often seems to blend elements of use and presence. This might suggest that animal epiphany is not always so incompatible with animal exploitation as Marchesini believes. Alternatively, we might argue that the relationships between autistic humans and nonhuman animals do not always follow from animal epiphanies. Nonetheless, by attuning ourselves to our desire for animal presence, we might still learn to resist an ethonormative understanding of ourselves and our relationships with other animals.

Indeed, while '[w]e have always been hybrid',[1586] most humans strive to portray themselves as autopoietic, autonomous beings. An animal epiphany, when it happens in an individual's life, is often denied the potentiality of affecting them fully. Dissident humans are constantly called back onto the path of typical humanity, defined and regulated by a form of ethonormativity. When divergent humans, such as autistics, decide to forsake their human

[1582] See Marchesini, *Over the Human*.
[1583] Marchesini, cited in Bussolini, Chrulew and Buchanan, 'Entering Theriomorphic Worlds', p. 267.
[1584] While, in the preface to *The Philosophical Ethology of Roberto Marchesini*, Boria Sax draws a parallel between Temple Grandin and Roberto Marchesini's ideas about becoming-human-with-animals, he also emphasises their 'different practical conclusions […]. Grandin takes what is conventionally called an "animal welfare" position, while Marchesini derives, in practice if not in theory, something like "animal rights"". Boria Sax, 'Zootropia, Kinship, and Alterity in the Work of Roberto Marchesini', *Angelaki*, vol. 21, no. 1 (2016), p. 8. Many have even noted that Grandin's views and practices legitimise, rather than resist, the exploitation of nonhuman animals.
[1585] Marchesini, 'Animals of the City', p. 83.
[1586] Marchesini, *Over the Human*, p. 113.

privilege (as much as is possible) and choose to become animal (or perhaps, a(û)nimal) with other animals, the animal epiphany might have corrosive and subversive effects. This is often the target of a particular form of social disapproval, part of ethonormativity. In an ethonormative mindset, animal epiphany is indeed frowned upon: *typical humans* should not spend so much time in the presence of animals and should instead attempt to connect with fellow humans.

In that sense, when they turn to animals and experience animal epiphany and animal presence, autistics can sometimes resist ethonormativity and forsake a part of their human privilege. But while, on an ontological level, 'animals make us human', in the social ontology of neuro/ethotypicality, autistic people have never been (properly) human. This forsaking of one's humanity enacted by the embrace of animal presence might seem all the more strategic as autistic people have been the target of violent forms of dehumanisation and animalisation. But given the absurdity of the humanist rejection of animality, many autistics would rather be divergent animals than typical humans:

> [our] affinity to animals is the outcome of the awareness that we share a common ground—the animal that therefore I am, using Derrida's words—namely, a shared type of life […]. In animal otherness I find myself, I feel at home. And I know it recognizes me, interacts with me and expects me to react. This is not the case with any other interaction we have with the world: only animals recognize each other as neighbours.[1587]

Many autistic humans indeed report experiences of deep co-presence and 'reciprocal self-recognition'[1588] with animals. This is, for instance, the case of Dawn Prince-Hughes, who spent much time in the company of gorillas at the Seattle Zoo (see Chapter 4). As she learned about the gorillas and their ways of being, Prince-Hughes also learned about human sociality and, most importantly, about her own autistic way of being human. Prince-Hughes's narrative shows us that turning to animals and having an animal epiphany opens a field of potential for *becoming human* otherwise, namely, for *becoming autistic*. Again, this experience of animal epiphany is certainly not unique to autistic humans, but it is likely that autistic (and/or otherwise marginalised) experiences of animal epiphanies present unique features. With this horizon of becoming autistic through animality, we can learn to resist the speciesism-ableism nexus, which urges us to overcome disability, recover from our autism, and join the ranks of the typical humans. In that way, the search for animal epiphany in autistics might have the potential to foster what I call the autistic epiphany.

[1587] *Ibid*., p. 48.
[1588] *Ibid*.

**

Epiphany is a recurring theme in the first-person narratives of autism by autistic people. In a text entitled 'Becoming Autistic, Becoming Disabled', an anonymous author explains that they went through 'a moment of epiphany', in which they 'realize[d] perfect links between the traits of autism and the life [they] had lived'.[1589] Others have reflected on the discovery of the autism diagnosis as a form of validation, saying for example that 'suddenly you have an epiphany. There are others like you, you aren't defective or wrong, it's not your fault. You're just different. That's you.'[1590] This autistic epiphany, so to speak, is not only a first-person experience, but it has also been described as situations in which peers have a realisation that you might be autistic.[1591]

If animal epiphany was 'a revelation of a possible and desirable existential dimension whenever a human being encounters an animal otherness and its different life condition',[1592] then 'autistic epiphany' could be tentatively described as a revelation of a possible and desirable existential dimension whenever a human being encounters an *autistic* otherness and its different life condition. But of course, in the narratives of autistic people, autistic epiphany is not always described as the revelation of a desirable condition; sometimes, it is simply a matter of finally putting words to one's experience, as traumatic or debilitating as it might be.

Whereas Marchesini's understanding of animal epiphany stems from the perspective of a relatively 'typical' human – white, male, citizen of a European nation – the lives of more marginalised humans are often made of epiphanies of a different kind. While the encounter with an autistic otherness can be the source of desire, this presupposes that the autistic other in question is privileged enough to unmask safely and taste their own autistic joy.[1593] For most of us, though, having an autistic epiphany has taken the form of the bittersweet realisation that one's experience of feeling out of place is rooted in oppression. For instance, in his memoir about 'special education', autistic writer Tito Mukhopadhyay recalls:

> At the lake I had an epiphany. There is a pristine world above the water and a murky, reflected one below. There is the typical domain of typical beings who aren't doubted or tested repeatedly, and who have a real place in education, work and decision making. And then there is the "special" domain of "special" beings, where all is shadow, formless and wobbling, and hope itself lies

[1589] Anonymous, 'Becoming Autistic, Becoming Disabled', in *Loud Hands: Autistic People, Speaking*, ed. Julia Bascom, Washington: The Autistic Press, 2012, p. 155.
[1590] Alison, 'Validated', in *Being Autistic: Nine Adults Share Their Journeys from Discovery to Acceptance*, ed. Caroline Hearst, s.l.: AutAngel Community Interest Company, 2015, p. 19.
[1591] See, for example, Prahlad, *The Secret Life of a Black Aspie*, p. 150.
[1592] Marchesini, *Over the Human*, p. 150.
[1593] Unmasking one's autism has been shown to directly contribute to overall wellbeing. See Louise Chapman, Kieran Rose, Laura Hull, and William Mandy, '"I Want to Fit In… But I Don't Want to Change Myself Fundamentally": A Qualitative Exploration of the Relationship Between Masking and Mental Health for Autistic Teenagers', *Research in Autism Spectrum Disorders*, vol. 99, no. 102069 (2022).

> sodden and submerged. The ducks, as social as fowl can be, dismiss their own reflections. Who needs illusory wings? Standing there, watching the ripples on the surface of the lake, I learned the biggest lesson of all: nothing will create substance out of shadows.[1594]

Mukhopadhyay's epiphanic narrative does not have a happy ending. It tells the story of an ethonormative world in which nonspeaking autistic people like him are never expected to perform like a typical human and are therefore excluded from the category. In his encounter with the ducks, Mukhopadhyay learns a lesson about humanity. Unbothered by matters of reflection, representation, and symbolic validation, the ducks embody an alternative to the humanist-neurotypical (i.e. ethonormative) social order. Because they point to his own negative experience in special education, the ducks do not spark desire in Mukhopadhyay. But they might foster refusal and resistance. The kind of animal epiphany Mukhopadhyay experiences is therefore not directly *affirmative*, but indirectly so: his insight – 'nothing will create substance out of shadows' – is not only a lament, but an opening: a form of ethical and existential reorientation. After this revelation, it becomes clear to Mukhopadhyay that becoming human might be a lost cause and that the power of attraction of the 'human' category functions as a tool of neuronormativity. Mukhopadhyay's experience, which we could call a *critical epiphany* or an *epiphany of refusal*, fosters the kind of 'fugitivity' put forward by Fred Moten and Stefano Harney: the refusal of incorporation into hegemonic systems.[1595]

What makes an autistic epiphany like Mukhopadhyay's so intense, contrary to other forms of disabled epiphanies, is perhaps that autism so often goes unnoticed throughout childhood and through part, if not most of, adulthood. And even when it is, as with Mukhopadhyay, who was diagnosed at the age of three, the promise of becoming human keeps escaping, and the difference from the norm keeps prevailing. On the contrary, the realisation that one is different from others when one is physically disabled has been described in less emphatic terms. Sunaura Taylor, for instance, remembers that '[b]eing disabled since birth, I knew no other form of embodiment. I was so used to being me that the realization I had during that third crash to the floor quickly dissipated. Being physically different continued to be abstract—so abstract that on a conscious level it was of little consequence to me'.[1596]

It might be that autistic epiphanies are more intense because autism is frequently invisible, misdiagnosed, or socially obscured – sometimes even after diagnosis. But even when it is recognised, autism remains entangled in systems of partial exclusion and conditional belonging. Thus, having an autistic epiphany might not simply be about putting

---

[1594] Tito Rajarshi Mukhopadhyay, *Plankton Dreams: What I Learned in Special-Ed*, London: Open Humanities Press, 2015, p. 83.
[1595] See Fred Moten and Stefano Harney, *The Undercommons: Fugitive Planning and Black Study*, Wivenhoe, New York, and Port Watson: Minor Compositions, 2013.
[1596] Taylor, *Beasts of Burden*, p. 14.

words to one's difference, but about abandoning one's desire for normality – that is, for becoming (a typical) human. In this sense, the autistic epiphany (among other forms of critical disabled epiphanies) can foster other forms of epiphanies, such as critical animal ones. Sunaura Taylor remembers that '[t]he epiphany about meat remained with me longer than the epiphany about my own body'.[1597] In Taylor's life – as well as in the experience of many human children – the epiphany about meat was 'the moment I learned meat was made from animals [and] was awakened to something hard to forget: cruelty'.[1598] But while most children experience epiphanic experiences regarding meat, their charge and intensity are likely enhanced by the awareness of one's own marginalisation.

Precisely because autistic people experience forms of exclusion and marginalisation that are essentialised and naturalised, they might be more prone to experiencing the kind of 'epistemic epiphany'[1599] that Sunaura Taylor went through when learning about the origin of meat. Because of marginalisation, their embodiment produces ways of knowing that might be more attuned to other forms of oppression. This echoes the feminist logic of situated knowledges, where having a feminist, sexual, or antiracist epiphany (among others) can be an epistemic resource for coalitional knowledge. However, this is not automatic. The complexities of intersectional thought and internalised oppression testify to the non-innocent nature of situated knowledge (see Chapter 5).

How can epiphany be used as a disabled, neurodivergent, and ethodivergent tool for fostering fugitivity and refusal while creating a sense of desire for other forms of life? Karen Barley, a provider of professional development in education research, uses storytelling to push teachers to transform their beliefs and attitudes towards disability.[1600] She recalls many 'lightbulb moments',[1601] or epiphanies, that helped her transform her teaching practices. As for me, through a practice of peer-diagnosing dozens of autistic people over the years, I have had the chance to witness a series of autistic epiphanies, which have led many to explore their own ways of becoming autistic. Due to the complex and numerous epistemo-political stakes raised

---

[1597] *Ibid*.

[1598] *Ibid.* Another example of critical animal epiphany is offered by one of the fictional characters Michael Lundblad studies in 'Disanimality: Disability Studies and Animal Advocacy', Naomi, who likens the discovery of Peter Singer's *Animal Liberation* to an epiphany. See Lundblad, 'Disanimality', p. 790; or Lundblad, *Disanimality*, Chapter 1, 'Posthumanist Animality', para. 8.

[1599] Rosemarie Garland-Thomson, 'Building a World with Disability in It', in *Culture – Theory – Disability: Encounters between Disability Studies and Cultural Studies*, ed. Anne Waldschmidt, Hanjo Berressem, and Moritz Ingwersen, Bielefeld: Transcript Verlag, 2017, p. 56.

[1600] Karen Barley, 'Illuminating the Epiphany: Reflecting on Disability and Inclusion in Education', in *The Routledge International Handbook of Autoethnography in Educational Research*, ed. Emilio A. Anteliz, Deborah L. Mulligan, and Patrick Alan Danaher, pp. 13–22, London and New York: Routledge, 2022.

[1601] Barley, cited in Deborah L. Mulligan, 'Section 1: Enhancing Teaching and Teacher Education with Autoethnography: Introduction', in *The Routledge International Handbook of Autoethnography in Educational Research*, ed. Emilio A. Anteliz, Deborah L. Mulligan, and Patrick Alan Danaher, London and New York: Routledge, 2022, p. 11.

by this practice, I will not engage in further descriptions of it in this thesis. Besides, in this subsection, I am more interested in the kind of epiphany that brings autism and animality together. Just like Berenice Vargas García, I believe original forms of a(û)nimal conspiracies can emerge from this fugitive intersection.

b) A(û)nimal Therianthropy: Towards Coalitional Resistance to Ethonormativity

> [D]esire [is] an intentional structure or a verbal form that calls for being translated in an action through the contents, that is through the specifications. Desire is a verb, an action in potential or made explicit, a transitive or reflexive motor, not an object or any other form of target.[1602]

Epiphanies are converted into actions through desire – and perhaps, sometimes, through anger. They are not only epistemic structures, but existential ones: they call for a transformation of the self. In Roberto Marchesini's philosophical ethology, desire constitutes one of the fundamental predicates of animality.[1603] More than the expression of a lack, as it was traditionally understood in philosophy, desire sustains and orientates our ways of opening to the world and to otherness. In that sense,

> desire is not properly a need but rather a verbal predicate, that which sustains the proposition of thought or of behavior. Desire is the hidden orientation of a child that collects shells on the beach, of a cat who chases butterflies in a field, of a mother with caring attention toward her child. Collecting, chasing, caring are none other than many variations of desire, not moved by different targets (the shells, the butterflies, the child) but of the a priori orientation of the individual. Desire is not, therefore, moved by the objectives but by the specific and foundational state of the animal-being.[1604]

If we are to follow Marchesini, then it appears that when one experiences animal epiphany, one is not moved by the target object (the animal in question), but by one's *a priori* orientation towards otherness and animality. We do not imitate the behaviours that animals perform, as if we had the same bodies; instead, there is an interpretation of the behaviour from the perspective of one's human body, which Marchesini calls 'zoomimesis'. '[T]he cultural product is a hybridization between humans and animals'.[1605] This is how interacting with

[1602] Roberto Marchesini, 'Philosophical Ethology and Animal Subjectivity', *Angelaki*, vol. 21, no. 1 (2016), p. 246.
[1603] See Roberto Marchesini, *Etologia del desiderio: Riscoprire la propria animalità*, Torino: Lindau, 2023.
[1604] Marchesini, 'Philosophical Ethology', p. 246.
[1605] Marchesini, cited in Bussolini, Chrulew, and Buchanan, 'Entering Theriomorphic Worlds', p. 268.

animals ‘makes us human’ at the same time as it pushes us ‘over the human’. Marchesini calls this process therianthropy.

With the concept of the ‘therianthropic being’, Marchesini designates ‘a human being changed through the dimensional hybridization that takes place in the encounter with the non-human’.[1606] Following the epiphanic event, a ‘transformation of the human being’[1607] happens, through which the human ‘assum[es] non-human predicates’.[1608] For this process to take place, two elements are needed: ‘(a) the passive or imitative use of animal performances, and (b) […] the coevolutionary dynamics that create reciprocal dependence between the species’.[1609]

As such, therianthropy blends a perceptual-interpretative gesture with a somatic one. To speak like Uexküll, it modifies one’s Umwelt by transforming both our modes of perception and movement. But beyond the ‘functional connection’[1610] of the Umwelten, the epiphany also leads to an existential, almost spiritual, revelation, which can be understood along the lines of the sublime. It often involves ‘a rite of possession [or] a trance’,[1611] and therefore constitutes an ‘initiation’[1612] into theriomorphic worlds. As we will see again below, Marchesini’s philosophical description of therianthropy aligns with the descriptions given by members of the therianthropy movement.

At this stage, I am interested in following Marchesini’s zooanthropological idea that human qualities (language, culture, arts, technology, etc.) have been inherited from nonhuman animals. In Marchesini’s view, the observation of bird flight constituted the original scene of the human desire for flying. The development of aviation should thus be understood not so much as the result of human – *all too human* – creativity and intelligence, but as the result of an epiphanic encounter:

> If the epiphany is the moment when the human being discovers the theriomorphic possibility in the encounter with the non-human animal, imagining itself as theriomorphic, and if mimesis is the act of representing this new being, which is neither man nor the heterospecific’s copy, *techne* is the moment in which this over-human being is confronted with its new ontological status, namely, with its irreversibly changed perspective.[1613]

Marchesini’s reconceptualisation of technology offers us a new understanding of the human. Instead of defining culture and technology as proper predicates of the human, animal epiphany and therianthropy emphasise the relational nature of anthropopoiesis. This notion

[1606] Marchesini, *Over the Human*, p. 8.
[1607] *Ibid*., p. 155.
[1608] *Ibid*., p. 149.
[1609] Roberto Marchesini, ‘The Theriosphere’, *Angelaki*, vol. 21, no. 1 (2016), p. 118.
[1610] Marchesini, *Over the Human*, p. 104.
[1611] *Ibid*., pp. 104–5.
[1612] *Ibid*., p. 105.
[1613] *Ibid*., p. 110.

'represents the human becoming, that is, the result of a process of ontological hybridization with non-human otherness'.[1614] It is an act of self-creation through which the human extracts itself from its biologically determined, species-specific predicates.

In that sense, Marchesini's concept of theriomorphism can help us better understand what makes therianthropy so unique. While antispeciesist activists and animal studies scholars are often accused of anthropomorphism, this accusation tends to rely on the assumption that the qualities projected or perceived in the animal were human in the first place. With the notion of theriomorphism, Marchesini turns the problem on its head, reversing the directionality of the human-animal vector. For that reason, Jeffrey Bussolini proposes that 'theriomorphism is an antidote or conceptual alternative to excessive claims of anthropomorphism that still maintain the presumption and centrality of the human'.[1615]

This is why animal epiphany not only theriomorphises the human, but also allows it to see its own humanity: '[a]nimal epiphany is precisely this non-narcissistic mirroring, which, on the one hand, allows for the birth of new existential dimensions and, on the other, gives way to a process of doubling that allows the human being to see itself'.[1616] Therianthropy, as the embodied and existential practice that follows the epiphanic and mimetic process, does nothing else: it reveals the human as an animal being that evolution differentiated from other species, but also allows it to overcome its narcissism by recognising its belonging and constitution within the relational field of ethodiversity. As Marchesini beautifully concludes, 'I find my humanity in the animal that therefore I am.'[1617]

To practise therianthropy, in that context, first requires acknowledging our debts to nonhuman animals. But while many of the technopoietic results of animal epiphany and theriomorphism – such as aviation, to return to Marchesini's example – are developed in the sole interest of humans, the kind of therianthropy I am interested in requires new forms of connection and caring for and with animal others. To do so, I turn to the therianthropy movement as a site of a(û)nimality and ethodivergent resistance.

Therianthropy is not only a philosophical figure that can help us envision new modes of becoming animal, but also a form of transspecies dis/identification and, as I will argue, an ethodivergence. As Venetia Robertson, a specialist of the topic, explains, '[t]he word "Therianthrope" combines the Greek for man and beast, and in this context it signifies humans

[1614] *Ibid*., p. 148.
[1615] Jeffrey Bussolini, 'Recent French, Belgian and Italian Work in the Cognitive Science of Animals: Dominique Lestel, Vinciane Despret, Roberto Marchesini and Giorgio Celli', *Social Science Information*, vol. 52, no. 2 (2013), p. 200.
[1616] Marchesini, *Over the Human*, p. 49.
[1617] *Ibid*.

who see themselves on some psychological and/or spiritual level as *non-human* animals; in essence, they have an animal-human identity'.[1618]

Therianthropy also refers to a subcultural movement, an online community, a set of psychological or spiritual beliefs, and a blend of somatic practices related to animality. Developed online in the 1990s,[1619] the movement has seemingly gained traction in recent years. However, it remains under-researched in the academic context. In the existing literature, two main perspectives have been opposed: the psychiatric perspective, which views therianthropy as a mental illness, and the anthropological perspective, which studies therianthropy as a form of spirituality. My contribution to the discussion draws from research rooted in the second perspective while extending it to the realms of philosophy, critical theory, and critical neurodiversity studies.

Indeed, many therians (short for therianthropes) believe that the community is largely made up of autistic people,[1620] and recent empirical evidence (using the Autism Quotient) shows cognitive similarities between therians and autistic people.[1621] This hypothesis could also be corroborated by the fact that many online communities (fandoms, forums, etc.) in the 1990s and early 2000s were developed by autistic people.[1622] This can be explained by the need for asynchronous virtual spaces of socialisation where diagnosed and non-diagnosed autistic people can gather around special interests and escape neuronormative forms of social communication. As such, online communities are now recognised as a large part of autistic culture. A similar sentiment can be found in the ways therians themselves describe the benefits they draw from their online connections:

> Although we may be separated by thousands of miles, through the Internet and this newsgroup, we are connected. We become a pack, a virtual family, a collection of individuals with common feelings, ideas and visions. And the loneliness, the aching for contact, is eased just a bit more because, even if some of us do spend our weekends alone <mournful stare into the distance> we can never be truly lonely.[1623]

[1618] Venetia Laura Delano Robertson, 'The Law of the Jungle: Self and Community in the Online Therianthropy Movement', *The Pomegranate*, vol. 14, no. 2 (2012), p. 257, emphasis in original.
[1619] See Venetia Laura Delano Robertson, 'The Beast Within: Anthrozoomorphic Identity and Alternative Spirituality in the Online Therianthropy Movement', *Nova Religio*, vol. 16, no. 3 (2013), p. 15.
[1620] Robertson, 'The Law of the Jungle', p. 274.
[1621] See Helen Clegg, Roz Collings, and Elizabeth C. Roxburgh, 'Therianthropy: Wellbeing, Schizotypy, and Autism in Individuals Who Self-Identify as Non-Human', *Society & Animals*, vol. 27, no. 4 (2019), pp. 403–26. Some also report a proximity between therianthropy and plurality, namely 'the state of having multiple headmates collectively sharing a single body', a phenomenon traditionally related to the psychiatric diagnosis of 'dissociative identity disorder'. See, respectively, Pluralpedia, 'Plurality', last modified 12 April 2025, accessed 3 June 2025. https://pluralpedia.org/w/Plurality; Strill, 'Are You a Therian?', *Project Shift*, 2008. https://web.archive.org/web/20130403025433/http://project-shift.org/are-you-a-therian/.
[1622] See Silberman, *NeuroTribes*.
[1623] Robertson, 'The Law of the Jungle', p. 264.

However, because the therianthropy movement is still young and marginal, there is still little research on the role and weight that autism plays in it. This subsection provides a theoretical contribution to that question. In this final moment, I examine the extent to which therianthropy as practised in the eponymous movement aligns with Marchesini's philosophy, and how it might help us foster coalitional forms of becoming autistic, becoming animal, and unbecoming human.

Admittedly, therians rarely describe their theriotype as something they 'become' and instead emphasise that it is their 'true nature'.[1624] Yet their descriptions echo current narratives and debates animating trans* studies and movements,[1625] where 'born this way' narratives are being increasingly challenged.[1626] As some have noted, transness is not a linear journey but rather an open and relational field of becoming.[1627] In this sense, I suggest with Robertson that there *is* indeed a form of becoming animal at play in the subcultural and existential practice of therianthropes.[1628] Interestingly, 'latent' or 'dormant' therians – individuals who are not yet fully aware of their theriotype – tend to describe the moment of realisation as an 'awakening',[1629] a term oddly similar to Marchesini's notion of epiphany.

Yet, while it would be possible to liken the therian awakening to the animal epiphany, its links with the *autistic* epiphany are harder to demonstrate. More empirical research is needed to determine whether being initiated into therianthropy and having a therian awakening can lead non-diagnosed autistics to an autistic epiphany, and vice versa. It would also be interesting to measure whether self-diagnoses, peer-diagnoses, and official diagnoses, alongside participation in the neurodiversity movement, result in varying degrees of involvement in the therianthropy movement.

In the absence of such data, it might be more interesting here to explore the link between subcultural therianthropy and the kind of theriomorphism described by Marchesini. As Maria Hylberg aptly notes in her PhD thesis, 'theriomorphism, like animism and anthropomorphism, risks biasing specific species knowledge'.[1630] This is true because therianthropy relies on various kinds of discourse and knowledge about the animal species one adopts as a theriotype, therefore

[1624] See Robertson, 'The Beast Within'; Strill, 'Are You a Therian?'.
[1625] See Robertson, 'The Law of the Jungle', pp. 274–5; Timothy Grivell, Helen Clegg, and Elizabeth C. Roxburgh, 'An Interpretative Phenomenological Analysis of Identity in the Therian Community,' *Identity: An International Journal of Theory and Research*, vol. 14 (2014), pp. 113–35. With Robertson, we should add to the comparison that therians often report experiences of 'species dysphoria', making them prototypical examples of 'trans-species' becoming. Robertson, 'The Beast Within', p. 18.
[1626] Avgi Saketopoulou and Ann Pellegrini, *Gender Without Identity*, New York: New York University Press, 2024; Paul B. Preciado, *Dysphoria Mundi: A Diary of Planetary Transition*, London: Fitzcarraldo Editions, 2025.
[1627] See, for example, Chen, *Intoxicated*, pp. 130–1.
[1628] Robertson, 'The Beast Within', p. 20.
[1629] *Ibid*., p. 18.
[1630] Maria Hylberg, *Tänk Om: Förskolebarns filosofiska berättanden om och med andra arter*, PhD thesis, Stockholm University, forthcoming, p. 96. I translated this and all later citations of this reference from Swedish.

running the risk of projecting one's human perceptions (and sometimes misrepresentations) on it.[1631] This hypothesis is radicalised by Iván Avila, who reports that he has

> come to the conclusion that many therian practices are, in essence, speciesist. Not only in the sense that they caricature the complex lives of nonhuman animals, but also because, by affirming an identification with alterities previously constituted as "chicken", "dog", "panther", or any other, they contribute to producing them in contrast to the human, in accordance with the values of the prevailing order. In this way, they reinforce a status quo of disposable, subordinate, and exploitable lives.[1632]

Evidence of anthropomorphic and/or speciesist representations can be found in the prevalence of canid and feline theriotypes instead of, for instance, marine, reptile, insect, or avian species.[1633] This ubiquity of charismatic, 'aesthetically-pleasing'[1634] animals, which are also biologically closer to humans, suggests that therianthropy is highly dependent on the social symbolism of animality. For instance, 'lone wolf' narratives are widely reported by Robertson.[1635] While this might be explained by the large prevalence of neurodivergent people in the community – being marginalised at a social level could lead one to identify with a species commonly described as solitary – this also comes with the risk of species-specific reductions and anthropomorphic projections.

At the same time, as Hylberg reminds us, theriomorphism can also constitute 'a speculative and playful way of approaching and relating to other species'.[1636] Devin Proctor adds that, contrary to otherkinity and other forms of mythical and fantastic other-than-human identifications, therians 'have representations of their animal kintypes living in the world for comparison'.[1637] Moreover, therians have their own systems of knowledge on animals, which are drawn from 'psychology, physics, biology, metaphysics, and contemporary social theories'.[1638] As such, while therianthropic engagement with animals might, to some extent, reproduce anthropomorphism, it might also entail deep respect for, interest in, and connection

---

[1631] See Robertson, 'The Beast Within', p. 24.
[1632] Iván Darío Ávila Gaitán, 'Therian: animalidad negada y ficción de amor', *Desde Abajo: la otra posición para leer*, 27 February 2026 accessed 5 March 2026. https://www.desdeabajo.info/rotador-incio/item/therian-animalidad-negada-y-ficcion-de-amor.html. I translated this and all later citations of this reference from Spanish.
[1633] See, for example, Lupa, *A Field Guide to Otherkin*, Stafford: Megalithica Books, 2007; Devin Proctor, 'On Being Non-Human: Otherkin Identification and Virtual Space', PhD thesis, George Washington University, ProQuest (13810285), 2019, pp. 76–7.
[1634] Robertson, 'The Beast Within', p. 20.
[1635] See *Ibid*.
[1636] Hylberg, *Tänk Om*, p. 96.
[1637] Proctor, 'On Being Non-Human', p. 253. The term 'otherkin' refers to "a person who identifies as non-human on a non-physical level, be it spiritually, psychologically, or both'. See Therian-Kin Corner, 'Definition', n.d., accessed 6 June 2025. http://theriankincorner.boards.net/page/Definition. Contrary to theriotypes, which mainly encompass existing or extinct animal species, kintypes include, among others, elves, fairies, and aliens. Therianthropy and otherkinity are positioned under the umbrella-term 'alterhumanity'.
[1638] Proctor, 'On Being Non-Human', p. 254.

with, nonhuman animals. These may take the form of counter-normative technologies of speciation, where species-typical traits are blended with atypical ones. Particularly, if it is true that autistic people constitute large parts of therian communities, then it is likely that special interest and hyperfocus play an important role in therianthropy.

In this regard, we might want to nuance Ávila's criticisms of the therian movement on the basis of anti-neuronormativity. Ávila argues that love for animals does not justify the appropriation of (anthropomorphised) animality and that, on the contrary, 'the antispeciesist movement [should] learn to distrust those who claim to "love animals"'.[1639] While his argument is fully persuasive and directly aligns with my reading of autistic affinity with nonhuman animals in Chapter 2, I am concerned that Ávila's interpretation of the therianthropy movement reproduces the reductive gesture it claims to resist. Indeed, when he describes the therianthropy movement as 'one of the most recent forms of technologically mediated contempt for the richness of life on planet Earth',[1640] is he not missing a central part of the equation?

I suggest it matters to uncover the deep neurodivergent logics at work in the therianthropy movement. It is likely that, for some neurodivergent people, therianthropy has become a way to deal with dehumanisation and to express one's disidentification with the category of the human. That this practice is not automatically liberatory in an animal rights perspective, or that it might reinforce the human/animal dualism makes no doubt, but erasing the role that neurodivergence plays in the subcultural landscape of therianthropy risks oversimplifying the disanimal affects and logics at play here. It is not clear to me that, by thinking of themselves as nonhuman (or more-than-human) animals, therians should necessarily oppose the human and the animal, as Ávila seems to believe. Given the widespread dehumanisation of neurodivergent people, this theriomorphic identification might instead play out, at least in some instances and for some people, as a form humanimalisation. Admittedly, I am not trying to make any sort of generalised claim here, for I am not part of the therianthropy movement, nor do I have access to thorough and international sociological analyses of it. However, I want to suggest that by discarding the movement as speciesist altogether, one might risk reproducing neuronormativity.

Notably, it is significant to understand that neuronormativity is directly at play in the public covering of the therianthropy movement and, as I will show below, in its activist treatment within LGBT+ communities too. It is true that, in recent years, the movement has faced significant backlash in the public sphere, in Latin America and beyond, notably from clinicians.[1641] Ávila is also right to note that the movement has operated as a 'straw man, with

[1639] Ávila, 'Therian'.
[1640] *Ibid*.
[1641] See Jesús Maturana, 'Therians: The Viral Identity that Challenges the Boundaries between Human and Animal', *Euronews*, 28 February 2026, accessed 9 March 2026.

the aim of promoting a new reactionary offensive against transfeminist, queer, crip, decolonial and related movements and practices'.[1642] However, his gesture seems no less problematic when he reduces therianthropy to a 'spectacle' or an 'arbitrary gesture', thereby negating its potential emergence as an 'effect of the materiality of [neurodivergent] existence and of its historical conditions'.[1643]

The sense of 'insult'[1644] Ávila reports feeling when being asked about his opinion on therians is revealing of his position of exteriority to the movement and perhaps, to some extent, of an unquestioned neuronormativity. Why would thinking about therianthropy 'underestimate the problems to which [he] dedicate[s] his work'?[1645] Is it the subcultural nature of the movement, its neurodivergent composition, or its media visibility that makes it unworthy of antispeciesist considerations? It is noteworthy that Ávila seems to conflate and essentialise therianthropy in the name of antispeciesist anti-essentialism: indeed, the photographs accompanying his article feature both therians and furries, but these movements and practices carry different histories, sociologies, and belief systems. It is troubling that, in his somewhat dualistic critique of optics versus materiality, Ávila is conflating two movements whose similarity relies on optics more than history or material logics.

Perhaps naively, I want to believe that the subcultural movement of therianthropy can be a source of inspiration in envisioning more respectful forms of becoming within anthropopoiesis. Drawing on Marchesini, we have seen that therianthropy largely relies on an embodied practice of theriomorphism. This applies to the therianthropy movement through the practice of adopting beast-like or animal-like qualities, whether at a mental, phantom, or physical scale:

> During a mental shift a Therian may report keener night vision, an enhanced sense of smell, a hunger for unconventional foods like raw meat, and increased agility. These shifts may be brought on by performing specific rituals, or they can be triggered unintentionally by a heightened state of emotion. […] A phantom shift is often invoked by a mental shift. In this case, therioside body parts are felt or sensed in the way a phantom limb may be felt by an amputee. […] Physical shifting entails the full transformation of the human body into the form of an animal, a literal rather than metaphoricshape-shift.[1646]

https://www.euronews.com/culture/2026/02/28/therians-the-viral-identity-that-challenges-the-boundaries-between-human-and-animal.

[1642] Ávila, 'Therian'.

[1643] *Ibid*.

[1644] *Ibid*.

[1645] *Ibid*.

[1646] Robertson, 'The Beast Within', pp. 20–2. The term 'therioside' refers to 'the aspect of a therianthrope (aka a therian, or were) that they feel is a nonhuman animal'. See Coyote, 'Therioside', *WikiTherian*, n.d, accessed 6 June 2025. https://pritisni.ctrl-alt-del.si/wikitherian20050325/Therioside.html.

According to members of the community, the zoomimetic practices we observe in therianthropy are not practices of imitation or appropriation, but practices of deep appreciation and hybridisation. Concretely, they are often restricted to the spiritual or mental scale, largely due to '[t]he [alleged] physical impossibility of transmogrification'[1647] – the literal and biological act or process of changing one's body to transition into another species – and the 'proscription' of discussions about physical shifts in parts of the community.[1648] Yet more and more commonly, at least on social media, therianthropy is first displayed through visible shifts in one's embodiment, performed by the addition of removable prostheses such as masks, tails, paws, etc., and somatic practices inspired by the one's theriotype (quadrobics, animal sounds, etc.).

Moreover, I follow Maria Hylberg in noting parallels between theriomorphic practices and Donna Haraway's piece of speculative fiction, 'The Camille Stories'.[1649] In this narrative, future humans biologically hybridise themselves with different animal species – for instance, by grafting butterfly antennae on their bodies – and acquire what Laura Restrepo-Giraldo calls 'cyborg Umwelten'.[1650] In these fictional communities, hybridisation and anthropodecentralisation are enacted in the hope of fostering a better understanding of animal otherness, as well as new forms of partnership and allyship towards endangered species. However, in contemporary therianthropic communities, theriomorphism is largely seen as an individual and spiritual practice, and as we noted, physical transmogrification is not common practice.

Because physical shifts are deemed impossible in most parts of the community,[1651] therians constantly remain in a state of in-betweenness. Their psychological or spiritual animality might not match their biologically human body, but through the different stages of one's therian journey, from awakening to theriomorphism, one is immersed in a space of renegotiation of the human-animal dualism and species categories.[1652] Indeed, as a process comparable to a rite of passage, the therian awakening first leads to a creative process of transition through which one must first undo one's previous human subjectivity and status, even

[1647] Robertson, 'The Beast Within', p. 22.
[1648] See, for example, Robertson, 'The Law of the Jungle', p. 270.
[1649] See Hylberg, *Tänk Om*, p. 96.
[1650] See Laura Restrepo-Giraldo, 'Cyborg Umwelt: The Practice of Speculative Fabulation as an Approach to Non-human Animals' Alterity', forthcoming. Another parallel between the Harawayan narrative and subcultural theriomorphic practices lies in the way Haraway ties up becoming-animal with trans* identities in this chapter. In her narrative, acquiring a more-than-human sensorium means adopting a different perspective on the world, including one's gender. Given that autism is also over-represented in trans communities, this might provide another connection between the Harawayan story and the practice of therianthropy. On the overrepresentation autism in trans* communities, see, for example, Varun Warrier et al., 'Elevated Rates of Autism, Other Neurodevelopmental and Psychiatric Diagnoses, and Autistic Traits in Transgender and Gender-Diverse Individuals', *Nature Communications*, vol. 11, no. 3959 (2020).
[1651] See, for example, Clegg, Collings, and Roxburgh, 'Therianthropy', p. 404.
[1652] See, for example, Robertson, 'The Beast Within', p. 24.

while retaining one's human body. For this reason, the state of in-betweenness can persist and come to define therian subjectivity itself.[1653]

This shows that therians not only perceive animals in an anthropomorphic light, but also perceive themselves in light of an animal otherness.[1654] In other words, therians do not care about animals only insofar as they look human; they care because animals teach them something new about themselves. In this sense, therianthropy and theriomorphism are symbolic, spiritual, and existential practices capable of challenging the humanist ontology. Indeed, as one therian remarks, '[a]ll humans are animals, but very few these days can look into themselves and find the animal remnants. We who believe in Spiritual Therianthropy feel those animal remnants very strongly'.[1655]

By performing a becoming animal, I suggest therianthropy can also help us with the urgent task of unbecoming human. As I noted, 'therian' comes from ancient Greek, meaning animal, wild animal, or even beast. Therians not only trade their human status for an other-than-human identity, but some of them also reclaim abjected and marginalised forms of animality. As Robertson reminds us, many therians believe 'they have a "beast within"'[1656]: could there be a better way to resist bestialisation than by reclaiming the stigma?

To claim a therianthropic identity or performance is therefore to side with the 'wild' animals rather than the normative and 'respectable' humans.[1657] This is true not simply because therians have a natural(ised) affinity for the beasts, but because, as therianthropic (but also possibly autistic, plural, and/or trans*) individuals, they 'are automatically set apart from mundane humans'[1658] and forcibly relegated into the category of the abnormal. Perhaps this makes them more prone to defend their animal counterparts. Indeed, recent research shows that therianthropic identification with nonhuman animals is predictive of support for animal rights and involvement in animal rights organisations.[1659] In this way, I follow posthuman abolitionist Patricia MacCormack in describing 'the queer weirdness of the therian ahuman' as a form of 'posthuman subjectivity'.[1660]

[1653] See, for example, Robertson, 'The Law of the Jungle', pp. 273–4.
[1654] It is noteworthy that most therians do not deny that they are also, in a certain sense, human. Moreover, therianthropy does not mean denying one's human responsibility in the systemic violence perpetrated against nonhuman animals, or one's responsibility for climate change. Rather, it is a process of imagining another kind of life for oneself and with other animals, both human and nonhuman.
[1655] Robertson, 'The Law of the Jungle', p. 265.
[1656] *Ibid.*, p. 272.
[1657] See Grivell, Clegg, and Roxburgh, 'Identity in the Therian Community', p. 118.
[1658] Robertson, 'The Law of the Jungle', pp. 268–9.
[1659] See, for example, Courtney N. Plante et al., '"Animals Like Us": Identifying with Nonhuman Animals and Support for Nonhuman Animal Rights', *Anthrozoös*, vol. 31, no. 2 (2018), pp. 165–77.
[1660] MacCormack, *The Ahuman Manifesto*, p. 93. In MacCormack's *Ahuman Manifesto*, claiming an ahuman position involves resisting human supremacy and forsaking human privilege, for instance, by adopting practices orientated towards abolitionist veganism and human extinction.

However, within society, but also parts of queer and trans* communities, therianthropy is often negatively associated with a form of madness[1661] and described as 'wild'[1662] or 'unreasonable'. Large parts of marginalised communities will happily reclaim their queerness, transness, freakiness, or cripness, but only under the condition that it does not jeopardise their human status. It is common in these communities to fight for one's humanity to be recognised, but in doing so, one might risk throwing one's more-than-human and other-than-human peers to the wolves or, more appropriately, to the humans. As Judith Butler explains, '[u]nder such conditions, striving to be human (and *not* animal) consists in the suppression and degradation of animality. This pathway for achieving a "dignified" human form thus requires a self-bestialization, that is, subjecting one's own animality to bad treatment—a vain but adamant effort to disavow the animality that humans share with other animals.'[1663]

Paradoxically, even within online therian communities, 'member rules [specify] that users should refrain from professing any magical powers or any identification with a deity or mythical entity, even if they believe this to be true, because "most people will never take you seriously"'.[1664] In my view, the existence of respectability politics within and out of the therianthropy movement demonstrates the importance, radicality, and subversive potential of theriomorphism as an apparatus of anthropodecentralisation. Indeed, as a '[l]iminal space [therianthropy might thus act as] a creative and dynamic arena where normative renditions of gender, sex, being, race, even species, are [potentially] dismantled and dismissed'.[1665]

This is particularly relevant to autistic and neurodivergent communities because, beyond the over-representation of autistic people in therian communities, becoming a(û)nimal, whether as an actual therian or simply by taking inspiration from their practices, can be a powerful way of reclaiming the subversive potentials of one's autism. Moreover, I would go so far as to argue that, while not all therians are autistic, therianthropic life can often be ethodivergent life and therefore destabilise the edifice of human supremacy. By refusing to perform their humanity in a typical way and choosing to embrace animality instead – often at the cost of social exclusion and violence – therians can perform acts of ethodivergent resistance.

As such, beyond the emphasis I placed on autism throughout this chapter, I suggest introducing therianthropy into our lives can help us foster coalitional forms of resistance against ethonormativity at large. However, for therianthropy to be truly subversive and radical, we might need to overcome the focus on theriomorphism as individual performance, which risks

[1661] See, for example, Clegg, Collings, and Roxburgh, 'Therianthropy', p. 421.
[1662] Grivell, Clegg, and Roxburgh, 'Identity in the Therian Community', p. 118.
[1663] Butler, 'Companion Thinking', p. 691, emphasis in original. In Butler's understanding, bestialisation is always a prejudiced gesture and not an act of subversion and reclamation; animalisation thus seems to be Butler's preferred term to designate self-reclaimed animality.
[1664] Robertson, 'The Law of the Jungle', p. 270.
[1665] *Ibid*., p. 275.

reinforcing neoliberal constructions of selfhood, and instead reframe it as a form of collective and biopolitical resistance to ethonormativity. Beyond matters of identity politics, therianthropic politics might also want to acknowledge and overthrow their historical whiteness by recognising the differential distribution of human privilege and ethonormative violence and investing in a(û)nimality as an explicit gesture of decolonisation and anthropodecentralisation. Finally, in order to really contribute to the antispeciesist project, the therianthropy movement might want to move beyond frameworks of affinity for nonhuman animals and interrogate its own speciesist and anthropomorphic assumptions in favour of an ethodivergent antispeciesism.

CONCLUSION

This final chapter explored the potentially counterintuitive idea that the most productive pathway to a more-than-human and more-than-neurological turn in neurodiversity studies may be found in a *return* to behavioural and ethological models of neurodivergence. After examining the scientific histories of pathologisation and bestialisation in behaviourism and ethological research, it suggested that an antispeciesist-posthumanist turn in neurodiversity studies begins with interrogating the very concept of species. To do so, it engaged in queer, critical, and posthumanist approaches to ethology, which can help us develop more encompassing understandings of embodied divergence beyond neurodiversity's neurocentrism. In this regard, the framework of ethodiversity embodied the key horizons envisioned throughout the thesis: the joint deconstruction of speciesism and neuronormativity, the constitution of coalitions between animalist and neurodivergent movements, the expansive, intersectional, and critical reframing of neurodiversity, and the reclamation of both human and nonhuman a(û)nimal positions.

General Conclusion

Summary of the Arguments

At the end of this study, what have we learned about autism and animality? In order to summarise my conclusions, it is useful to revisit the three main issues raised by the encounter between autism and animality: (1) the question of the relationships between autistic humans and nonhuman animals, (2) the question of the co-construction of autism and animality, as well as of speciesism and neuronormativity, and finally (3) the question of animal autism, understood both as autism in nonhuman animals and as the reclamation of autistic animality.

With regard to the relationships between autistic humans and nonhuman animals, I have shown that the affinity of the former for the latter, as exemplified by Christopher's interest in Wellington in *The Curious Incident of the Dog in the Night-Time*, can sometimes take the form of a 'species trouble' that reconfigures and potentially deconstructs the binary opposition, inherited from Western modernity-coloniality, between the (typical) human and the (divergent) animal. However, it also became clear that, in many cases, the idea of a natural affinity between the autistic humans (particularly women) and nonhuman animals is based on tropes of naturalness, purity, and innocence which, while investing the ecological framework of neurodiversity as biodiversity, consolidate the boundaries of species and speciesism.

In the context of discussions about veganism and speciesism, these two opposing positions take the form of what I have called neurodivergent veganism and neurodivergent speciesism. These concepts refer both to the mobilisation of neurodiversity discourse for or against animal liberation, and to the deployment of a set of theoretical and political positions on the animal question from neurodivergent perspectives. In order to avoid the temptation of innocence in this area, I have proposed an ethical approach to human-animal relations based on reflexivity, the rejection of essentialism, and a critical stance. While it is not a question of opposing in a binary and reductive manner supposedly homogeneous or natural attitudes for or against animal rights in autistic communities, it nevertheless seemed relevant to study how lived experiences of autism, as a marginalised social condition, may lead to the development of various forms of solidarity and allyship, if not even coalition movements between autistic and neurodivergent communities on the one hand, and antispeciesist movements and nonhuman animals themselves, on the other.

Similarly, the question of essentialism and identitarianism in these politics led me to outline two main theoretical models, which are again opposed: transspecies (neuro)kinship and ethodivergent solidarity. The first refers to the most common form of affinity today between autistic humans and autistic-like nonhuman animals. The second, on the contrary, emphasises the shared – albeit differential and asymmetrical – experience of ethonormativity and is based on a coalition model. While it seemed to me that transspecies neurokinship could be relevant in hypothetical contexts where autism (or any other form of neurodivergence) is attested in a nonhuman animal, this neurocentric logic remains potentially reductive, essentialist, and identitarian. In particular, it tends to make caring and solidarity conditional on similarity, thereby contravening the neurodiversity paradigm's invitation to celebrate differences, besides reinforcing the anthropocentric bias. In contrast, the regime of ethodivergent solidarity proposes to extend the scope of moral consideration and political alliance on the basis of resistance to ethonormativity, a biopolitical regime of normativity rooted in ideals of behavioural typicality in relation to hegemonic and intersectional constructions of species.

This reflection on the relationships of affinity and solidarity between autistic humans and nonhuman animals connects to the other two parts of my study: the co-construction of speciesism and neuronormativity, and the hypothesis of animal autism – and more broadly, animal neurodivergence. With regard to the co-construction of speciesism and neuronormativity, this was first revealed in Part I through parasitic readings of the post/humanist philosophies of Jakob von Uexküll, Kurt Goldstein, and Arnold Gehlen. The co-construction of modern conceptions of humanity and animality with various figures of autistic disability (dis/harmony, dis/order, and dis/ease, and later, with Niko and Elisabeth Tinbergens, dis/adaptation) allowed me to trace the history of a dishuman modernity in which talking about humans and animals always implies talking about disability.

Furthermore, highlighting the historical co-construction of ableism and speciesism in Western modernity-coloniality has allowed me to better understand the entanglement of speciesism and neuronormativity. It became clear that, through apparatuses of bestialisation and technologies of speciation, humanism imposes a fantasmatic ideal of the typical human as necessarily white, bourgeois, cisheterosexual, adult, able-bodied, and neurotypical. Through a critical, antispeciesist-posthumanist genealogy of neurotypicality, I have shown that social constructions of species are at the heart of the biopolitical apparatus of neurotypicality and the neuronormative paradigm.

In this sense, the political strategy of humanisation and the humanist political grammar of the neurodiversity movement may certainly prove effective in the short term and in a monothematic (i.e. non-intersectional) horizon, but they prove potentially counterproductive and even problematic when considered from a historical and intersectional perspective. The

illusion of liberation through humanisation promised by dishuman modernity, particularly in the context of neoliberal capitalism – which could be likened here to a form of dishuman *postmodernity* – deconstructs itself when we understand that the current neofascist resurgence is the direct conclusion of the era of neoliberal capitalism rather than its negation.

Admittedly, in the current context, everything pushes us to double down on the strategy of humanisation, and the use of strategic humanism might sometimes appear legitimate. Nevertheless, it should be noted that in the current context of fascist resurgence, it is the communities that benefit least from the logic of humanisation, namely racialised communities and nonhuman animals, that are most directly targeted. It is no coincidence that the most pernicious and overt racist and carnist discourses are now making a comeback on the international stage. While patriarchal and neuronormative ideas also seem to be regaining momentum, none of the underlying structures of domination – namely, racial capitalism and white supremacy, speciesist capitalism and human exceptionalism, patriarchal capitalism and the cisheteronormative nuclear family, as well as productivist, ableist, and neuronormative capitalism – have ever been overcome. The opposite idea is nothing short of an illusion.

In this context, the tonality of current positions among the dominant Left is particularly revealing and concerning: the liberal-humanist logic of progress seems to have succeeded in creating the illusion that everything has changed even when nothing really changes. It would indeed be tempting to believe that, following the various social conquests of the dominant, i.e. white and bourgeois, feminist and LGBT movements, the oppressive and inhuman foundations of humanist modernity have finally been overturned and replaced by more 'progressive' dynamics. Here again, the progressive veneer conceals the reality of oppression. In reality, the contemporary fascist resurgence reveals above all that racist, colonial, patriarchal, speciesist, and neuronormative dynamics were still at work and were perfectly accommodated by 'progressive' movements willing to play the assimilation game. No, we are not 'better than that'. Yes, *this* is 'America', and *this* is Europe. It always has been. Until we concretely dismantle the structures of capitalism, white supremacy, human supremacy, and neurotypicality, humanist political strategy will inevitably remain an assimilationist practice.

In the context of autism and animality, these analyses highlight the unique responsibility of a neurodiversity movement that not only appears to have been built on humanist-speciesist foundations, but whose racism and assimilability into neoliberal capitalism are well documented. By emphasising the fundamental role of speciesism and its direct interconnection with systems of oppression (including racist, capitalist, patriarchal, ableist and neuronormative systems), this study sought to deconstruct the illusion of the desirability of humanism, an ideology which, it should be remembered, lies at the heart of the development of colonial and capitalist enterprises in the West.

Against this logic, the prospect of a critical and subversive reclamation of (autistic) animality seems to offer a promising path forward. Following the guidelines of antispeciesist-posthumanist thinking, this 'more-than-human' and particularly 'animal' turn must address the question of neurodivergence in nonhuman animals and that of the animality of autistic humans. With regard to the question of (nonhuman) animal autism, I have focused on several key sites. I have shown that this matter is often addressed superficially, either in explicitly metaphorical fashion, as with Winthrop-Young and Espahangizi in Chapter 1, or in more subtly metaphorical or analogical ways, as in the discussions of autism-like and HsHa by veterinary psychiatrists and autism scientists, or in the community phrase 'all cats are autistic' in Chapter 6. In these various examples, we have seen that the figure of the autistic animal most often constitutes a figure of repressed constitutive otherness, which allows to produce discourse and knowledge about autism in humans without having any positive impact on the reality of the nonhumans in question. However, in the case of autism-like and HsHa diagnoses, the consequences of these discourses and practices are very real indeed: it is urgent for critical neurodiversity studies to reflect on the conditions and possible limitations of expanding the neurodiversity paradigm to nonhuman animals.

A first step in this direction has been taken with the resolute assertion that there is no valid reason to exclude nonhuman animals from the scope of neurodiversity, nor from that of autism – although the extension to nonhuman animals of a psychiatric concept like autism must be approached with particular caution. The *a priori* exclusion of nonhuman animals and animality from the field of critical autism studies and neurodiversity studies reproduces a humanist and anthropocentric gesture based on human exceptionalism. In doing so, the neurodiversity movement risks not only leaving the field open for psychiatrists to impose a hegemonic discourse on autism in animals, but also making these ideas available as tools of oppression against autistic humans themselves.

In this regard, the proposal for a subversive reclamation of the category (and phenomenon) of animality based on philosophical ethology has not only led me to examine the question of autism in nonhuman animals, but also to suggest that autism and neurodiversity more broadly are fundamentally animal rather than human phenomena. The need for an animal turn (at once antispeciesist and posthumanist) in neurodiversity studies is based here on an intersectional theoretical-political orientation, but it also contributes to the very logic of neurodiversity. Reclaiming the field of animality (studies) indeed allows us to circumvent the hegemonic co-construction of the figure of the autistic with those of the human and the animal, and thus to fight more effectively against the pathology paradigm and its in/humanist assumptions.

Beyond the more traditional logics of coalition, queersomatic practices such as autistic stimming and a(û)tistic epiphany and therianthropy have struck me as powerful examples of ethodivergent politics. They trace an existential and political horizon of reclaiming autistic animality beyond the normative iterations of dehumanisation and animalisation. Admittedly, these practices are socially costly, and this may be why the therianthropy movement has been presented until now as a spiritual and identitarian practice primarily carried out by privileged white communities, rather than as an activist and revolutionary practice. However, the decolonial, antiracist, and anticapitalist horizon of a(û)nimality outlined by representatives of Latin American critical animal studies, such as Berenice Vargas García, suggests radical potential. When the most privileged fringes of autistic communities learn to articulate anti-assimilationist policies, the social cost of animalisation (but also of neurodissidence and Madness) decreases, and animality (at least partially) ceases to function as an operator of dehumanisation for more marginalised populations.

LIMITS AND HORIZONS

This study comprises three independent projects whose specificities and boundaries truly appeared to me in the course of writing: (1) first comes a philosophical-historical genealogy of the entanglement of the figures of 'the animal' and 'the autistic' in dishuman modernity, from which follows the need for a critical (re)examination of the post/humanist tradition and the possibility of a philosophical-ethological reframing of animality. (2) Then comes a theoretical-political study of the entanglement of neuronormativity and speciesism, from which follows the need for coalitional resistance to humanism and an antispeciesist-posthumanist horizon. (3) Finally, the outlines of a phenomenological-biopolitical study of the ethologies and ecologies of autism are sketched out, with the idea of further entangling posthumanist and neurodivergent thinking and mapping their potential tensions and reconfigurations.

Each of these projects relies on a different set of theories and methods. The first project is the most classically philosophical, seeking to reframe the perspectives of philosophical biology, ethology, and anthropology through the corrosive methodologies of deconstruction and critical posthumanism. This project is developed in the first part of this thesis, but further research would be useful to articulate a more thorough conceptualisation of how neurodiversity (and ethodiversity) relates to the philosophy of life and animality studies. The second project relies on theoretical perspectives from gender studies, critical animal studies, and critical neurodiversity studies, particularly intersectional posthumanist feminisms and queer theory. This project is developed in the second part of the thesis and embodies its more public-facing

and political dimension. The third project, which constituted the initial horizon of my doctoral project, had to be largely cut out and postponed. Indeed, the prior development of historical and theoretical frameworks at the confluence of neurodiversity and the more-than-human was needed to develop phenomenological descriptions of autistic people's relation to the more-than-human, including materialities that go beyond animality, such as technologies, climates, microorganisms, etc. However, this initial horizon is already found in this thesis's mentions of posthumanist phenomenology, for example, around autistic bubbles, monotropic interest, and autistic stimming, and in the preliminary sketches of a posthumanist approach to autistic neuro- and microbiology.

The relatively fragmented dimension of this study, which may at first present itself as a limitation, follows a logic of ongoing differentiation. As I mentioned in the general introduction, it is certainly the result of a queer ethology of desire, a continued commitment to the more-than* orientations of neurodivergent thinking. It also walks the path opened by feminist posthumanist methodologies, in which the systematicity of traditional philosophy is substituted for the embodied, situated, and partial dimension of theory. That said, throughout the chapters, I have tried to grapple with concepts and ideas with the thoroughness and complexity that a doctoral thesis in philosophy requires. I hope that philosophers and feminist theoreticians alike can appreciate the value and importance of this hybrid perspective.

Other limits and horizons sustained by this thesis are found in the perspectives that were not central to my study, but which could be productively developed in the future to complicate and nuance my analyses. Intersectional perspectives constitute the main horizon that could be extended: further examining the role of race, class, and gender in neurodiversity and antispeciesist movements, particularly through the voices of racialised (notably Black, Brown and Indigenous), precarised, and sexualised autistic thinkers and scholars, would be helpful to further de-homogenise my descriptions of autism and further situate my proposals in decolonial and anticapitalist struggles. Another horizon that might be usefully engaged with in the future is the philosophy of psychology, which might provide instructive insights on the onto-epistemology of autism, particularly regarding the debates on neurocentrism.

The focus on autism throughout this thesis also constitutes a limit of this study, which I have discussed already. The observations and the theoretical framework I offered here stem from this historical context of, and my belonging to, the autistic community. While I do not feel fully qualified to speak on other neurodivergences, I acknowledge that this also constitutes a potential limitation and that the reflections I offered in both parts of the thesis might not apply to all neurodivergences equally. Nonetheless, given the broad and encompassing nature of the analytics I have deployed and of the phenomena I have discussed (such as dishumanity and disanimality, technologies of speciation and apparatuses of bestialisation, ethodiversity and

ethodivergence), I hope that my conclusions can be applied and adapted to serve the interests of most.

Finally, while I have offered ethology as a new starting point for neurodiversity theory, I do not claim it is the only viable alternative to neurocentrism. Instead, I suggest that ethology, particularly in its philosophical and phenomenological forms, offers a compelling counterpoint to the anthropocentrism and neuroreductionism prevalent in much of current neurodiversity discourse and activism and therefore provides useful insights to articulate it with humanism and speciesism. In this regard, ethology is central to my aim of reclaiming animality as an essential dimension of neurodiversity and neurodivergence. Looking at the social, cultural, and political construction and regulation of affects, particularly in contexts of multiple marginalisation along lines of race, class, and gender, has also been productive for many. Therefore, in introducing ethodiversity, I am not suggesting we abandon neurodiversity studies and start over, but I am calling for its radical expansion.

BIBLIOGRAPHY

Able Magazine, 'Neurodiversity: Is Your Brain Wired Differently? Mine is', n.d., accessed 24 March 2024. https://ablemagazine.co.uk/neurodiversity-is-your-brain-wired-differently-mine-is/.

Abram, Thomas 'Is Everyone Upright? Erwin Straus' "The Upright Posture" and Disabled Phenomenology', *Human Affairs*, vol. 24, no. 4 (2014), pp. 564–73. https://doi.org/10.2478/s13374-014-0249-2.

Adams, Carol, *The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory*, New York and London: Continuum, 1990.

Adams, Noah, and Bridget Liang, *Trans and Autistic: Stories from Life at the Intersection*, London and Philadelphia: Jessica Kingsley Publishers, 2020.

Adkin, Tanya, 'What is Meerkat Mode and How Does it Relate to AuDHD?', *Emergent Divergence*, 6 June 2023, accessed 22 April 2025. https://emergentdivergence.com/2023/06/06/what-is-meerkat-mode-and-how-does-it-relate-to-audhd/.

Aftab, Awais, 'Neurodiversity and the Social Ecology of Disability', *Psychiatric Times*, vol. 39, no. 5 (2022). https://www.psychiatrictimes.com/view/neurodiversity-and-the-social-ecology-of-disability.

Agamben, Giorgio, *Homo Sacer. Sovereign Power and Bare Life*, Stanford: Stanford University Press, 1998.

Agamben, Giorgio, *The Open: Man and Animal*, Stanford: Stanford University Press, 2004.

Agard, Olivier, 'Arnold Gehlen et les mutations du conservatisme en RFA', *Revue d'Allemagne et des pays de langue allemande*, vol. 46, no. 2 (2014), pp. 317–30. https://doi.org/10.4000/allemagne.1119.

Ahmed, Sara, *Queer Phenomenology: Orientations, Objects, Others*, Durham and London: Duke University Press, 2006.

Akkaya, Elif, and Harun Reşit Güngö, 'The Dark Side of the Animal Experiments', *Joint Diseases and Related Surgeries*, vol. 33, no. 2 (2022), pp. 479–83. https://doi.org/10.52312/jdrs.2022.719.

Alaimo, Stacy, 'Insurgent Vulnerability: Masculinist Consumerism, Feminist Activism, and the Science of Global Climate Change', *Kvinder, Køn og Forskning*, no. 3–4 (2009), pp. 22–35.

Alaimo, Stacy, *Bodily Natures: Science, Environment, and the Material Self*, Bloomington and Indianapolis: Indiana University Press, 2010.

Alaimo, Stacy, 'Deviant Agents: The Science, Culture, and Politics of Multiple Chemical Sensitivity', *Bodily Natures: Science, Environment, and the Material Self*, Bloomington and Indianapolis: Indiana University Press, 2010, pp. 113–40.

Alaimo, Stacy, *Exposed: Environmental Politics and Pleasures in Posthuman Times*, Minneapolis and London: University of Minnesota Press, 2016.

Alison, 'Validated', in *Being Autistic: Nine Adults Share Their Journeys from Discovery to Acceptance*, ed. Caroline Hearst, pp. 19–20, s.l.: AutAngel Community Interest Company, 2015.

Al-Mazidi, Sarah, Laila Al-Ayadhi, Fatmah Alqahtany, Amani Abualnaja, Abdullah Alzarroug, Turki Alhrabi, Karim Farhat, Ahmad AlMnaizel, and Afaf El-Ansary, 'The Possible Role of Sodium Leakage Channel Localization Factor-1 in the Pathophysiology and Severity of Autism Spectrum Disorders', *Scientific Reports*, vol. 13, no. 9747 (2023). https://doi.org/10.1038/s41598-023-36953-0.

Amy, Mathieu, 'Les quatre questions de Tinbergen', *Linx*, vol. 54 (2006), pp. 27–33. https://doi.org/10.4000/linx.499.

Anerol, Perla, 'Mixed Feelings', in *Divergences: An Anthology of Neurodissident Worlds*, ed. B. and Ombre Tarragnat, Melbourne: Posthuman Press, forthcoming.

Anonymous, 'Becoming Autistic, Becoming Disabled', in *Loud Hands: Autistic People, Speaking*, ed. Julia Bascom, pp. 153–8, Washington: The Autistic Press, 2012.

Anonymous [@AutisticSelves], *Twitter/X*, 7 September 2022, accessed 22 April 2025, emphasis mine. https://x.com/AutisticSelves/status/1567552230839967747.

Asasumasu, Kassiane, 'PSA from the Actual Coiner of "Neurodivergent"', Lost in my mind TARDIS, *Tumblr*, 2015, accessed 24 March 2024. https://sherlocksflataffect.tumblr.com/post/121295972384/psa-from-the-actual-coiner-of-neurodivergent.

Åsberg, Cecilia, 'Feminist Posthumanities in the Anthropocene: Forays into the Postnatural', *Journal of Posthuman Studies*, vol. 1, no. 2 (2017), pp. 185–204.

Ashley, Abs S., 'Neurotrans Affect: Choreography, Co-creation, and Coalitional Resistance', *Transgender Studies Quarterly*, vol. 12, no. 2 (2025), pp. 190–207. https://doi.org/10.1215/23289252-11710350.

Asperger, Hans, 'Die autistischen Psychopathen im Kindesalter', *Archiv für Psychiatrie und Nervenkrankheiten*, vol. 117 (1944), pp. 76–136.

Atherton, Gray, Emma Edisbury, Andrea Piovesan, and Liam Cross, '"They Ask no Questions and Pass no Criticism"': A Mixed-Methods Study Exploring Pet Ownership in Autism', *Journal of Autism and Developmental Disorders*, vol. 53 (2023), pp. 3280–94. https://doi.org/10.1007/s10803-022-05622-y.

Autism Network International, homepage, n.d., accessed 26 January 2026. https://www.autismnetworkinternational.org.

Autism Science Foundation, 'What We Fund', n.d., accessed 20 January 2025. https://autismsciencefoundation.org/what-we-fund/.

Autism Science Foundation, 'What Does Not Work', n.d., accessed 23 November 2025. https://autismsciencefoundation.org/beware-of-non-evidence-based-treatments/.

Autistic Collaboration, 'A Communal Definition of Autistic Ways of Being', *Autcollab*, 28 December 2021, accessed 29 January 2026. https://autcollab.org/projects/a-communal-definition-of-autism/.

Ávila Gaitán, Iván Darío, 'Therian: animalidad negada y ficción de amor', *Desde Abajo: la otra posición para leer*, 27 February 2026 accessed 5 March 2026. https://www.desdeabajo.info/rotador-incio/item/therian-animalidad-negada-y-ficcion-de-amor.html.

Ávila Gaitán, Iván Darío, Anahí Gabriela González, and Josué Imanol López Barrios, 'Los devenires del veganismo: una aproximación genealógica', *Políticas de la Memoria*, no. 24 (2024), pp. 288–303. https://doi.org/10.47195/901.

Babka, Anna, Hildegard Kernmayer, Julia Lingl, and Marietta Schmutz, 'Introduction: Posthumanist Gender Theory—A Very Rough Account', *Genealogy+Critique*. vol. 9, no. 1 (2023), pp. 1–15. https://doi.org/10.16995/gc.10863.

Badmington, Neil, 'Introduction: Approaching Posthumanism', in *Posthumanism*, ed. Neil Badmington, pp. 1–10, Basingstoke and London: MacMillan, 2000.

Baggs, Mel (@silentmiaow), 'In My Language', *YouTube*, 15 January 2007, accessed 15 November 2025. https://www.youtube.com/watch?v=JnylM1hI2jc.

Baggs, Mel, 'Aspie Supremacy can kill', *Ballastexistenz*, 7 March 2010, accessed 11 February 2026. https://ballastexistenz.wordpress.com/2010/03/07/aspie-supremacy-can-kill/;

Bailey, Christiane, 'The Genesis of Existentials in Animal Life: Heidegger's Appropriation of Aristotle's Ontology of Life', *Heidegger Circle Proceedings*, vol. 45 (2011), pp. 199–212.

Barad, Karen River, 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter', *Signs*, vol. 28, no. 3 (2003), pp. 801–31. https://doi.org/10.1086/345321.

Barad, Karen River, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham and London: Duke University Press, 2006.

Barbaras, Renaud, *Vie et intentionnalité. Recherches phénoménologiques*, Paris: Vrin, 2003.

Bargiela, Sarah, Robyn Steward, and William Mandy, 'The Experiences of Late-Diagnosed Women with Autism Spectrum Conditions: An Investigation of the Female Autism Phenotype', *Journal of Autism and Developmental Disorders*, vol. 46, no. 10 (2016), pp. 3281–94. https://doi.org/10.1007/s10803-016-2872-8.

Barley, Karen, 'Illuminating the Epiphany: Reflecting on Disability and Inclusion in Education', in *The Routledge International Handbook of Autoethnography in Educational Research*, ed. Emilio A. Anteliz, Deborah L. Mulligan, and Patrick Alan Danaher, pp. 13–22, London and New York: Routledge, 2022.

Baron-Cohen, Simon, 'The Extreme Male Brain Theory of Autism', *Trends in Cognitive Sciences*, vol. 6, no. 6 (2002), pp. 248–54. https://doi.org/10.1016/s1364-6613(02)01904-6.

Béata, Claude, *La Folie des chats*, Paris: Odile Jacob, 2022.

Beauvoir, Simone de, *The Second Sex*, New York: Alfred A. Knopf, 1953.

Beavers, Anna, Antoinette Fleming, and Jeffrey D. Shahidullah, 'Animal-Assisted Therapies for Autism', *Current Problems in Pediatric and Adolescent Health Care*, vol 53, no. 11, art. 101478 (2023). https://doi.org/10.1016/j.cppeds.2023.101478.

Beckman, Amanda K., Breann M. Richey, and Gil G. Rosenthal, 'Behavioral Responses of Wild Animals to Anthropogenic Change: Insights from Domestication', *Behavioral Ecology & Sociobiology*, vol. 76, no. 105 (2022). https://doi.org/10.1007/s00265-022-03205-6.

Beever, Jonathan, and Morten Tønnessen, '"Darwin und die englische Moral": The Moral Consequences of Uexküll's Umwelt Theory', *Biosemiotics*, vol. 6 (2013), pp. 437–47. https://doi.org/10.1007/s12304-013-9180-x.

Bennett, Amanda, Margaret Ray, Eric Zucker, John Chuo, 'Increasing Diagnostic Services for Autism Spectrum Disorder in the Native American Community: A Pilot Collaborative Telecare Model', *Pediatrics*, vol. 147, no. 3 (2021), pp. 970–1. https://doi.org/10.1542/peds.147.3MA10.970.

Bergenmar, Jenny, Hanna Bertilsdotter-Rosqvist, and Ann-Sofie Lönngren, 'Autism and the Question of the Human', *Literature and Medicine*, vol. 33, no. 1 (2015), pp. 202–21. https://doi.org/10.1353/lm.2015.0009.

Berger, Benjamin, 'La vie comme manifestation chez Raymond Ruyer et Adolf Portmann', in *Phénoménologie de la vie animale*, ed. Florence Burgat and Cristian Ciocan, pp. 21–46, Bucharest: Zeta Books, 2016.

Bergson, Henri, *Creative Evolution*, London: MacMillan and Co., 1922.

Bertilsdotter Rosqvist, Hanna, Anna Day, and Meaghan Krazinski, *Exploring Autistic Sexualities, Relationality, and Genders: Living Under a Double Rainbow*, London and New York: Routledge, 2025.

Bettelheim, Bruno, *The Empty Fortress: Infantile Autism of the Birth of the Self*, New York: The Free Press, 1967.

Bigé, Emma, *Mouvementements. Écopolitiques de la danse*, Paris: La Découverte, 2023.

Blanckaert, Claude, 'Les animaux "utiles" chez Isidore Geoffroy Saint-Hilaire. La mission sociale de la zootechnie', *Revue de Synthèse*, vol. 113 (1992), pp. 347–82. https://doi.org/10.1007/BF03181192.

Bleuler, Eugen, *Dementia Praecox or the Group of Schizophrenias*, New York: International Universities Press, 1950.

Bloch, Ernst, 'Marx, Aufrechter Gang, konkrete Utopie', in *Politische Messungen, Pestzeit, Vormärz*, Frankfurt am Main: Suhrkamp, 1970.

Bloch, Ernst, *Spirit of Utopia*, Stanford: Stanford University Press, 2000.

Blume, Harvey, 'Neurodiversity: On the Neurological Underpinnings of Geekdom', *The Atlantic,* 30 September 1998, accessed 1 November 2025. https://www.theatlantic.com/magazine/archive/1998/09/neurodiversity/305909/.

Blumenberg, Hans, *Description de l'homme*, Paris: Éditions du cerf, 2011.

Blumenberg, Hans, 'Description of the Human', *Common Knowledge*, vol. 30, no. 2 (2024), pp. 226–78. https://doi.org/10.1215/0961754X-11236819.

Boltanski, Luc, and Eve Chiapello, *The New Spirit of Capitalism*, London: Verso, 2005.

Boren, Ryan, 'Kinetic Cognitive Style', *Stimpunks*, 13 June 2022, accessed 22 April 2025. https://stimpunks.org/glossary/kinetic-cognitive-style/.

Boren, Ryan 'Neurokin', *Stimpunks*, 4 November 2023, accessed 22 September 2025. https://stimpunks.org/glossary/neurokin/.

Boren, Ryan, 'Neurotype', *Stimpunks*, 17 February 2024, accessed 22 September 2025. https://stimpunks.org/glossary/neurotype/.

Botha, Monique, 'Community Psychology as Reparation for Violence in the Construction of Autism Knowledge', in *The Routledge International Handbook of Critical Autism Studies*, ed. Damian Milton and Sara Ryan, pp. 76–93, London and New York: Routledge, 2023. https://doi.org/10.4324/9781003056577-8.

Botha, Monique, Robert Chapman, Morénike Giwa Onaiwu, Steven K. Kapp, Abs Stannard Ashley, and Nick Walker, 'The Neurodiversity Concept Was Developed Collectively: An Overdue Correction on the Origins of Neurodiversity Theory', *Autism*, vol. 28, no. 6 (2024), pp. 1591–4. https://doi.org/10.1177/13623613241237871.

Bourdieu, Pierre, *Sociology in Question*, London, Thousand Oaks, and New Delhi: Sage Publications, 1993.

Bradshaw, G. A., and Mary Watkins, 'Trans-species Psychology: Theory and Praxis', *Spring*, vol. 75 (2006), pp. 69–94.

Braidotti, Rosi, *Posthuman Knowledge*, Cambridge and Medford: Polity, 2019.

Braidotti, Rosi, *Posthuman Feminism*, Cambridge and Medford: Polity, 2022.

Brentari, Carlo, *Jakob Von Uexküll: The Discovery of the Umwelt Between Biosemiotics and Theoretical Biology*, Cham: Springer, 2015.

Branch, R. Wayne, 'Prisoners of Binary Thinking', *Medium*, 1 June 2024, accessed 15 February 2026. https://medium.com/fourth-wave/prisoners-of-binary-thinking-9fae10c2ceb5.

Broderick, Alicia A., *The Autism Industrial Complex: How Branding, Marketing, and Capital Investment Turned Autism into Big Business*, Gorham: Myers Education Press, 2022.

Brown, Lydia X. Z., 'Critiquing Temple Grandin', *Autistic Hoya*, 10 August 2013, accessed 2 November 2025. www.autistichoya.com/2013/08/critiquing-temple-grandin.html.

Brown, Lydia X. Z., E. Ashkenazy, and Morénike Giwa Onaiwu, *All the Weight of Our Dreams: On Living Racialized Autism*, Lincoln: DragonBee Press, 2017.

Buchanan, Brett, *Onto-Ethologies: The Animal Environments of Uexküll, Heidegger, Merleau-Ponty, and Deleuze*, New York: SUNY Press, 2008.

Buchanan, Brett, Matthew Chrulew, and Jeffrey Bussolini, *The Philosophical Ethology of Vinciane Despret*, London and New York: Routledge, 2019.

Burgat, Florence, *Liberté et inquiétude de la vie animale*, Paris: Kimé, 2006.

Burgat, Florence, *Une autre existence. La condition animale*, Paris: Albin Michel, 2012.

Burgat, Florence, *L'Humanité carnivore*, Paris: Seuil, 2017.

Burgat, Florence, *L'Inconscient des animaux*, Paris: Seuil, 2023.

Burgat, Florence, 'The Phyto-Zoological Difference: Three Epistemological Questions', in *Biological Relationalism: The Relational Turn in Contemporary Science, Theory, and Politics*, ed. Aurore Franco-Ricord and Ombre Tarragnat, Cham: Springer, forthcoming.

Burghardt, Gordon M., 'Amending Tinbergen: A Fifth Aim for Ethology', in *Anthropomorphism, Anecdotes, and Animals*, ed. Robert W. Mitchell, Nicholas S. Thompson, and H. Lyn Miles, pp. 254–76, Albany: State University of New York Press, 1997.

Burkhardt Jr., Richard W., *Patterns of Behavior: Konrad Lorenz, Niko Tinbergen, and the Founding of Ethology*, Chicago and London: The University of Chicago Press, 2005.

Bussolini, Jeffrey, 'Recent French, Belgian and Italian Work in the Cognitive Science of Animals: Dominique Lestel, Vinciane Despret, Roberto Marchesini and Giorgio Celli', *Social Science Information*, vol. 52, no. 2 (2013), pp. 187–209.

https://doi.org/10.1177/0539018413477938.

Bussolini, Jeffrey, 'The Philosophical Ethology of Roberto Marchesini', *Angelaki*, vol. 21, no. 1 (2016), pp. 17–38. https://doi.org/10.1080/0969725X.2016.1163072.

Bussolini, Jeffrey, Matthew Chrulew, and Brett Buchanan, 'Entering Theriomorphic Worlds', *Angelaki*, vol. 21, no. 1 (2016), pp. 255–69. http://dx.doi.org/10.1080/0969725X.2016.1163867.

Bussolini, Jeffrey, Brett Buchanan, and Matthew Chrulew, *The Philosophical Ethology of Roberto Marchesini*, London and New York: Routledge, 2019.

Butler, Judith, *Gender Trouble: Feminism and the Subversion of Identity*, New York and London: Routledge, 1990.

Butler, Judith, 'Contingent Foundations: Feminism and the Question of "Postmodernism"', in *Feminists Theorize the Political*, ed. Judith Butler and Joan W. Scott, pp. 3–21, New York: Routledge, 1992.

Butler, Judith, *Undoing Gender*, New York and London: Routledge, 2004.

Butler, Judith, 'Companion Thinking: A Response', *New Literary History*, vol. 51, no. 4 (2020), pp. 687–94. https://muse.jhu.edu/article/781676.

Buytendijk, Frederik, *Psychologie des animaux*, Paris: Payot, 1928.

Buytendijk, Frederik J. J., *Traité de psychologie animale*, Paris: Presses Universitaires de France, 1952.

Buytendijk, Frederik J. J., *L'Homme et l'Animal. Essai de psychologie comparée*, Paris: Gallimard, 1965.

Cage, Eilidh, Catherine J. Crompton, Sarah Dantas, Khiah Strachan, Rachel Birch, Mark Robinson, Stasa Morgan-Appel, Charlie MacKenzie-Nash, Aaron Gallagher, and Monique Botha, 'What are the Autism Research Priorities of Autistic Adults in Scotland?', *Autism*, vol. 28, no. 9 (2024), pp. 2179–90. https://doi.org/10.1177/13623613231222656.

Calarco, Matthew, *The Three Ethologies: A Positive Vision for Rebuilding Human-Animal Relationships*, Chicago: The University of Chicago Press, 2024.

Campbell, Fiona Kumari, *Contours of Ableism: The Production of Disability and Abledness*, Basingstoke: Palgrave Macmillan, 2009.

Camus, Agathe, 'Goldstein holiste ?', in Kurt Goldstein, *La Nature humaine à la lumière de la psychopathologie*, Paris: Les Belles Lettres, 2021, pp. 39–70.

Camus, Agathe, 'Kurt Goldstein, de la clinique des lésions cérébrales au soin et à l'accompagnement des maladies chroniques et du handicap : soigner la personne, « réarranger le milieu »', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), pp. 95–116.

Camus, Agathe, Marco Dal Pozzolo, and Charlotte Gilart de Keranflec'h, 'Kurt Goldstein : biologie, anthropologie, clinique. Introduction', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), pp. 5–15.

Canguilhem, Georges, *Knowledge of Life*, New York: Fordham University Press, 2008.

Caro, Tim, and Paul W. Sherman, 'Vanishing Behaviors', *Conservation Letters: A Journal of the Society for Conservation Biology*, vol. 5, no. 3 (2012), pp. 159–66. https://doi.org/10.1111/j.1755-263X.2012.00224.x.

Cavalieri, Paola, 'Consequences of Humanism, or, Advocating What?', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Marianne DeKoven and Michael Lundblad, pp. 49–73, New York: Columbia University Press, 2012.

Chamberlain, Charles, 'From "Haunts" to "Character": The Meaning of Ēthos and Its Relation to Ethics', *Helios*, vol. 11 (1984), pp. 97–108.

Chapman, Louise, Kieran Rose, Laura Hull, and William Mandy, '"I Want to Fit In… But I Don't Want to Change Myself Fundamentally": A Qualitative Exploration of the Relationship Between Masking and Mental Health for Autistic Teenagers', *Research in Autism Spectrum Disorders*, vol. 99, no. 102069 (2022). https://doi.org/10.1016/j.rasd.2022.102069.

Chapman, Robert, *Autism, Neurodiversity, and the Good Life: On the Very Possibility of Autistic Thriving*, PhD Thesis, University of Essex, 2018.

Chapman, Robert, 'Neurodiversity, Disability, Wellbeing', in *Neurodiversity Studies: A New Critical Paradigm*, ed. Hanna Bertilsdotter Rosqvist, Nick Chown and Anna Stenning, pp. 57–72, London and New York: Routledge, 2020.

Chapman, Robert, 'Defining Neurodiversity for Research and Practice', in *Neurodiversity Studies: A New Critical Paradigm*, ed. Hanna Bertilsdotter Rosqvist, Nick Chown, and Anna Stenning, pp. 218–20, London and New York: Routledge, 2020.

Chapman, Robert 'The Reality of Autism: On the Metaphysics of Disorder and Diversity', *Philosophical Psychology*, vol. 33, no. 6 (2020), pp. 799–819. https://doi.org/10.1080/09515089.2020.1751103.

Chapman, Robert, 'Neurodiversity and the Social Ecology of Mental Functions', *Perspectives on Psychological Science*, vol. 16, no. 6 (2021), pp. 1360–72. https://doi.org/10.1177/1745691620959833.

Chapman, Robert, *Empire of Normality: Neurodiversity and Capitalism*, London and Las Vegas: Pluto Press, 2023.

Chapman, Robert, 'The Future of the Neurodiversity Movement', *Boston Review*, 29 May 2024, accessed 22 April 2025. https://www.bostonreview.net/forum/the-future-of-neurodiversity/.

Charlton, James, *Nothing About Us Without Us: Disability Oppression and Empowerment*, Oakland: University of California Press, 1998.

Chen, Mel Y., *Animacies: Biopolitics, Racial Mattering, and Queer Affect*, Durham and London: Duke University Press, 2012.

Chen, Mel Y., 'Following Mercurial Affects', in *Animacies: Biopolitics: Racial Mattering, and Queer Affect*, Durham and London: Duke University Press, 2012, pp. 189–221.

Chen, Mel Y., *Intoxicated: Race, Disability, and Chemical Intimacy Across Empire*, Durham and London: Duke University Press, 2023.

Choi, Charles Q., 'Sleep Problems in Autism May Stem from Leaky Brain Barrier', *The Transmitter*, 23 July 2021, accessed 23 January 2026. https://www.thetransmitter.org/spectrum/sleep-problems-in-autism-may-stem-from-leaky-brain-barrier/.

Cimatti, Felice, *Unbecoming Human: Philosophy of Animality After Deleuze*, Edinburgh: Edinburgh University Press, 2020.

Cixous, Hélène, 'Savoir', in Hélène Cixous and Jacques Derrida, *Veils*, Stanford: Stanford University Press, 2004, pp. 1–16.

Clare, Eli, *Exile and Pride: Disability, Queerness, and Liberation*, Durham: Duke University Press, 2015.

Clare, Eli, 'The Mountain', *Exile and Pride: Disability, Queerness, and Liberation*, Durham and London: Duke University Press, 2015, pp. 1–14.

Clegg, Helen, Roz Collings, and Elizabeth C. Roxburgh, 'Therianthropy: Wellbeing, Schizotypy, and Autism in Individuals Who Self-Identify as Non-Human', *Society & Animals*, vol. 27, no. 4 (2019), pp. 403–26. https://doi.org/10.1163/15685306-12341540.

Coca, Juan R., Alberto Soto, Cristina Mesquita, Rui Pedro Lopes, and Adolfo Cordero-Rivera, 'Biosociological Ethodiversity in the Social System', *Biosystems*, vol. 210, no. 104552 (2021). https://doi.org/10.1016/j.biosystems.2021.104552.

Cohen, Pnina, and Eyan Privman, 'The Social Supergene Dates Back to the Speciation Time of Two *Solenopsis* Fire Ant Species', *Scientific Reports*, vol. 10, no. 11538 (2020). https://doi.org/10.1038/s41598-020-67999-z.

Colebrook, Claire, *The Death of the PostHuman: Essays on Extinction, Volume One*, Ann Arbor: Open University Press, 2014.

Čolić, Marija, Sho Araiba, Temple S Lovelace, and Sarah Dababnah, 'Black Caregivers' Perspectives on Racism in ASD Services: Toward Culturally Responsive ABA Practice', *Behavior Analysis in Practice*, vol. 15, no. 4 (2021), pp. 1032–41. https://doi.org/10.1007/s40617-021-00577-5.

Coll-Tané, Mireia, Naihua N. Gong, Samuel J. Belfer, Lara V. Van Renssen, Evangeline C. Kurtz-Nelson, Milan Szuperak, Ilse Eidhof, Boyd van Reijmersdal, Isabel Terwindt, Jaclyn Durkin, Michel M. M. Verheij, Chang N. Kim, Caitlin M. Hudac, Tomasz J. Nowakowski, Raphael A. Bernier, Rachel K. Earl, Evan E. Eichler, Tjitsje Kleefstra, Matthew S. Kayser, and Annette Schenck, 'The CHD8/CHD7/Kismet Family Links Blood-Brain Barrier Glia and Serotonin to ASD-Associated Sleep Defects', *Science Advances*, vol. 7, no. 23 (2021). https://doi.org/10.1126/sciadv.abe2626.

Combahee River Collective (The), 'A Black Feminist Statement', *Women's Studies Quarterly*, vol. 42, no. 3–4 (1977), pp. 271–80.

Conrad, André, 'Ruyer et les leçons de l'instinct. L'éthologie compréhensive : Von Uexküll, Buytendijk, Ruyer', *Philosophie*, vol. 149, no. 2 (2021), pp. 12–27.

Convention on Biological Diversity, 'Article 2. Use of Terms', n.d., accessed 24 March 2024. https://www.cbd.int/convention/articles/?a=cbd-02.

Cordero-Rivera, Adolfo, 'Behavioral Diversity (Ethodiversity): A Neglected Level in the Study of Biodiversity', *Frontiers in Ecology and Evolution*, vol. 5, art. 7 (2017), pp. 1–7. https://doi.org/10.3389/fevo.2017.00007.

Coria-Avila, Genaro A., James G. Pfaus, Agustín Orihuela, Adriana Domínguez-Oliva, Nancy José-Pérez, Laura Astrid Hernández, and Daniel Mota-Rojas, 'The Neurobiology of Behavior and Its Applicability for Animal Welfare: A Review', *Animals*, vol. 12, no. 7 (2022), 928. https://doi.org/10.3390/ani12070928.

Coyote, 'Therioside', *WikiTherian*, n.d, accessed 6 June 2025. https://pritisni.ctrl-alt-del.si/wikitherian20050325/Therioside.html.

Crary, Alice, 'The Horrific History of Comparisons Between Animals and Cognitively Disabled Human Beings (and How to Move Past it)' in *Animaladies: Gender, Animals, and Madness*, ed. Lori Gruen and Fiona Probyn-Rapsey, pp. 117–36, New York and London: Bloomsbury Academic, 2018.

Crary, Alice, 'Dehumanization and the Question of Animals', in *The Routledge Handbook of Dehumanization*, ed. Maria Kronfeldner, pp. 159–72, London and New York: Routledge, 2021.

Crenshaw, Kimberle, 'Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color', *Stanford Law Review*, vol. 43, no. 6 (1991), pp. 1241–99.

Cuicu, Dragos, 'La téléologie cachée dans la pensée biologique d'Uexküll', *Revue de Métaphysique et de Morale*, no. 101 (2019), pp. 91–100. https://doi.org/10.3917/rmm.191.0091.

Cultural Autism Studies at Yale, 'Home', n.d., accessed 22 September 2025. https://culturalautismstudiesatyale.space.

Cushing, Simon ‘Autism: The Very Idea’, in *The Philosophy of Autism*, ed. Jami L. Anderson and Simon Cushing, pp. 17–45, Lanham and Plymouth: Rowman and Littlefield Publishers, 2013.

Cyrulnik, Boris, ‘Modèle animal ?’, *Bulletin de l’Académie Nationale de Médecine*, vol. 196, no. 9 (2012), pp. 1899–906. https://doi.org/10.1016/S0001-4079(19)31664-4.

Czech, Herwig, ‘Hans Asperger, National Socialism, and “Race Hygiene” in Nazi-era Vienna’, *Molecular Autism*, vol. 9, no. 29 (2018). https://doi.org/10.1186/s13229-018-0208-6.

Daigle, Christine, *Nietzsche as Phenomenologist: Becoming What One Is*, Edinburgh: Edinburgh University Press, 2021.

Daigle, Christine, *Posthumanist Vulnerability: An Affirmative Ethics*, London, New York, and Dublin: Bloomsbury Academic, 2023.

Dal Pozzolo, Marco, ‘Santé et pathologie au prisme du milieu : les ambivalences de la pensée de Kurt Goldstein’, *Philosophia Scientiæ*, vol. 28, no. 3 (2024), pp. 75–95. https://doi.org/10.4000/12fro.

Darwin, Charles, *The Expression of Emotions in Man and Animals*, London: John Murray, 1872.

Davidson, Joyce, and Michael Orsini, *Worlds of Autism: Across the Spectrum of Neurological Difference*, Minneapolis and London: University of Minnesota Press, 2013.

Davidson, Joyce, and Mick Smith, ‘Autistic Autobiographies and More-Than-Human Emotional Geographies’, *Environment and Planning D: Society and Space*, vol. 27 (2009), pp. 898–916.

Davidson, Joyce, and Sophie Tamas, ‘Autism and the Ghost of Gender’, *Emotion, Space and Society*, vol. 19 (2016), pp. 59–65. https://doi.org/10.1016/j.emospa.2015.09.009.

Davidson, Martina, *Repensando o Veganismo: o feminismo e projeto decoloniais como ferramentas ético-políticas para um veganismo anticapitalista*, Rio de Janeiro: Ape’Ku Editora, 2021.

Davidson, Martina, ‘O especismo também é um capacitismo: diálogos imprescindíveis entre os anticapacitismos e os antiespecismos’, in *Antiespecismos subversivos: construções a partir das dissidências*, ed. Martina Davidson and Mica Peres, Rio de Janeiro: Ape’Ku, 2023, pages unknown.

Davidson, Michael, ‘Vaccination as a Cause of Autism - Myths and Controversies’, *Dialogues in Clinical Neuroscience*, vol. 19, no. 4 (2017), pp. 403–7. https://doi.org/10.31887/DCNS.2017.19.4/mdavidson.

Davies, Gail, ‘What is a Humanized Mouse? Remaking the Species and Spaces of Translational Medicine’, *Body & Society*, vol. 18, no. 3–4 (2012), pp. 126–55.

https://doi.org/10.1177/1357034X12446378.

Davis, Amber, Marjorie Solomon, and Harolyn Belcher, 'Examination of Race and Autism Intersectionality Among African American/Black Young Adults', *Autism in Adulthood*, vol. 4, no. 4 (2022), pp. 306–14. https://doi.org/10.1089/aut.2021.0091.

Davis, Amber M., Emma Smith, Xuhao Yang, and Rebecca Wright, 'Exploring Racial Discrimination, Disability Discrimination, and Perception of the Future Among Black-Identifying Emerging Adults with and without Autism in the United States: A Mixed-Methods Descriptive Study', *Journal of Child & Adolescent Trauma*, vol. 17 (2024), pp. 1019–34. https://doi.org/10.1007/s40653-024-00624-7.

Davis, Amber M., Nicole A. Telfer, Jonet Artis, Oluwatobi Abubakare, Yolanda D. Keller-Bell, Carmen Caruthers, Desiree R. Jones, and Nigel P. Pierce, 'Resilience and Strengths in the Black Autism Community in the United States: A Scoping Review', *Autism Research*, vol. 17, no. 11 (2024), pp. 2198–222. https://doi.org/10.1002/aur.3243

Davis, Lennard J., *The End of Normal: Identity in a Biocultural Era*, Ann Arbor: The University of Michigan Press, 2013.

Dawson, Michelle, 'The Misbehaviour of Behaviourists: Ethical Challenges to the Autism-ABA Industry', *Sentex*, January 18, 2004, accessed 17 November 2025. https://www.sentex.ca/~nexus23/naa_aba.html.

Dekker, Martijn, 'A Correction on the Origin of the Term "Neurodiversity"', 13 July 2023, accessed 24 March 2024. https://www.inlv.org/2023/07/13/neurodiversity-origin.html.

Deleuze, Gilles, and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, Minneapolis and London: University of Minnesota Press, 1987.

Demirjian, Karoun, Dani Blum, and Azeen Ghorayshi, 'Kennedy Calls Autism 'Preventable,' Drawing Ire from Researchers', *The New York Times*, 16 April 2025, accessed 2 November 2025. https://www.nytimes.com/2025/04/16/us/politics/rfk-jr-autism.html.

Derrida, Jacques, '"Eating Well", or the Calculation of the Subject: An Interview with Jacques Derrida', in *Who Comes After the Subject*, ed. Eduardo Cadava, Peter Connor, and Jean-Luc Nancy, pp. 96–119, New York and London: Routledge, 1991.

Derrida, Jacques, *The Animal That Therefore I Am*, New York: Fordham University Press, 2008.

Derrida, Jacques, *The Beast and the Sovereign, Vol. 1*, Chicago and London: The University of Chicago Press, 2009.

Descartes, René, *A Discourse on the Method of Correctly Conducting One's Reason and Seeking Truth in the Sciences*, Oxford: Oxford University Press, 2006.

Despret, Vinciane, *What Would Animals Say If We Asked the Right Questions?* Minneapolis and London: University of Minnesota Press, 2016.

Despret, Vinciane, *The Dance of the Arabian Babbler: Birth of an Ethological Theory*, London and New York: University of Minnesota Press, 2021.

Di Chiro, Giovanna, 'Polluted Politics: Confronting Toxic Discourse, Sex Panic, and Eco-Normativity', in *Queer Ecologies: Sex, Nature, Politics, Desire*, ed. Catriona Mortimer-Sandilands and Bruce Erickson, pp. 199–230, Bloomington and Indianapolis: Indiana University Press, 2010.

Di Paolo, Ezequiel, 'Afterword: A Future for Jakob von Uexküll', in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, pp. 252–6, London and New York: Routledge, 2020.

DisHuman, 'About', 2015, accessed 14 December 2025. https://web.archive.org/web/20160330112632/http://dishuman.com/about/.

DisHuman, 'DisHuman Manifesto', 2015, accessed 14 December 2025. https://web.archive.org/web/20160330115045/http://dishuman.com/dishuman-manifesto/.

DisHuman, 'DisHuman Manifesto – Elaboration', accessed 14 December 2025. https://web.archive.org/web/20160330115101/http://dishuman.com/dishuman-manifesto-elaborated-version/.

Dittmar, Pierre Olivier, *L'Invention de l'animal. Essai d'anthropologie médiévale*, Paris: Éditions Dehors, 2026.

Dumont, Martin, 'L'anthropologie philosophique de Kurt Goldstein', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), pp. 147–66. https://doi.org/10.4000/12frr.

Dunbar, Marina, 'RFK Jr's Autism Study Collecting Americans' Private Medical Records', *The Guardian*, 22 April 2025, accessed 2 November 2025. https://www.theguardian.com/us-news/2025/apr/22/rfk-jr-autism-nih.

Dwyer, Patrick, Zachary J. Williams, Wenn B. Lawson, and Susan M. Rivera, 'A Trans-Diagnostic Investigation of Attention, Hyper-focus, and Monotropism in Autism, Attention Dysregulation Hyperactivity Development, and the General Population', *Neurodiversity*, vol. 2. https://doi.org/10.1177/27546330241237883.

Edelman, Lee, *No Future: Queer Theory and the Death Drive*, Durham and London: Duke University Press, 2004.

Edgar, Helen (*MoreRealms*), 'Neuroqueering from the Inbetween', *Medium*, 11 April 2024, accessed 22 September 2025. https://medium.com/@helenrealms/neuroqueering-from-the-inbetween-4ec0c12fd0e5.

Edgar, Helen (@AutisticRealms), '1. A seasonal interpretation of #monotropism', *Twitter/X*, 2 May 2024, accessed 22 September 2025. https://x.com/autisticrealms/status/1786104362067988767.

Edgar, Helen (*MoreRealms*), 'Monotropism, Holotropism & Floatation Experiences', *Medium*, 25 May 2024, accessed 22 September 2025. https://medium.com/@helenrealms/monotropism-holotropism-floatation-experiences-e8c4d0c27b0f.

Edgar, Helen (*MoreRealms*), 'Neuro-Holographic Thoughts', *Medium*, 23 June 2024, accessed 22 September 2025. https://medium.com/@helenrealms/neuro-holographic-thoughts-7544f6bcae70.

Edgar, Helen, 'The Neuronormative Paradigm', *Autistic Realms*, published 11 November 2025, accessed 15 November 2025. https://autisticrealms.com/the-neuronormative-paradigm-naming-the-systems-that-harm/.

Edgar, Helen, *More Realms*, n.d., accessed 9 January 2026. https://morerealms.com.

Edgar, Helen, 'Weird Pride', *Autistic Realms*, n.d., accessed 10 February 2026. https://autisticrealms.com/projects/weird-pride/.

Edwards, Jules, 'Applied Behavior Analysis is Abusive to Native Children', *ICT News*, 18 April 2021, accessed 17 November 2025. https://ictnews.org/opinion/applied-behavior-analysis-is-abusive-to-native-children/.

Ellis, Jackie M., 'Imagining Neurodivergent Futures from the Belly of the Identity Machine: Neurodiversity, Biosociality, and Strategic Essentialism', *Autism Adulthood*, vol. 5, no. 3 (2023), pp. 225–35. https://doi.org/10.1089/aut.2021.0075.

Engel, George L., 'The Need for a New Medical Model: A Challenge for Biomedicine', *Science*, vol. 196, no. 4286 (1977), pp. 129–36. https://doi.org/10.1126/science.847460.

Espahangizi, Kijan M., *Wissenschaft im Glas: Eine historische Ökologie moderner Laborforschung*, PhD thesis, ETH Zurich, 2010.

Esposito, Maurizio, 'Kantian Ticks, Uexküllian Melodies, and the Transformation of Transcendental Philosophy', in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, pp. 36–51, London and New York: Routledge, 2020.

Esposito, Roberto, *Bios: Biopolitics and Philosophy*, Minneapolis and London: University of Minnesota Press, 2008.

Feiten, Tim Elmo, Kristopher Holland, and Anthony Chemero, 'Worlds Apart? Reassessing von Uexküll's Umwelt in Embodied Cognition with Canguilhem, Merleau-Ponty, and Deleuze', *Journal of French and Francophone Philosophy - Revue de la philosophie française et de langue française*, vol. 28, no. 1 (2020), pp. 1–26.

Feiten, Tim Elmo, ‘What Do We Want from Jakob von Uexküll? Two Reading Recommendations on Open and Closed Umwelten’, *Dialectical Systems: A Forum for Biology, Ecology and Cognitive Science*, 2022, accessed 12 March 2026. https://www.dialecticalsystems.eu/contributions/what-do-we-want-from-jakob-von-uexkull-two-reading-recommendations-on-open-and-closed-umwelten/.

Fellowes, Sam, ‘Should Neurodiversity be Extended to Animals?’, 11 June 2022, accessed 24 March 2024. https://samfellowes.com/philosophyofpsychiatryblog/index.php/2022/06/11/should-neurodiversity-be-extended-to-animals/.

Fernandez, Eduardo J., and Allison L. Martin, ‘Animal Training, Environmental Enrichment, and Animal Welfare: A History of Behavior Analysis in Zoos’, *Journal of Zoological and Botanical Gardens*, vol. 2, no. 4 (2021), pp. 531–43. https://doi.org/10.3390/jzbg2040038.

Ferrando, Francesca, *Philosophical Posthumanism*, London and New York: Bloomsbury Academic, 2019.

Ferrari, Marcella B., ‘Feminismos descoloniales y discapacidad: hacia una conceptualización de la colonialidad de la capacidad’, *Nómadas*, vol. 52 (2020), pp. 115–31. https://doi.org/10.30578/nomadas.n52a7.

Fine, Aubrey H., Alan M. Beck, and Zenithson Ng, ‘The State of Animal-Assisted Interventions: Addressing the Contemporary Issues that will Shape the Future’, *International Journal of Environmental Research and Public Health*, vol. 16, no. 20, art. 3997 (2019). https://doi.org/10.3390/ijerph16203997.

Fitzgerald, Michael, ‘Oliver Sacks Was on the Autism Spectrum’, 2022, accessed 16 December 2025. https://www.academia.edu/81156895/Oliver_Sacks_was_on_the_autism_spectrum.

Flakin, Nathaniel, ‘Autism and Anticapitalism’, *Left Voice*, 3 April 2019, accessed 1 February 2026. https://www.leftvoice.org/autism-and-anticapitalism/.

Fletcher, Katherine, ‘The Moral Ambiguity of Animal-Assisted Therapy and the Conflicts of Medicalizing Another Social Species’, *Journal of Animal Ethics*, vol. 15, no. 1 (2025), pp. 17–31. https://doi.org/10.5406/21601267.15.1.04.

Folstad, Ivar, and Andrew John Karter, ‘Parasites, Bright Males, and the Immunocompetence Handicap’, *The American Naturalist*, vol. 139, no. 3 (1992), pp. 603–22. https://doi.org/10.1086/285346.

Foucault, Michel, *Madness and Civilization: A History of Insanity in the Age of Reason*, New York: Random House, 1965.

Foucault, Michel, 'Nietzsche, Genealogy, History', in *Language, Counter-Memory, Practice: Selected Essays and Interviews*, ed. Donald F. Bouchard, pp. 139–64, Ithaca: Cornell University Press, 1977. https://doi.org/10.1515/9781501741913.

Foucault, Michel, *The History of Sexuality, Volume 1: An Introduction*, New York: Pantheon Books, 1978.

Foucault, Michel, *The Order of Things: An Archeology of the Human Sciences*, London: Routledge, 1994.

Freeman Loftis, Sonya, 'Critical Autism Studies: The State of the Field', *Ought: The Journal of Autistic Culture*, vol. 5, no. 1 (2023), pp. 10–17. https://doi.org/10.9707/2833-1508.1147.

Friedner, Michele, and Karen Weingarten, 'Introduction: Disorienting Disability', *The South Atlantic Quarterly*, vol. 118, no. 3 (2019), pp. 483–90.

Friese, Carrie, *A Mouse in a Cage: Rethinking Humanitarianism and the Rights of Lab Animals*, New York: New York University Press, 2025.

Frisch, Stefan, 'Entwicklung durch Begegnung – Kurt Goldsteins Beiträge zur Psychotherapie', *Der Nervenarzt*, vol. 90, no. 3 (2018), pp. 299–305.

Frommer, Gabriel P., and Aaron Smith, 'Kurt Goldstein and Recovery of Function', in *Brain Injury and Recovery: Theoretical and Controversial Issues*, ed. Stanley Finger, T. E. Levere, C. Robert Almli, and Donald G. Stein, pp. 71–88, Boston: Springer, 1988.

Furfaro, Hannah, 'Race, Class Contribute to Disparities in Autism Diagnoses', *The Transmitter*, 20 November 2017, accessed 12 January 2026. https://www.thetransmitter.org/spectrum/race-class-contribute-disparities-autism-diagnoses/.

Gaard, Greta, *Ecofeminism: Women, Animals, Nature*, Philadelphia: Temple University Press, 1993.

Gaille, Marie, 'Qu'était-il en réalité, demandaient-ils, un médecin, un psychologue, un philosophe ?', in Kurt Goldstein, *La Nature humaine à la lumière de la psychopathologie*, Paris: Les Belles Lettres, 2021, pp. 11–37.

Garland-Thomson, Rosemarie, *Extraordinary Bodies: Figuring Physical Disability in American Culture and Literature*, New York: Columbia University Press, 1997.

Garland-Thomson, Rosemarie, 'The Case for Conserving Disability', *Bioethical Inquiry*, vol. 9, no. 3 (2013), pp. 339–55. https://doi.org/10.1007/s11673-012-9380-0.

Garland-Thomson, Rosemarie, 'Human Biodiversity Conservation: A Consensual Ethical Principle', *The American Journal of Bioethics*, vol. 15, no. 6 (2015), pp. 13–5. https://doi.org/10.1080/15265161.2015.1028663.

Garland-Thomson, Rosemarie, 'Building a World with Disability in It', in *Culture – Theory – Disability: Encounters between Disability Studies and Cultural Studies*, ed. Anne Waldschmidt, Hanjo Berressem, and Moritz Ingwersen, pp. 51–62, Bielefeld: Transcript Verlag, 2017. https://doi.org/10.1515/9783839425336-006.

Gehlen, Arnold, *Der Mensch: Seine Natur und seine Stellung in der Welt*, Berlin: Junker & Dünnhaupt, 1940.

Gehlen, Arnold, *Urmensch und Spätkultur: Philosophische Ergebnisse und Aussagen*, Bonn: Athenäum-Verlag, 1956.

Gehlen, Arnold *Man: His Nature and Place in the World*, New York: Columbia University Press, 1988.

Geoffroy Saint-Hilaire, Isidore, *Histoire naturelle générale des ordres organiques*, vol. III, Paris: Victor Masson, 1860.

Gibbons, Sarah, 'Neurological Diversity and Environmental (In)Justice: The Ecological Other in Popular and Journalist Representations of Autism', in *Disability Studies and the Environmental Humanities: Toward an Eco-Crip Theory*, ed. Sarah Jaquette Ray and Jay Sibara (pp. 531–51), Lincoln and London: University of Nebraska Press, 2017.

Gibson, Margaret F., and Patty Douglas, 'Disturbing Behaviors: Ole Ivar Løvaas and the Queer History of Autism Science', *Catalyst: Feminism, Theory, Technoscience*, vol. 4, no. 2 (2018), pp. 1–28.

Gilart de Keranflec'h, Charlotte, 'Goldstein et la médecine physique et de réadaptation. L'expérience de la vie "malgré tout"', in Kurt Goldstein, *La Nature humaine à la lumière de la psychopathologie*, Paris: Les Belles Lettres, 2021, pp. 71–114.

Gilart de Keranflec'h, Charlotte, '"Outsider as Insider", la neurorehabilitation selon Goldstein', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), pp. 117–45.

Ginn, Franklin, 'Jakob von Uexküll Beyond Bubbles: On Umwelt and Biophilosophy', *Science as Culture*, vol. 23, no. 1 (2014), pp. 129–34. https://doi.org/10.1080/09505431.2013.871245.

Giraud, Eva Haifa, *What Comes After Entanglement? Activism, Anthropocentrism, and an Ethics of Exclusion*, Durham and London: Duke University Press, 2019.

Giraud, Eva Haifa, *Veganism: Politics, Practice, and Theory*, London, New York, and Dublin, Bloomsbury Academic, 2021.

Giraud, Eva Haifa, and Greg Hollin, 'Care, Laboratory Beagles and Affective Utopia', *Theory, Culture & Society*, vol. 33, no. 4 (2016), pp. 27–49. https://doi.org/10.1177/0263276415619685.

Giwa Onaiwu, Morénike, 'I, Too, Sing Neurodiversity', *Ought: The Journal of Autistic Culture*, vol. 2, no. 1, art. 10 (2020). https://doi.org/10.9707/2833-1508.1048.

Godfrey-Smith, Peter, *Metazoa: Animal Minds and the Birth of Consciousness*, London: William Collins, 2020.

Göhlsdorf, Novina, 'Autismus. Diagnose der Gegenwart', *Kinder- und Jugendlichen-Psychotherapie. Zeitschrift für Psychoanalyse und Tiefenpsychologie*, vol. 182, no. 2 (2019), pp. 277–303.

Göhlsdorf, Novina, '"The Magical Device": Temple Grandin's Hug Machine', in *Material Cultures of Psychiatry*, ed. Monika Ankele and Benoît Majerus, pp. 228–54, Bielefeld: transcript Verlag, 2020.

Goldstein, Kurt, 'Über die Plastizität des Organismus auf Grund von Erfahrungen am nervenkranken Menschen', in *Arbeitsphysiologie II Orientierung · Plastizität Stimme und Sprache. Handbuch der Normalen und Pathologischen Physiologie*, ed. A. Bethe, G. v. Bergmann, G. Embden, and A. Ellinger, pp. 1133–74, Berlin and Heidelberg: Springer, 1931. https://doi.org/10.1007/978-3-642-47376-0_5.

Goldstein, Kurt, *The Organism: A Holistic Approach to Biology Derived from Pathological Data in Man*, New York: American Book Company, 1939.

Goldstein, Kurt, *Human Nature in the Light of Psychopathology*, Cambridge: Harvard University Press, 1951.

Goldstein, Kurt, 'Notes on the Development of my Concepts', *Journal of Individual Psychology*, vol. 15 (1959), pp. 5–14.

Goldstein, Kurt, 'Abnormal Mental Conditions in Infancy', *The Journal of Nervous and Mental Disease*, vol. 128, no. 6 (1959), pp 538–57.

Goldstein, Kurt, *The Organism: A Holistic Approach to Biology Derived from Pathological Data in Man*, New York: Zone Books, 1995.

Goldstein, Kurt, and Martin Scheerer, 'Abstract and Concrete Behavior an Experimental Study with Special Tests', *Psychological Monographs*, vol. 53 (1941), pp. 1–10.

Golt, Joshua, and Rajesh K. Kana, 'History of Autism', in *The Neuroscience of Autism*, ed. Rajesh K. Kana, pp. 1–14, London: Academic Press, 2022.

Gonçalves, Cinara L., Tejaswini Doifode, Victoria L. Rezende, Maiara A. Costa, J. Marc Rhoads, and Cesar A. Soutullo, 'The Many Faces of Microbiota-Gut-Brain Axis in Autism Spectrum Disorder', *Life Sciences*, vol. 337, no. 122357 (2024), n.p. https://doi.org/10.1016/j.lfs.2023.122357.

González, Anahí Gabriela, 'Deshacer la especie: Hacia un antiespecismo en clave feminista queer', *Revista TEL: Tempo, Espaço e Linguagem*, vol. 10, no. 2 (2019), pp. 9–35. https://doi.org/10.5935/2177-6644.20190019.

González, Anahí Gabriela, ‘Lecturas animales de las vidas precarias. El “discurso de la especie” y las normas de lo humano’, *Tabula Rasa,* vol. 31 (2019), pp. 139–59. https://doi.org/10.25058/20112742.n31.06.

González, Anahí Gabriela, ‘Perspectivas actuales sobre el posthumanismo: intersecciones entre colonialismo, capacitismo y discurso de la especie’, *El banquete de los dioses: Revista de Filosofía y Teoría Política Contemporáneas*, no. 13 (2023), pp. 337–57.

González, Anahí Gabriela, ‘Devenir animal, devenir crip: una política situada de los cuerpos que tiemblan’, *Revista Latinoamericana de Estudios Críticos Animales*, vol. 12, no. 1 (2025), pp. 37–75. https://revistaleca.org/index.php/leca/article/view/554.

González, Anahí Gabriela, and Iván Darío Ávila Gaitán, ‘Discapacidad’, in *Glosario de resistencia animal(ista)*, Bogotá: Desde Abajo, 2022.

González, Anahí Gabriela, and María Belén Ballardo, ‘El transfeminismo no es un humanismo: cruces entre animalidad y género’, *Astrolabio: Nueva Época*, vol. 33 (2024), pp. 106–33. https://dx.doi.org/10.55441/1668.7515.n33.41110.

González, Anahí Gabriela, and Martina Davidson, ‘Alianzas salvajes. Hacia un animalismo decolonial, transfeminista y anticapacitista’, *Desbordes*, vol. 13, no. 1 (2022), pp. 11–54. https://doi.org/10.22490/25394150.6775.

González, Anahí Gabriela, and Martina Davidson, ‘Coreografías de la desobediencia: lo crip y lo animal en clave latinoamericana’, *Tabula Rasa*, vol. 57 (2026). https://doi.org/10.25058/20112742.n57.10.

González, Anahí Gabriela, Cassiana Lopes Stephan, Martina Davidson, Berenice Vargas García, and Andrés Leonardo Padilla Ramírez, ‘Editorial. Insurgencias crip, animales y posthumanas: Tramas desde la anti-normalidad’, *Revista Latinoamericana de Estudios Críticos Animales*, vol. 12, no. 1 (2025), pp. 16–34. https://revistaleca.org/index.php/leca/article/view/552.

González Castaño, Héctor, ‘*Le Parasite*, Michel Serres’, *Appareil*, 22 April 2013. https://doi.org/10.4000/appareil.1493.

González-Martínez, Ángela, Susana Muñiz de Miguel, and Francisco Javier Diéguez, ‘New Advances in Attention-Deficit/Hyperactivity Disorder-Like Dogs’, *Animals: An Open Access Journal from MDPI*, vol. 14, no. 14 (2024), p. 2067. https://doi.org/10.3390/ani14142067

Goodfellow, Aiyana (@aiyana.goodfellow), ‘Personhood is Divergent: Neurodivergents Exist Across All Species and Within All Species’, *Instagram*, 14 July 2023, accessed 11 October 2025. https://www.instagram.com/p/CurTa4sqqXc/.

Goodley, Dan, *Dis/ability Studies: Theorising Disablism and Ableism*, London and New York: Routledge, 2014.

Goodley, Dan, Rebecca Lawthom, Kirsty Liddiard, and Katherine Runswick-Cole, 'Posthuman Disability and DisHuman Studies', in *Posthuman Glossary*, ed. Rosi Braidotti and Maria Hlavajova, pp. 342–45, London: Bloomsbury Academic, 2018.

Goodley, Dan, and Katherine Runswick-Cole, 'Becoming Dishuman: Thinking about the Human through Dis/ability', *Discourse: Studies in the Cultural Politics of Education*, vol. 37, no. 1 (2016), pp. 1–15.

Grandgeorge, Marine, 'Les apports de l'animal dans le développement des enfants aux troubles du spectre autistique', *Sens-Dessous*, vol. 16, no. 2 (2015), pp. 17–26. https://doi.org/10.3917/sdes.016.0017.

Grandin, Temple, and Catherine Johnson, *Animals in Translation: Using the Mysteries of Autism to Decode Animal Behavior*, New York: Scribner, 2005.

Grandin, Temple, and Catherine Johnson, *Animals Make Us Human: Creating the Best Life for Animals*, Boston and New York: Mariner Books, 2010.

Grandin, Temple, and Margaret M. Scariano, *Emergence: Labeled Autistic. A True Story*, New York and Boston: Grand Central Publishing, 1996.

Grene, Marjorie, *Approaches to a Philosophical Biology*, New York and London: Basic Books, 1968.

Grenz, Friedemann, *Adornos Philosophie in Grundbegriffen: Auflösung einiger Deutungsprobleme. Mit einem Anhang „Ist die Soziologie eine Wissenschaft vom Menschen? Ein Streitgespräch"*, Frankfurt am Main: Suhrkamp, 1974.

Griffin, Susan, *Woman and Nature: The Roaring Inside Her*, New York: Harper & Row, 1989.

Grinker, Roy Richard, and David Mandell, 'Notes on a Puzzle Piece', *Autism*, vol. 19, no. 6 (2015), pp. 643–5. https://doi.org/10.1177/1362361315589293.

Grivell, Timothy, Helen Clegg, and Elizabeth C. Roxburgh, 'An Interpretative Phenomenological Analysis of Identity in the Therian Community,' *Identity: An International Journal of Theory and Research*, vol. 14 (2014), pp. 113–35. https://doi.org/10.1080/15283488.2014.891999.

Grohmann, Till, *Corps et monde dans l'autisme et la schizophrénie: Approches ontologiques en psychopathologie*, Cham: Springer, 2019.

Grosz, Elizabeth, *Becoming Undone: Darwinian Reflections on Life, Politics, and Art*, Durham and London: Duke University Press, 2011.

Grue, Jan, 'The Problem with Inspiration Porn: A Tentative Definition and a Provisional Critique', *Disability & Society*, vol. 31, no. 6 (2016), pp. 838–49. https://doi.org/:10.1080/09687599.2016.1205473.

Gruen, Lori, ‘Species Trouble: Tensions between Animal Studies and Disability Studies’, Conference presentation at *Philosophy, Disability and Social Change 3*, University of Oxford, *YouTube*, 7 December 2022, accessed 19 February 2025. https://www.youtube.com/watch?v=INmDOBl0ASo.

Gualandi, Alberto, ‘Inhumanités. Anthropobiologie et postmoderne’, *Cahiers critiques de philosophie*, vol. 21, no. 1 (2019), pp. 189–99.

Guillaumin, Colette, *Racism, Sexism, Power and Ideology*, London and New York: Routledge, 1995.

Gunn, Rachel L., Ian R. Hartley, Adam C. Algar, Petri T. Niemelä, and Sally A. Keith, ‘Understanding Behavioural Responses to Human-Induced Rapid Environmental Change: A Meta-Analysis’, *Oikos: Advancing Ecology*, vol. 4, no. e08366 (2022). https://doi.org/10.1111/oik.08366.

Gurwitsch, Aron, ‘Le fonctionnement de l’organisme d’après K. Goldstein’, *Journal de psychologie*, vol. 36 (1939), pp. 107–38.

Gurwitsch, Aron, ‘La science biologique d’après M. K. Goldstein. À la mémoire de Adhémar Gelb’, *Revue Philosophique de la France et de l’Étranger*, vol. 129, no. 3–4 (1940), pp. 244–65.

Habermas, Jürgen, ‘Philosophische Anthropologie: Ein Lexikonartikel’, in *Fischer-Lexikon Philosophie*, ed. A. Diemer and I. Frenzel, Frankfurt am Main: Fischer, 1958, pp. 18–35.

Habermas, Jürgen, ‘Die Kulturkritik der Neokonservativen in den USA und in der Bundesrepublik’, in *Kleine politische Schriften*, Frankfurt am Main: Suhrkamp, 1981, pp. 30–56.

Håbjørg Størmer, Hannah, ‘Autistic Animalization’, *Umerkelig*, 11 May 2025, accessed 10 February 2026. https://www.umerkelig.no/2025/05/autistic-animalization.html.

Haddon, Mark, *The Curious Incident of the Dog in the Night-Time*, London: Vintage Books, 2004.

Haila, Yrjö, ‘Biodiversity and the Divide Between Culture and Nature’, *Biodiversity and Conservation*, vol. 8 (1999), pp. 165–81.

Hake, Ruby, and Emily Hughes, ‘Autism and Gender’ in *Contemporary Philosophy of Autism*, ed. Jami L. Anderson and Simon Cushing, pp. 79–92, New York and London: Routledge, 2026.

Halberstam, Jack, *The Queer Art of Failure*, Durham and London: Duke University Press, 2011.

Hall, Kim Q., ‘Limping Along: Toward a Crip Phenomenology’, *The Journal of Philosophy of Disability*, vol. 1 (2021), pp. 11–33. https://doi.org/10.5840/jpd20218275.

Hamraie, Aimi, and Kelly Fritsch, 'Crip Technoscience Manifesto', *Catalyst: Feminism, Theory, Technoscience*, vol. 5, no. 1 (2019), pp. 1–34. https://doi.org/10.28968/cftt.v5i1.29607.

Haraway, Donna J., *Crystals, Fabrics and Fields: Metaphors that Shape Embryos*, Berkeley: North Atlantic Books, 1976.

Haraway, Donna J., *Simians, Cyborgs, and Women: The Reinvention of Nature*, New York: Routledge, 1991.

Haraway, Donna J. 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century', in *Simians, Cyborgs, and Women: The Reinvention of Nature*, New York: Routledge, 1991, pp. 149–81.

Haraway, Donna J., 'Situated knowledges: The Science Question in Feminism and the Privilege of Partial Perspective'. In *Simians, Cyborgs and Women: The Reinvention of Nature*, New York, and London: Routledge, 1991, pp. 183–201.

Haraway, Donna J., *How Like a Leaf: An Interview with Thyrza Nichols Goodeve*, New York and London: Routledge, 2000.

Haraway, Donna J., *The Companion Species Manifesto: Dogs, People, and Significant Otherness*, Chicago: Prickly Paradigm Press, 2003.

Haraway, Donna J., *When Species Meet*, Minneapolis and London: University of Minnesota Press, 2008.

Haraway, Donna, 'Species Matters, Humane Advocacy: In the Promising Grip of Earthly Oxymorons', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Marianne DeKoven and Michael Lundblad, pp. 17–26, New York: Columbia University Press, 2012.

Haraway, Donna J., *Staying with the Trouble: Making Kin in the Chthulucene*, Durham and London: Duke University Press, 2016.

Haraway, Donna J., *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncoMouse™: Feminism and Technoscience*, New York and London: Routledge, 2018.

Haraway, Donna J., and Cary Wolfe, 'Companions in Conversation', in Donna J. Haraway, *Manifestly Haraway*, Minneapolis and London: University of Minnesota Press, 2016, pp. 199–296.

Harkness, Joe, *Neurodivergent, by Nature: Why Biodiversity Needs Neurodiversity*, London and Dublin: Bloomsbury, 2025.

Harlow, Harry F., Robert O. Dodsworth, and Margaret K. Harlow, 'Total Social Isolation in Monkeys', *Proceedings of the National Academy of Sciences of the United States of America*, vol. 54, no. 1 (1965), pp. 90–7. https://doi.org/10.1073/pnas.54.1.90.

Harrington, Anne, *Reenchanted Science: Holism in German Culture from Wilhelm II to Hitler*, Princeton: Princeton University Press, 1999.

Hécaen, Henry, and Georges Lantéri-Laura, *Évolution des connaissances et des doctrines sur les localisations cérébrales*, Paris: Desclée de Brouwer, 1977.

Hediger, Karin, Herwig Grimm, and Andreas Aigner, 'Ethics of Animal-Assisted Psychotherapy', in *Oxford Handbook of Psychotherapy Ethics*, ed. Manuel Trachsel, Jens Gaab, Nikola Biller-Andorno, Şerife Tekin, and John Z. Sadler, pp. 904–16, Oxford: Oxford University Press, 2019. https://doi.org/10.1093/oxfordhb/9780198817338.013.75.

Heidegger, Martin, *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, Bloomington: Indiana University Press, 1995.

Herbrechter, Stefan, *Posthumanism: A Critical Analysis*, London and New York: Bloomsbury Academic, 2013.

Herbrechter, Stefan, 'Posthumanism's German Genealogies', keynote lecture given at the 'Posthumanism and the Posthuman' conference, University of London, Senate House, 23 March 2023, accessed 12 March 2026, pp. 1–13. https://stefanherbrechter.com/wp-content/uploads/2024/11/Posthumanisms-German-Genealogies.pdf.

Herbrechter, Stefan, *(Un)Learning to Be Human? Collected Essays on Critical Posthumanism, Volume 1*, Leiden and Boston: Brill, 2024.

Herbrechter, Stefan, 'Postfiguration, or, the Desire of the Posthuman', in *(Un)Learning to Be Human? Collected Essays on Critical Posthumanism. Volume 1*, Leiden and Boston: Brill, 2024, pp. 163–207.

Herder, Johann Gottfried, *Essay on the Origin of Language*, New York: Ungar, 1966.

Heredia, Juan Manuel, 'Jakob von Uexküll, an Intellectual History' in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, pp. 17–35, London and New York: Routledge, 2020.

Hesiod, *Theogony & Works and Days*, Oxford and New York: Oxford University Press, 1988.

HeyASD Editorial Team, 'Some of Us Are Vegan. Not to Be Fixed, Just to Be Ourselves', heyasd, n.d., accessed 12 March 2026. https://www.heyasd.com/blogs/autism/vegan-and-vegetarian-diets-for-autism.

Higashida, Naoki, *The Reason I Jump: The Inner Voice of a Thirteen-Year-Old Boy with Autism*, New York: Random House, 2013.

Hochmann, Jacques, *Histoire de l'autisme*, Paris: Odile Jacob, 2009.

Hoerricks, Jaime, ‘There’s Got to Be a Better Way: An Autistic Critique of Capitalism’, *The AutSide*, 19 April 2024, accessed 1 February 2026. https://autside.substack.com/p/theres-got-to-be-a-better-way-an.

Hollin, Gregory, Isla Forsyth, Eva Giraud, and Tracey Potts, ‘(Dis)entangling Barad: Materialisms and Ethics’, *Social Studies of Science*, vol. 47, no. 6 (2017), pp. 918–41. https://doi.org/10.1177/0306312717728344.

Hooge, Anna N. de, ‘Binary Boys: Autism, Aspie Supremacy and Post/Humanist Normativity’, *Disability Studies Quarterly*, vol. 39, no. 1 (2019). https://doi.org/10.18061/dsq.v39i1.6461.

hooks, bell, *Ain’t I a Woman? Black Women and Feminism*, London and Winchester: Pluto Press, 1982.

Hoopman, Kathy, *All Cats Are on the Autism Spectrum*, London and Philadelphia: Jessica Kingsley Publishers, 2020.

Hoquet, Thierry, *Les Presque-Humains. Mutants, cyborgs, robots, zombies... et nous*, Paris: Seuil, 2021.

Hoquet, Thierry, *Le Nouvel Esprit scientifique*, Paris: Presses Universitaires de France, 2022.

Hughes, B. O., and I. J. H. Duncan, ‘The Notion of Ethological “Need”, Models of Motivation and Animal Welfare’, *Animal Behavior*, vol. 36 (1988), pp. 1696–707.

Huguet, Guillaume, Marion Benabou, Thomas Bourgeron, Paolo Sassone-Corsi, and Yves Christen, ‘The Genetics of Autism Spectrum Disorders’, in *A Time for Metabolism and Hormones*, ed. Paolo Sassone-Corsi and Yves Christen, pp. 101–29, Cham: Springer, 2016. https://doi.org/10.1007/978-3-319-27069-2_11.

Husserl, Edmund, *Cartesian Meditations*, Dordrecht: Kluwer Academic Publishers, 1999.

Hylberg, Maria, *Tänk Om: Förskolebarns filosofiska berättanden om och med andra arter*, PhD thesis, Stockholm University, forthcoming.

Irigaray, Luce, *Speculum of the Other Woman*, Ithaca: Cornell University Press, 1985.

Irigaray, Luce, *The Mediation of Touch*, Cham: Palgrave Macmillan, 2024.

Jack, Jordynn, ‘Gender Copia: Feminist Rhetorical Perspectives on an Autistic Concept of Sex/Gender’, *Women’s Studies in Communication* vol. 35, no. 1 (2012), pp. 1–17. https://doi.org/10.1080/07491409.2012.667519.

Jackson, Zakiyyah Iman, *Becoming Human: Matter and Meaning in an Antiblack World*, New York: New York University Press, 2020.

Jackson-Perry, David, ‘The Autistic Art of Failure? Unknowing Imperfect Systems of Sexuality and Gender’, *Scandinavian Journal of Disability Research*, vol. 22, no. 1 (2020), pp. 221–9.

Jenkins, Stephanie, Kelly Struthers Montford, and Chloë Taylor (eds.), *Disability and Animality: Crip Perspectives in Critical Animal Studies*, London and New York: Routledge, 2020.

Jenkins, Stephanie, Kelly Struthers Montford, and Chloë Taylor, 'Disability and Animality: Introduction', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, pp. 1–9, London and New York: Routledge, 2020.

Johnson, Sammy Jo, 'Zoos, Circuses, and Freak Shows: A Cross-Movement Analysis', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, pp. 57–74, London and New York: Routledge, 2020.

Kafer, Alison, *Feminist, Queer, Crip*, Bloomington and Indianapolis: Indiana University Press, 2013.

Kafer, Alison, 'Bodies of Nature: The Environmental Politics of Disability', *Feminist, Queer, Crip*, Bloomington and Indianapolis: Indiana University Press, 2013, pp. 129–48.

Kanfszer, Lucie, Fran Davies, and Suzanne Collins, '"I Was Just so Different": The Experiences of Women Diagnosed with an Autism Spectrum Disorder in Adulthood in Relation to Gender and Social Relationships', *Autism*, vol 21, no. 6 (2017), pp. 661–9. https://doi.org/10.1177/1362361316687987.

Kanner, Leo, 'Autistic Disturbances of Affective Contact', *Nervous Child*, vol. 2 (1943), pp. 217–50.

Kanner, Leo, *Child Psychiatry*, Springfield: C. C. Thomas, 1948.

Kapp, Steven K., 'Profound Concerns About "Profound Autism": Dangers of Severity Scales and Functioning Labels for Support Needs', *Education Sciences*, vol. 13, no. 2, 106 (2023). https://doi.org/10.3390/educsci13020106.

Kather, Cara-Julie, 'We Who Are Not Innocent: On Autistic Girlhood, Sexuality, and Worlding', *Feral Feminisms*, no. 17, forthcoming.

Kedar, Ido, *Ido in Autismland: Climbing Out of Autism's Silent Prison*, 2012.

Kilner, Savannah J., 'Empire of Demands: Sacrifice and Accommodation at the Interstices of Personal and Planetary Crisis', *Feral Feminisms*, no. 17, forthcoming.

Kittay, Eva Feder, 'Comments on Alice Crary's "The Horrific History of Comparisons between Cognitive Disability and Animality (and How to Move Past It)" and Peter Singer's "Response to Crary"', *ZEMO: Journal for Ethics and Moral Philosophy*, vol. 2, no. 1 (2019), pp. 129–33.

Klein, Frank, 'ABA Proponents Attack Autistics: Showing Their True Character', 2004. https://web.archive.org/web/20040419114912/http://home.att.net:80/~ascaris1/attacking-autistics.html.

Klinke, Ian, 'Arguing with Jakob von Uexküll's Umwelten', *GeoHumanities*, vol. 9, no. 2 (2023), pp. 1–18. https://doi.org/10.1080/2373566X.2023.2204138.

Ko, Aph, and Syl Ko, *Aphro-Ism: Essays on Pop Culture, Feminism, and Black Veganism from Two Sisters*, New York: Lantern Publishing, 2020.

Koffman, Sarah, 'The Narcissistic Woman: Freud and Girard', *Diacritics*, vol. 10, no. 3 (1980), pp. 36–45. https://doi.org/10.2307/464774.

Kostet, Imane, 'The (In)visibilisation of "Ethnicity", "Race" and "Culture" as Constructs of Difference in Global North Autism Disparities Research', *Autism*, vol. 0, no. 0 (2025). https://doi.org/10.1177/13623613251355247.

Kourti, Marianthi, and Andrea MacLeod, '"I Don't Feel Like a Gender, I Feel Like Myself": Autistic Individuals Raised as Girls Exploring Gender Identity', *Autism in Adulthood*, vol. 1, no. 1 (2018), pp. 1–8.

Krauss, David, 'The "Uncanny Valley" Is a Lonely Place', *Psychology Today*, 29 November 2022, accessed 22 January 2026. https://www.psychologytoday.com/us/blog/atypical-children-extraordinary-parenting/202211/the-uncanny-valley-is-lonely-place.

Kreutzer, Michel, *Folies animales*, Paris: Le Pommier, 2021.

Latour, Bruno, *We Have Never Been Modern*, Cambridge: Harvard University Press, 1993.

Lawson, Wenn, *The Passionate Mind: How People with Autism Learn*, London and Philadelphia: Jessica Kingsley Publishers, 2010.

Lázaro Terol, Surama, 'Discapacidad en los santuarios de animales: articulando posibilidades de resistencia animal/ista', *Tabula Rasa*, vol. 57 (2026). https://doi.org/10.25058/20112742.n57.11.

Lepeltier, Thomas, 'L'écologie va-t-elle tuer l'antispécisme ?', *L'Amorce: Revue contre le spécisme*, 13 July 2020, accessed 23 October 2025. https://lamorce.co/lecologie-va-t-elle-tuer-lantispecisme/.

Lesser, Mike, and Dinah Murray, 'Mind as a Dynamical System: Implications for Autism' Conference presentation, *Psychobiology of Autism: Current Research & Practice*, Durham, 1998, accessed 12 March 2026. https://monotropism.org/dinah/mind-as-a-dynamical-system/.

Levi, Primo, *If This is a Man*, New York: The Orion Press, 1959.

Levivier, Marc, 'L'hypothèse d'un Homme néoténique comme "grand récit" sous-jacent', *Les Sciences de l'éducation - Pour l'Ère nouvelle*, vol. 44, no. 3 (2011), pp. 77–93. https://doi.org/10.3917/lsdle.443.0077.

Liddiard, Kirsty, Katherine Runswick-Cole, Rebecca Lawthom and Dan Goodley, 'A DisHuman Manifesto: Project DisHuman, UK', in *Manifestos for the Future of Critical Disability Studies: Volume 1*, ed. Katie Ellis, Rosemarie Garland-Thomson, Mike Kent, and Rachel Robertson, pp. 156–65, London and New York: Routledge, 2019.

Lion, Vittoria, 'Disrupting Temple Grandin: Resisting a "Humane" Face for Autistic and Animal Oppression', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, pp. 182–211, London and New York: Routledge, 2020.

Lloyd, Genevieve, *The Man of Reason: Male and Female in Western Philosophy*, London: Methuen, 1984.

Lodé, Thierry, *La Guerre des sexes chez les animaux*, Paris: Odile Jacob, 2006.

Loeb, Jacques, *The Mechanistic Conception of Life: Biological Essays*, Chicago: University of Chicago Press, 1912.

Lorenz, Konrad, 'Über die Bildung des Instinktbegriffes', *Naturwissenschaften*, vol. 25 (1937), pp. 324–31. https://doi.org/10.1007/BF01774269.

Lundblad, Michael, 'From Animal to Animality Studies', *PMLA/Publications of the Modern Language Association of America*, vol. 124, no. 2 (2009), pp. 496–502. https://doi.org/10.1632/pmla.2009.124.2.496.

Lundblad, Michael, 'Archaeology of a Humane Society: Animality, Savagery, Blackness', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Marianne DeKoven and Michael Lundblad, pp. 75–102, New York: Columbia University Press, 2012.

Lundblad, Michael, 'Introduction: The End of the Animal – Literary and Cultural Animalities' in *Animalities: Literary and Cultural Studies Beyond the Human*, ed. Michael Lundblad, pp. 1–21, Edinburgh: Edinburgh University Press, 2017. https://doi.org/10.3366/edinburgh/9781474400022.003.0001.

Lundblad, Michael, 'Animality/Posthumanism/Disability: An Introduction', *New Literary History*, vol. 51, no. 4 (2020), pp. v–xxi. https://doi.org/10.1353/nlh.2020.0040.

Lundblad, Michael, 'Disanimality: Disability Studies and Animal Advocacy', *New Literary History*, vol. 51, no. 4 (2020), pp. 765–95. https://doi.org/10.1353/nlh.2020.0048.

Lundblad, Michael, *Disanimality: When Disability, Illness, and Animality Meet*, Oxford: Oxford University Press, forthcoming.

Lundblad, Michael, and Marianne DeKoven, 'Introduction: Animality and Advocacy', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Michael Lundblad and Marianne DeKoven, pp. 1–16, New York: Columbia University Press, 2012.

Lupa, *A Field Guide to Otherkin*, Stafford: Megalithica Books, 2007.

Lykke, Nina, *Feminist Studies: A Guide to Intersectional Theory, Methodology and Writing*, New York and London: Routledge, 2010.

Lykke, Nina, *Vibrant Death: A Posthuman Phenomenology of Mourning*, New York: Bloomsbury Academic, 2021.

Lykke, Nina, Tara Mehrabi, and Marietta Radomska (eds.), *Routledge International Handbook of Queer Death Studies*, London and New York: Routledge, 2025.

MacCormack, Patricia, *The Ahuman Manifesto: Activism for the End of the Anthropocene*, London and New York: Bloomsbury Academic, 2020.

Magnus, Riin, 'Training Guide Dogs of the Blind with the Phantom Man Method: Historic Background and Semiotic Footing', *Semiotica*, vol. 198 (2014), pp. 181–204. https://doi.org/10.1515/sem-2013-0107.

Makkreel, Rudolf, 'Wilhelm Dilthey', *The Stanford Encyclopedia of Philosophy*, Last Modified Spring 2021, accessed 24 March 2024. https://plato.stanford.edu/archives/spr2021/entries/dilthey.

Malabou, Catherine, *What Should We Do with Our Brain?* New York: Fordham University Press, 2008.

Maldiney, Henri, *Penser l'homme et la folie*, Grenoble: Éditions Jérôme Millon, 2007.

Mallipeddi, Nathan V., and Rachel A. VanDaalen, 'Intersectionality Within Critical Autism Studies: A Narrative Review', *Autism in Adulthood*, vol. 4, no. 4 (2022), pp. 281–9. https://doi.org/10.1089/aut.2021.0014.

Manning, Erin, *Always More Than One: Individuation's Dance*, Durham and London: Duke University Press, 2013.

Manning, Erin, *The Minor Gesture*, Durham and London: Duke University Press, 2016.

Manning, Erin, *For a Pragmatics of the Useless*, Durham and London: Duke University Press, 2020.

Manning, Erin, and Brian Massumi, 'Coming Alive in a World of Texture: For Neurodiversity', in *Dance, Politics and Co-immunity*, ed. Gerald Siegmund and Stefan Hölscher, pp. 73–96, Zurich and Berlin: Diaphanes, 2013.

Manning, Erin, and Brian Massumi, *Thought in the Act: Passages in the Ecology of Experience*, Minneapolis and London: University of Minnesota Press, 2014.

Mansfield, Caroline, Suellen Hopfer, and Theresa M. Marteau, 'Termination Rates After Prenatal Diagnosis of Down Syndrome, Spina Bifida, Anencephaly, and Turner and Klinefelter Syndromes: A Systematic Literature Review. European Concerted Action: DADA (Decision-making After the Diagnosis of a Fetal Abnormality)', *Prenatal Diagnosis,* vol. 19, no. 9 (1999), pp. 808–12.

https://doi.org/10.1002/(SICI)1097-0223(199909)19:9%3C808::AID-PD637%3E3.0.CO;2-B.

Maran, Timo, 'Umwelt Collapse: The Loss of Umwelt-Ecosystem Integration', *Biosemiotics*, vol. 16 (2023), pp. 479–87. https://doi.org/10.1007/s12304-023-09545-8.

Marchesini, Roberto, 'Animals of the City', *Angelaki*, vol. 21, no. 1 (2016), pp. 79–91. http://dx.doi.org/10.1080/0969725X.2016.1163825.

Marchesini, Roberto, 'The Theriosphere', *Angelaki*, vol. 21, no. 1 (2016), pp. 113–35. http://dx.doi.org/10.1080/0969725X.2016.1163832.

Marchesini, Roberto, 'The Therianthropic Being as Our Neighbour', *Angelaki*, vol. 21, no. 1 (2016), pp. 201–16.

Marchesini, Roberto, 'Philosophical Ethology and Animal Subjectivity', *Angelaki*, vol. 21, no. 1 (2016), pp. 237–252. http://dx.doi.org/10.1080/0969725X.2016.1163859.

Marchesini, Roberto, *Over the Human: Post-humanism and the Concept of Animal Epiphany*, Cham: Springer, 2017.

Marchesini, Roberto, *Etologia del desiderio: Riscoprire la propria animalità*, Torino: Lindau, 2023.

Marchesini, Roberto, *Technophysiology, or How Technology Modifies the Self*, Newcastle upon Tyne: Cambridge Scholars Publishing, 2023.

Marchesini, Roberto, 'The Desiring Condition of Animality', n.d., accessed 23 November 2025. https://www.academia.edu/101226204/The_Desiring_Condition_of_Animality.

Marchesini, Roberto, 'State of Unease and Behavioral Pathologies in Animals', *Academia*, n.d., accessed 25 November 2025. https://www.academia.edu/144495477/State_of_Unease_and_Behavioral_Pathologies_in_Animals.

Marchesini, Roberto, and Marco Celentano, *Critical Ethology and Post-anthropocentric Ethics: Beyond the Separation Between Humanities and Life Sciences*, Cham: Springer, 2021.

Markram, Kamila, and Henry Markram, 'The Intense World Theory: A Unifying Theory of the Neurobiology of Autism', *Frontiers in Human Neuroscience*, vol. 4 (2010), pp. 224–9.

Markram, Henry, Tania Rinaldi, and Kamila Markram, 'The Intense World Syndrome: An Alternative Hypothesis for Autism', *Frontiers in Human Neuroscience*, vol. 1 (2007), pp. 77–96.

Martinez, Sabrina, Kalin Stoyanov, and Luis Carcache, 'Unraveling the Spectrum: Overlap, Distinctions, and Nuances of ADHD and ASD in Children', *Frontiers in Psychiatry*, vol. 54 (2024). https://doi.org/10.3389/fpsyt.2024.1387179.

Marx, Karl, *Capital, Vol. 1*, London: Lawrence and Wishart, 1959.

Maturana, Jesús, ‘Therians: The Viral Identity that Challenges the Boundaries between Human and Animal’, *Euronews*, 28 February 2026, accessed 9 March 2026. https://www.euronews.com/culture/2026/02/28/therians-the-viral-identity-that-challenges-the-boundaries-between-human-and-animal.

McCammon, Jasmine M., and Hazel Sive, ‘Addressing the Genetics of Human Mental Health Disorders in Model Organisms’, *Annual Review of Genomics and Human Genetics*, vol. 16 (2015), pp. 173–97. https://doi.org/10.1146/annurev-genom-090314-050048

McCormack, Brian, ‘Life as Performance: Jakob von Uexküll, Hermit Crabs and Meaning as Dynamic Process’, *Interconnections: Journal of Posthumanism*, vol. 1, no. 1 (2021), pp. 8–25. https://doi.org/10.26522/posthumanismjournal.v1i1.2569.

McCullough, Laurence B. ‘Paternalism’, in *Encyclopedia of Global Bioethics*, ed. Henk ten Have, pp. 2157–65, Cham: Springer, 2016. https://doi.org/10.1007/978-3-319-053-0_328.

McGuire, Anne, *War on Autism: On the Cultural Logic of Normative Violence*, Ann Arbor: University of Michigan Press, 2016.

McMillan, Clare A., and Karl A. Pillemer, ‘Translators’ Preface’, in Arnold Gehlen, *Man: His Nature and Place in the World*, New York: Columbia University Press, 1988, pp. *vii–viii*.

McRuer, Robert, *Crip Theory: Cultural Signs of Queerness and Disability*, New York and London: New York University Press, 2006.

Melina, ‘My Brain is Wired Differently and That’s Okay, by Melina’, *NVLD Project*, 19 January 2023, accessed 24 March 2024. https://nvld.org/my-brain-is-wired-differently-and-thats-okay-by-melina/.

Mercer, Jean, ‘International Concerns About Holding Therapy’, *Research on Social Work Practice*, vol. 24, no. 2 (2013), pp. 188–91. https://doi.org/10.1177/1049731513497518.

Merleau-Ponty, Maurice, *The Structure of Behavior*, Boston: Beacon Press, 1963.

Merleau-Ponty, Maurice, *Nature: Course Notes from the Collège de France*, Evanston: Northwestern University Press, 2003.

Merleau-Ponty, Maurice, *Phenomenology of Perception*, London and New York: Routledge, 2012.

Michelini, Francesca, ‘Introduction: A Foray into Uexküll’s Heritage’ in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, pp. 1–13, London and New York: Routledge, 2020.

Miller, Arnold, and Eileen Eller-Miller, *From Ritual to Repertoire: A Cognitive-Developmental Systems Approach with Behavior-Disordered Children*, New York: Wiley, 1989.

Miloa, ‘HS-HA’, n.d., accessed 25 November 2025. https://miloa.eu/en/glossary/diseases/hs-ha/.

Milton, Damian, 'On the Ontological Status of Autism: The "Double Empathy Problem"', *Disability & Society*, vol. 27, no. 6 (2012), pp. 883–7. http://dx.doi.org/10.1080/09687599.2012.710008.

Milton, Damian, 'Becoming Autistic: An Aut-ethnography', *Cutting Edge Psychiatry in Practice*, vol. 4 (2014), pp. 185–92.

Milton, Damian, and Sara Ryan, *The Routledge International Handbook of Critical Autism Studies*, New York and London: Routledge, 2024.

Mirra, Hendl H., 'Holotropism: A Multi-Dimensional, Spacious, Edgeless Terrain', *Medium*, 4 July 2023, accessed 22 September 2025. https://hmirra.medium.com/holotropism-1cdf99c00b74.

Mitchell, David T., and Sharon L. Snyder, *Narrative Prosthesis: Disability and the Dependencies of Discourse*, Ann Arbor: The University of Michigan Press, 2000.

Mitchell, David T., and Sharon L. Snyder, 'Precarity and Cross-Species Identification: Autism, the Critique of Normative Cognition, and Nonspeciesism', in *Disability Studies and the Environmental Humanities: Toward an Eco-Crip Theory*, ed. Sarah Jaquette Ray and Jay Sibara, pp. 553–72, Lincoln and London: University of Nebraska Press, 2017.

Mitchell, David T., Sharon L. Snyder, and Linda Ware, '"[Every] Child Left Behind": Curricular Cripistemologies and the Crip/Queer Art of Failure', *Journal of Literary & Cultural Disability Studies*, vol. 8, no. 3 (2014), pp. 295–313.

Moir, Cat, 'Biocentrism and Marxism: Bloch's Concept of Life and the *Spirit of Utopia*', *Praktyka Teoretyczna*, vol. 35, no. 1 (2020), pp. 15–34. https://doi.org/10.14746/prt2020.1.2.

Mollow, Anna, 'Is Sex Disability? Queer Theory and the Disability Drive', in *Sex and Disability*, ed. Robert McRuer and Anna Mollow, pp. 285–312, Durham and London: Duke University Press, 2012. https://doi.org/10.1215/9780822394877.

Monroe, Hannah, 'Ableism, Speciesism, Animals, and Autism', in *Animaladies: Gender, Animals, and Madness*, ed. Lori Gruen and Fiona Probyn-Rapsey, pp. 89–99, New York and London: Bloomsbury Academic, 2018.

Mortimer-Sandilands, Catriona, *The Good-Natured Feminist: Ecofeminism and the Quest for Democracy*, Minneapolis and London: University of Minnesota Press, 1999.

Mortimer-Sandilands, Catriona, and Bruce Erickson, *Queer Ecologies: Sex, Nature, Politics, Desire*, Bloomington and Indianapolis: Indiana University Press, 2010.

Moten, Fred, and Stefano Harney, *The Undercommons: Fugitive Planning and Black Study*, Wivenhoe, New York, and Port Watson: Minor Compositions, 2013.

Moulton, Derek E., Hadrien Oliveri, and Alain Goriely, 'Multiscale Integration of Environmental Stimuli in Plant Tropism Produces Complex Behaviors', *Proceedings of*

the National Academy of Sciences of the United States of America, vol. 117, no. 51 (2020), pp. 32226–37. https://doi.org/10.1073/pnas.2016025117.

Moya Diaz, Iván, 'Canguilhem avec Goldstein. De la normativité de la vie à la normativité de la connaissance', *Revue d'histoire des sciences*, vol. 71, no. 2 (2018), pp. 179–204. https://doi.org/10.3917/rhs.712.0179.

Moya Diez, Iván, 'Coming to Terms with "Self-Actualization": The Reception of Kurt Goldstein in Humanistic Psychotherapy', *Philosophia Scientiæ*, vol. 28, no. 3 (2024), pp. 55–73.

Mukhopadhyay, Tito Rajarshi, *How Can I Talk If My Lips Don't Move?* New York: Arcade Publishing, 2014.

Mukhopadhyay, Tito Rajarshi, *Plankton Dreams: What I Learned in Special-Ed*, London: Open Humanities Press, 2015.

Mulligan, Deborah L., 'Section 1: Enhancing Teaching and Teacher Education with Autoethnography: Introduction', in *The Routledge International Handbook of Autoethnography in Educational Research*, ed. Emilio A. Anteliz, Deborah L. Mulligan, and Patrick Alan Danaher, pp. 11–12, London and New York: Routledge, 2022.

Murray, Dinah, 'Attention Tunnelling and Autism', *Living with Autism: The Individual, the Family, and the Professional*, Durham conference proceedings, 1992, accessed 22 April 2025. https://monotropism.org/dinah/attention-tunnelling-and-autism/.

Murray, Dinah, 'UCL, Linguistics, and Autism', Paper presentation at the Alumni reunion, University College London, Department of Phonetics and Linguistics, 2003, accessed 22 April 2025. https://monotropism.org/dinah/ucl-linguistics-and-autism/.

Murray, Dinah, 'Monotropism – An Interest Based Account of Autism', in *Encyclopedia of Autism Spectrum Disorders*, ed. F. R. Volkmar, pp. 1–3, Cham: Springer, 2018. https://doi.org/10.1007/978-1-4614-6435-8_102269-1.

Murray, Dinah, 'Dimensions of Difference', in *The Neurodiversity Reader: Exploring Concepts, Lived Experience and Implications for Practice*, ed. Damian Milton, pp. 18–34, Shoreham by Sea: Pavilion Publishing, 2020.

Murray, Dinah, Mike Lesser, and Wenn Lawson, 'Attention, Monotropism and the Diagnostic Criteria for Autism', *Autism*, vol. 9, no. 2 (2005), pp. 139–56. http://doi.org/10.1177/1362361305051398.

Murray, Dinah, Damian Milton, Jonathan Green, and Jo Bervoets, 'The Human Spectrum: A Phenomenological Enquiry within Neurodiversity', *Psychopathology*, vol. 56 (2023), pp. 220–30. https://doi.org/10.1159/000526213.

Murray, Fergus, ‘On Psychological Theories of Autism’, *Oolong*, 15 September 2018, accessed 22 April 2025. https://oolong.medium.com/on-psychological-theories-of-autism-fbe3e3d039a5.

Murray, Fergus, ‘Me and Monotropism: A Unified Theory of Autism’, *The Psychologist*, 30 November 2018, accessed 22 April 2025. https://www.bps.org.uk/psychologist/me-and-monotropism-unified-theory-autism.

Murray, Fergus, ‘Making Sense of Autism: Monotropism and the Mind as an Interest System’, *YouTube*, April 18, 2021, accessed 22 April 2025. https://www.youtube.com/watch?v=KKhfp_ABjcM.

Murray, Fergus, ‘Autism and Scientism: Why Science is not Always the Best Way to Learn About Autism’, *Oolong*, 7 January 2022, accessed 22 April 2025. https://oolong.medium.com/autism-and-scientism-b7fd4c9e08a6.

Murray, Fergus, and Wenn Lawson, ‘History of Monotropism’, *Monotropism*, 2022, accessed 22 April 2025. https://monotropism.org/history/.

Murray, Fergus, and Sonny Hallett, ‘ADHD and Monotropism’, *Monotropism*, 2023, accessed 22 April 2025. https://monotropism.org/ADHD/.

Murray, Stuart, *Autism,* New York: Routledge, 2012.

Murray, Stuart, ‘Autism and the Posthuman’, in *Worlds of Autism: Across the Spectrum of Neurological Difference*, ed. Joyce Davidson and Michael Orsini, pp. 53–72, Minneapolis and London: University of Minnesota Press, 2013.

Nagai, Hiroki, and Young Hak Kim, ‘Cancer Prevention from the Perspective of Global Cancer Burden Patterns’, *Journal of Thoracis Disease*, vol. 9, no. 3 (2017), pp. 448–51. https://doi.org/10.21037/jtd.2017.02.75.

Nair, Vishnu K. K., Warda Farah, and Mildred Boveda, ‘Is Neurodiversity a Global Northern White Paradigm?’, *Autism*, vol. 30, no. 2 (2024), pp. 544–51. https://doi.org/10.1177/13623613241280835.

Nakamura, Jeanne, and Mihály Csikszentmihalyi, ‘Flow Theory and Research’, in *Oxford Handbook of Positive Psychology*, ed. Shane Lopez and C. R. Snyder, pp. 195–206, Oxford: Oxford University Press, 2009.

Navon, Daniel, and Gil Evil, ‘Looping Genomes: Diagnostic Change and the Genetic Makeup of the Autism Population’, *American Journal of Sociology*, vol. 121, no. 5 (2016), pp. 1416–71. https://doi.org/10.1086/684201.

ND Hums, ‘Call for Abstracts: Critical Neurodiversity Studies, 24–26 June 2025, Durham, UK’, *The Neurodivergent Humanities Network*, n.d., accessed 26 January 2026. https://ndhumanities.com/2024/12/17/call-for-abstracts-critical-neurodiversity-studies-24-26-june-2025-durham-uk/.

Neimanis, Astrida, *Bodies of Water: Posthuman Feminist Phenomenology*, London and New York: Bloomsbury Academic, 2017.

Nelson, Nicole C., *Model Behavior: Animal Experiments, Complexity, and the Genetics of Psychiatric Disorders*, Chicago: The University of Chicago Press, 2018.

Neumeier, Shain M., '"To Siri with Love" and the Problem with Neurodiversity Lite', *Rewire News Group*, 9 February 2018, accessed 5 September 2025. https://rewirenewsgroup.com/2018/02/09/siri-love-problem-neurodiversity-lite/.

Nocella II, Anthony J., Amber E. George, and J. L Schatz (eds.), *The Intersectionality of Critical Animal, Disability, and Environmental Studies: Toward Eco-ability, Justice, and Liberation*, London: Lexington Books, 2017.

Nordmann, Jean-François, 'Le renversement opéré par Kurt Goldstein et par Erwin Straus : le réflexe comme comportement', in *Penser le comportement animal. Contribution à une critique du réductionnisme*, ed. Florence Burgat, pp. 171–91, Paris and Versailles: Éditions de la Maison des sciences de l'homme and Éditions Quæ, 2010.

Ochoa, Peggy, 'The Historical Moments of Postcolonial Writing: Beyond Colonialism's Binary', *Tulsa Studies in Women's Literature*, vol. 15, no. 2 (1996), pp. 221–9. https://doi.org/10.2307/464132.

O'Haire, Marguerite, 'Animal-Assisted Intervention for Autism Spectrum Disorder: A Systematic Literature Review', *Journal of Autism and Developmental Disorders*, vol 43, no. 7, art. 1606-22 (2013). https://doi.org/10.1007/s10803-012-1707-5.

Okun, Tema, 'either/or & the binary', *White Supremacy Culture*, n.d., accessed 15 February 2026. https://www.whitesupremacyculture.info/eitheror--the-binary.html.

Oliver, Kelly, 'Service Dogs: Between Animal Studies and Disability Studies', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, pp. 111–28, London and New York: Routledge, 2020.

Oliver, Mike, 'The Politics of Disablement', *Disability, Handicap & Society*, vol. 5, no. 3 (1990), pp. 187–200.

Omeiza, Kala Allen, *Autistic and Black: Our Experiences of Growth, Progress and Empowerment*, London and Philadelphia: Jessica Kingsley Publishers, 2024.

Ortega, Francisco, 'The Cerebral Subject and the Challenge of Neurodiversity', *BioSocieties*, vol. 4 (2009), pp. 425–45. https://doi.org/10.1017/S1745855209990287

Ortega Francisco, 'Cerebralizing Autism within the Neurodiversity Movement', in *Worlds of Autism: Across the Spectrum of Neurological Difference*, ed. Joyce Davidson and Michael Orsini, pp. 73–95, Minneapolis and London: University of Minnesota Press, 2013.

Ortega, Francisco, and Fernando Vidal, 'Mapping the Cerebral Subject in Contemporary Culture', *RECIIS—Electronic Journal of Communication Information & Innovation in Health*, vol. 2 (2007), pp. 255–9. https://doi.org/10.3395/reciis.v1i2.90en.

Ortega, Francisco, and Fernando Vidal (eds.) *Neurocultures: Glimpses into an Expanding Universe*, Berlin: Peter Lang Verlag, 2021.

Ortega, Francisco, and Fernando Vidal, 'Approaching the Neurocultural Spectrum: An Introduction', in *Neurocultures: Glimpses into an Expanding Universe*, ed. Francisco Ortega and Fernando Vidal, pp. 7–27, Berlin: Peter Lang Verlag, 2021.

Ostachuk, Agustín, 'The Organism and its Umwelt: A Counterpoint Between the Theories of Uexküll, Goldstein, and Canguilhem', in *Jakob von Uexküll and Philosophy: Life, Environments, Anthropology*, ed. Francesca Michelini and Kristian Köchy, pp. 158–71, London and New York: Routledge, 2020.

Owen-Ashley, Noah T., Dennis Hasselquist, John C. Wingfield, 'Androgens and the Immunocompetence Handicap Hypothesis: Unraveling Direct and Indirect Pathways of Immunosuppression in Song Sparrows', *The American Naturalist*, vol. 164, no. 4 (2004), pp. 490–505. https://doi.org/10.1086/423714.

Pagan, Matteo, and Marco Dal Pozzolo, 'From the Harmony to the Tension: Helmuth Plessner and Kurt Goldstein's Readings of Jakob von Uexküll', *History and Philosophy of the Life Sciences*, vol. 46, no. 9 (2024). https://doi.org/10.1007/s40656-024-00607-9.

Parikka, Jussi, *Insect Media: An Archeology of Animals and Technology*, Minneapolis/London: University of Minnesota Press, 2010.

Patel, Jheel, Jodi Lukkes, and Anantha Shekhar, 'Overview of Genetic Models of Autism Spectrum Disorders', *Progress in Brain Research*, vol. 241 (2018), pp. 1–36. https://doi.org/10.1016/bs.pbr.2018.10.002.

Patterson, Charles, *Eternal Treblinka: Our Treatment of Animals and the Holocaust*, New York: Lantern Books, 2002.

Pedersen, J., and Tyge Schelde, 'Behavioral Aspects of Infantile Autism: An Ethological Description', *European Child & Adolescent Psychiatry*, vol. 6 (1997), pp. 96–106.

Pegoraro, Luiz F. L., Eleonore Z. F. Setz, and Paulo Dalgalarrondo, 'Ethological Approach to Autism Spectrum Disorders', *Evolutionary Psychology*, vol. 12, no. 1 (2014), pp. 223–44.

Pellicano, Elizabeth, Adam Dinsmore, and Tony Charman, 'What Should Autism Research Focus Upon? Community Views and Priorities from the United Kingdom', *Autism: The International Journal of Research and Practice*, vol. 18, no. 7 (2014), pp. 756–70. https://doi.org/10.1177/1362361314529627.

Pensky, Max, 'Anti-Dialectics: Arnold Gehlen and the Fate of Conservative Philosophical Anthropology in Post-War Germany', in *Perspektiven konservativen Denkens: Deutschland und die Vereinigten Staaten nach 1945*, ed. Peter Uwe Hohendahl and Erhard Schütz, pp. 205–22, Bern: Peter Lang, 2012.

Peralta, Jose M., and Aubrey H. Fine (Eds.), *The Welfare of Animals in Animal-Assisted Interventions: Foundations and Best Practice Methods*, Cham: Springer, 2021.

Piazzesi, Benedetta, *Del governo degli animali: Allevamento e biopolitica*, Macerata: Quodlibet, 2023.

Pintos, María-Luz, 'Gurwitsch, Goldstein, Merleau-Ponty. Analyse d'une étroite relation', *Chiasmi International*, vol. 6 (2005), pp. 147–70. https://doi.org/10.5840/chiasmi2005686.

Plante, Courtney N., Stephen Reysen, Sharon E. Roberts, and Kathleen Gerbasi, '"Animals Like Us": Identifying with Nonhuman Animals and Support for Nonhuman Animal Rights', *Anthrozoös*, vol. 31, no. 2 (2018), pp. 165–77. https://doi.org/10.1080/08927936.2018.1434045.

Plessner, Helmuth, *The Levels of Organic Life and the Human: An Introduction to Philosophical Anthropology*, New York: Fordham University Press, 2019.

Plumwood, Val, *Feminism and the Mastery of Nature*, New York and London: Routledge, 1993.

Pluralpedia, 'Plurality', last modified 12 April 2025, accessed 3 June 2025. https://pluralpedia.org/w/Plurality.

Porcher, Jocelyne, 'L'animal d'élevage n'est pas si bête', *Ruralia*, vol. 14 (2004). http://journals.openedition.org/ruralia/971.

Portmann, Adolf, *Animal Forms and Patterns: A Study of the Appearance of Animals*, New York: Schocken Books, 1967.

Prahlad, Anand, *The Secret Life of a Black Aspie: A Memoir*, Fairbanks: University of Alaska Press, 2017.

Preciado, Paul B., *Testo Junkie: Sex, Drugs, and Biopolitics in the Pharmacopornographic Era*, New York: The Feminist Press, 2013.

Preciado, Paul B., *Countersexual Manifesto*, New York: Columbia University Press, 2018.

Preciado, Paul B., 'Feminism Is Not Humanism', in *An Apartment on Uranus: Chronicles of the Crossing*, South Pasadena: Semiotext(e), 2020, pp. 91–3.

Preciado, Paul B., *Dysphoria Mundi: A Diary of Planetary Transition*, London: Fitzcarraldo Editions, 2025.

Price, Devon, *Unmasking Autism: Discovering the New Faces of Neurodiversity*, New York: Harmony Books, 2022.

Prince-Hughes, Dawn, *Songs of the Gorilla Nation: My Journey Through Autism*, New York: Three Rivers Press, 2004.

Prince-Hughes, Dawn, CASY Cultural Autism Studies at Yale, *Facebook*, 25 March 2025.

Prince-Hughes, Dawn, CASY Cultural Autism Studies at Yale, *Facebook*, 20 February 2025.

Probyn-Rapsey, Fiona, 'The "Crazy Cat Lady"', in *Animaladies: Gender, Animals, and Madness*, ed. Lori Gruen and Fiona Probyn-Rapsey, pp. 175–85, New York and London: Bloomsbury Academic, 2018.

Proctor, Devin, 'On Being Non-Human: Otherkin Identification and Virtual Space', PhD thesis, George Washington University, ProQuest (13810285), 2019.

Puar, Jasbir, *The Right to Maim: Debility, Capacity, Disability*, Durham and London: Duke University Press, 2017.

Purkis, Yenn, and Wenn Lawson, *The Autistic Trans Guide to Life*, London and Philadelphia: Jessica Kingsley Publishers, 2021.

Putigny-Ravet, Laetitia, and Éva-Marie Golder, 'Brève histoire d'un terme surfait', *Journal français de psychiatrie*, vol. 44, no. 2 (2016), pp. 37–46. https://doi.org/10.3917/jfp.044.0037.

Pyne, Jake, 'Autistic Disruptions, Trans Temporalities: A Narrative "Trap Door" in Time', *South Atlantic Quarterly*, vol. 120, no. 2 (2021), pp. 343–61. https://doi.org/10.1215/00382876-8916088.

Ramiel, Evelyn, 'The Autistic Process: Research Through the Overwhelming', *Environmental History Now: A Platform on Representation, Engagement, and Community*, 10 April 2019, accessed 10 February 2026. https://envhistnow.com/2019/04/10/the-autistic-process-research-through-the-overwhelming/.

Ray, Sarah Jaquette, and Jay Sibara (eds.), *Disability Studies and the Environmental Humanities: Toward an Eco-Crip Theory*, Lincoln: University of Nebraska Press, 2017.

Rehberg, Karl-Siegbert, 'Arnold Gehlen's Elementary Anthropology—An Introduction' in Arnold Gehlen, *Man: His Nature and Place in the World*, New York: Columbia University Press, 1988, pp. *ix–xxxvi*.

Reichholf, Josef H., 'L'expression de la beauté versus l'adaptation darwinienne', in *Phénoménologie de la vie animale*, ed. Florence Burgat and Cristian, pp. 47–63, Bucharest: Zeta Books, 2016.

Rehn, Amy Kate, Victoria Rose Caruso, and Saravana Kumar, 'The Effectiveness of Animal-Assisted Therapy for Children and Adolescents with Autism Spectrum Disorder: A Systematic Review', *Complementary Therapies in Clinical Practice*, vol. 50, art. 101719 (2023). https://doi.org/10.1016/j.ctcp.2022.101719.

Rekers, George, and Ivar Løvaas, 'Behavioral Treatment of Deviant Sex-Role Behaviors in a Male Child', *Journal of Applied Behavior Analysis*, vol. 7, no. 2 (1974), pp. 173–90. https://doi.org/10.1901/jaba.1974.7-173.

Restrepo-Giraldo, Laura, 'Cyborg Umwelt: The Practice of Speculative Fabulation as an Approach to Non-human Animals' Alterity', forthcoming.

Rimland, Bernard, *Infantile Autism: The Syndrome and Its Implications for a Neural Theory of Behavior*, New York: Appleton-Century-Crofts, 1964.

Rizzo, Elisabetta Angela and Tina Röck, 'Autistics as Empathic Subjects: Phenomenology and Intense World Theory', *Phenomenology and Mind*, vol. 21 (2021), pp. 34–46.

Roberts, M.L., K.L. Buchanan, and M.R. Evans, 'Testing the Immunocompetence Handicap Hypothesis: A Review of the Evidence', *Animal Behaviour*, vol. 68, no. 2 (2004), pp. 227–39. https://doi.org/10.1016/j.anbehav.2004.05.001.

Robertson, Venetia Laura Delano, 'The Law of the Jungle: Self and Community in the Online Therianthropy Movement', *The Pomegranate*, vol. 14, no. 2 (2012), pp. 256–80. https://doi.org/10.1558/pome.v14i2.280.

Robertson, Venetia Laura Delano, 'The Beast Within: Anthrozoomorphic Identity and Alternative Spirituality in the Online Therianthropy Movement', *Nova Religio*, vol. 16, no. 3 (2013), pp. 7–30. https://doi.org/10.1525/nr.2013.16.3.7.

Rodriguez, Paul, 'Talking Brains: A Cognitive Semantic Analysis of an Emerging Folk Neuropsychology', *Public Understanding of Science,* vol. 15 (2006), pp. 301–30. https://doi.org/10.1177/0963662506063923.

Rogowska-Stangret, Monika, 'Relationality Inside-out: Revisiting the Relational Turn in Critical Posthumanities', in *Biological Relationalism: The Relational Turn in Contemporary Science, Theory, and Politics*, ed. Aurore Franco-Ricord and Ombre Tarragnat, Cham: Springer, forthcoming.

Rose, Kieran, and Josh Knowles, 'Monotropism: Setting up the Science', video in Fergus Murray, 'Explanations', *Monotropism*, n.d., accessed 22 April 2025. https://monotropism.org/explanations/.

Rosmalen, Lenny van, René van der Veer, and Frank CP van der Horst, 'The Nature of Love: Harlow, Bowlby and Bettelheim on Affectionless Mothers', *History of Psychiatry*, vol. 31, no. 2 (2020), pp. 227–31. https://doi.org/10.1177/0957154X19898997.

Sacks, Oliver, *An Anthropologist on Mars: Seven Paradoxical Tales*, New York: Alfred A. Knopf, 1995.

Sacks, Oliver, 'Foreword', in Temple Grandin, *Thinking in Pictures and Other Reports from my Life with Autism,* New York: Random House, 1995.

Sagal, Jérôme, *Dix questions sur l'antispécisme. Comprendre la cause animale*, Montreuil: Libertalia, 2021.

Saketopoulou, Avgi, and Ann Pellegrini, *Gender Without Identity*, New York: New York University Press, 2024.

Salmen, Alina, and Kristof Dhont, 'Animalizing Women and Feminizing (Vegan) Men: The Psychological Intersections of Sexism, Speciesism, Meat, and Masculinity', *Social and Personality Psychology Compass*, vol. 17, no. 2 (2023). https://doi.org/10.1111/spc3.12717.

Salomon, Daniel, 'From Marginal Cases to Linked Oppressions: Reframing the Conflict between the Autistic Pride and Animal Rights Movements', *Journal for Critical Animal Studies*, vol. 8, no. 1–2 (2010), pp. 47–72.

Samain, Didier, 'Le béhaviorisme sémiotique de Jakob von Uexküll', *Histoire Épistémologie Langage*, vol. 43, no. 2 (2021). https://doi.org/10.4000/hel.1209.

Santinele Martino, Alan, and Sarah May Lindsay, 'Introduction: The Intersections of Critical Disability Studies and Critical Animal Studies', *Canadian Journal of Disability Studies*, vol. 9, no. 2 (2020), pp. 1–9. https://doi.org/10.15353/cjds.v9i2.623.

Savarese, Ralph, 'From Neurodiversity to Neurocosmopolitanism: Beyond Mere Acceptance and Inclusion', in *Ethics and Neurodiversity*, ed. C. D. Herrera and Alexandra Perry, pp. 191–205, Newcastle upon Tyne: Cambridge Scholars Press, 2013.

Sax, Boria, 'Zootropia, Kinship, and Alterity in the Work of Roberto Marchesini', *Angelaki*, vol. 21, no. 1 (2016), pp. 7–13. https://doi.org/10.1080/0969725X.2016.1163067.

Scala, Marcello, Clarissa A. Bradley, Jennifer L. Howe, Brett Trost, Nelson Bautista Salazar, Carole Shum, Marla Mendes, Miriam S. Reuter, Evdokia Anagnostou, Jeffrey R. MacDonald, Sangyoon Y. Ko, Paul W. Frankland, Jessica Charlebois, Mayada Elsabbagh, Leslie Grander, George Anadiotis, Verdiana Pullado, Alfredo Brusco, Roberto Keller, Sarah Parisotto, Helio F. Pedro, Laina Lusk, Pamela Pojomovsky McDonnell, Ingo Helbig, Sureni V. Mullegama, Undiagnosed Diseases Network, Emilie D. Douine, Rosario Ivetth Corona, Bianca E. Russell, Stanley F. Nelson, Claudio Graziano, Maria Schwab, Laurie Simone, Federico Zara, and Stephen W. Scherer, 'Genetic Variants in DDX53 Contribute to Autism Spectrum Disorder Associated with the Xp22.11 Locus', *The American Journal of Human Genetics*, vol. 112, no. 1 (2025), pp. 154–67. https://doi.org/10.1016/j.ajhg.2024.11.003.

Scheerer, Martin, Eva Rothmann, and Kurt Goldstein, 'A Case of "Idiot Savant": An Experimental Study of Personality Organization, *Psychological Monographs*, vol. 58, no. 4 (1945), pp. 1–63.

Schelde, Tyge, 'Ethological Research in Psychiatry', *Ethology and Sociobiology*, vol. 15, no. 5–6 (1994), pp. 349–68. https://doi.org/10.1016/0162-3095(94)90008-6.

Schnödl, Gottfried, and Florian Sprenger, *Uexküll's Surroundings: Umwelt Theory and Right-Wing Thought*, Lüneberg: Meson Press, 2021.

Schroer, Sara Asu, 'Jakob von Uexküll: The Concept of *Umwelt* and Its Potentials for an Anthropology Beyond the Human', *Ethnos*, vol. 86, no. 1 (2019), pp. 132–52. https://doi.org/10.1080/00141844.2019.1606841.

Segarra, Marta, *Humanimaux. Où placer les frontières de l'humain ?* Paris: Hermann, 2024.

Senior, Matthew, David L. Clark, and Carla Freccero, 'Editors' Preface: "Ecce animot": Postanimality from Cave to Screen', *Yale French Studies*, no. 127 (2015), pp. 1–18.

Serres, Michel, *The Parasite*, Minneapolis and London: University of Minnesota Press, 2007.

Seymour, Nicole, *Strange Natures: Futurity, Empathy, and the Queer Ecological Imagination*, Urbana, Chicago, and Springfield: University of Illinois Press, 2013.

Shakespeare, Tom, 'The Social Model of Disability', in *Disability Studies Reader*, ed. Lennard J. Davis, pp. 209–18, New York: Routledge, 2006.

Shakespeare, Tom, *Disability Rights and Wrongs Revisited*, London and New York: Routledge, 2014.

Sharon, Gil, Nikki Jamie Cruz, Dae-Wook Kang, Michael J. Gandal, Bo Wang, Young-Mo Kim, Erika M. Zink, Cameron P. Casey, Bryn C. Taylor, Christianne J. Jane, Lisa M. Bramer, Nancy G. Isern, David W. Hoyt, Cecilia Noecker, Michael J. Sweredowski, Annie Moradian, Elhanan Borenstein, Janet K. Jansson, Rob Knight, Thomas O. Metz, Carlos Lois, Daniel H. Geschwind, Rosa Krajmalnik-Brown, and Sarkis K. Mazmanian, 'Human Gut Microbiota from Autism Spectrum Disorder Promote Behavioral Symptoms in Mice', *Cell*, vol. 117, no. 6 (2019), p. 1600–18. https://doi.org/10.1016/j.cell.2019.05.004.

Sheffer, Edith, *Asperger's Children: The Origins of Autism in Nazi Vienna*, New York and London: W.W. Norton & Company, 2018.

Shildrick, Margrit, *Visceral Prostheses: Somatechnics and Posthuman Embodiment*, London, New York, and Dublin, Bloomsbury Academic, 2022.

Shiva, Vandana, *Staying Alive: Women, Ecology and Development*, London: Zed Books, 1989.

Silberman, Steve, *NeuroTribes: The Legacy of Autism and the Future of Neurodiversity*, New York: Avery, 2015.

Silverman, Chloe, 'Birdwatching and Baby-watching': Niko and Elisabeth Tinbergen's Ethological Approach to Autism', *History of Psychiatry*, vol. 21, no. 2 (2010), pp. 176–89. http://doi.org/10.1177/0957154X10367875.

Silverman, Chloe, 'What do Autistic People Want from Autism Research?', *Behavioral and Brain Sciences*, vol. 42, no. e111 (2019). https://doi.org/10.1017/S0140525X18002522.

Sinclair, Jim, 'If You Love Something, You Don't Kill It', 1998. https://web.archive.org/web/20080330071836/web.syr.edu/~jisincla/killing.htm.

Singer, Judy, *Odd People In. The Birth of Community amongst People on the "Autistic Spectrum"*, Honours dissertation, University of Technology Sydney, 1998.

Singer, Judy, *NeuroDiversity: The Birth of an Idea*, 2016.

Singer, Judy, Twitter/X, 12 March 2020, accessed 24 March 2024. https://twitter.com/singer_judy/status/1238187763112923142.

Singer, Judy, 13 June 2023, accessed via Camilla Asra Engelby, 'Transphobic Actions that has Devastated the Neurodiversity Community', accessed 24 March 2024. https://www.engelby.dk/transphobia-and-the-neurodivergent-community/.

Singer, Judy, Twitter/X, 10 November 2023, accessed 24 March 2025. https://twitter.com/singer_judy/status/1722899819440832770.

Singer, Judy, 'Judy Singer's Official Definition of Neurodiversity', n.d., accessed 24 March 2024. https://neurodiversity2.blogspot.com/p/what.html.

Singh, Jennifer S., *Multiple Autisms: Spectrums of Advocacy and Genomic Science*, Minneapolis and London: University of Minnesota Press, 2015.

Skinner, Burrhus Frederic, *The Behavior of Organisms: An Experimental Analysis*, New York: Appleton-Century-Crofts, 1938.

Slaton, Jen, 'Are You Neurodivergent? Understand How Your Brain is Wired', *Witi*, 7 February 2021, accessed 24 March 2024. https://witi.com/articles/1879/Understand-How-Your-Brain-is-Wired---Neurodiversity-is-the-New-Normal/.

Smilges, J. Logan, *Crip Negativity*, Minneapolis and London: University of Minnesota Press, 2023.

Solomon, Olga, '"But–He'll fall!": Children with Autism, Interspecies Intersubjectivity, and the Problem of "Being Social"', *Culture, Medicine, and Psychiatry: An International Journal of Cross-Cultural Health Research,* vol. 39, no. 2 (2015), pp. 323–44. https://doi.org/10.1007/s11013-015-9446-7.

Sommer, Christian, 'Présentation de l'édition française', in Arnold Gehlen, *L'Homme. Sa nature et sa position dans le monde*, Paris, Gallimard, 2020, pp. 7–27.

Sommer, Christian, 'Anthropologie philosophique et post-humanisme', presentation given as part of a research seminar 'L'anthropologie philosophique allemande' organised by Barbara Carnevali, Claudia Nigrelli, and Matteo Pagan, at the École des Hautes Études en Sciences Sociales, 24 May 2023.

Sparrow, Max, *Spectrums: Autistic Transgender People in Their Own Words*, London and Philadelphia: Jessica Kingsley Publishers, 2020.

Spivak, Gayatri Chakravorty, 'Subaltern Studies: Deconstructing Historiography', in *The Spivak Reader*, ed. Donna Landry and Gerald MacLean, pp. 203–35, New York and London: Routledge, 1996.

Spivak, Gayatri Chakravorty, and Sarah Harasym, *The Post-Colonial Critic: Interviews, Strategies, Dialogues*, New York: Routledge, 1990. https://doi.org/10.4324/9780203760048.

Stănescu, Vasile, and Debs Stănescu, 'Lost in Translation: Temple Grandin, Humane Meat, and the Myth of Consent', in *Disability and Animality: Crip Perspectives in Critical Animal Studies*, ed. Stephanie Jenkins, Kelly Struthers Montford, and Chloë Taylor, pp. 161–81, London and New York: Routledge, 2020.

Stanescu, Vasile, 'How Industrial Slaughter Became the Blueprint for Modern Capitalism', *Current Affairs*, 6 October 2025, accessed 17 November 2025. https://www.currentaffairs.org/news/how-industrial-slaughter-became-the-blueprint-for-modern-capitalism.

Starhawk, *Spiral Dance: A Rebirth of the Ancient Religion of the Great Goddess*, San Francisco: Harper & Row, 1979.

Stella, Marco, and Karel Kleisner, 'Uexküllian Umwelt as Science and as Ideology: The Light and the Dark Side of a Concept', *Theoretical Biology*, vol. 129 (2010), pp. 39–51.

Stenning, Anna, *Narrating the Many Autisms: Identity, Agency, Mattering*, New York and Abingdon: Routledge, 2024.

Stenning, Anna, 'Introduction: Beyond the Neurological Subject', *Narrating the Many Autisms: Identity, Agency, Mattering*, New York and Abingdon: Routledge, 2024, pp. 1–17. https://doi.org/10.4324/9781003036807-1.

Stephens, Elizabeth M., and Annie M. Sprinkle, 'Ecosex Manifestos', University of California at Santa Cruz, n.d., accessed 12 March 2026. https://sprinklestephens.ucsc.edu/manifestos/.

Sterne, Jonathan, *Diminished Faculties: A Political Phenomenology of Impairment*, Durham and London: Duke University Press, 2021.

Stimpunks, 'About Us: A Feisty Group of Disabled People', *Stimpunks*, n.d., accessed 9 January 2026. https://stimpunks.org/about/.

Stimpunks, 'Autism', *Stimpunks*, n.d., accessed 29 January 2026. https://stimpunks.org/glossary/autism/.

Stimpunks, ‘Navigating Autism Acceptance Month and Autism Myths’, *Stimpunks*, n.d., accessed 29 January 2026. https://stimpunks.org/fieldguide/dei/navigating-autism-acceptance-month-and-autism-myths/.

Stolberg, Sheryl Gay, ‘Kennedy Says He Told C.D.C. to Change Website’s Language on Autism and Vaccines’, *The New York Times*, 21 November 2025, accessed 12 March 2026. https://www.nytimes.com/2025/11/21/us/politics/rfk-jr-cdc-vaccines-autism-website.html.

Straube, Wibke, ‘Toxic Bodies: Ticks, Trans Bodies, and the Ethics of Response-Ability in Art and Activist Writing’, *Environmental Humanities*, vol. 1, no. 1 (2019), pp. 216–38. https://doi.org/10.1215/22011919-7349510.

Strill, ‘Are You a Therian?’, *Project Shift*, 2008. https://web.archive.org/web/20130403025433/http://project-shift.org/are-you-a-therian/.

Studio III Atlass, ‘Damian Milton on Monotropism and Flow States’, video, *YouTube*, 18 October 2018, accessed 22 April 2025. https://www.youtube.com/watch?v=MUDQD1p2zFE.

Sukhareva, Grunya, ‘Die schizoiden Psychopathien im Kindesalter’, *Monatsschrift für Psychiatrie und Neurologie*, vol. 60, no. 3–4 (1926), pp. 235–47. https://doi.org/10.1159/000190478.

Takacs, David, *The Idea of Biodiversity: Philosophies of Paradise*, Baltimore: Johns Hopkins University Press, 1996.

Tarragnat, Ombre, ‘Les communautés du compost de Donna Haraway à l’ère du Pathocène’, in Denis Bertrand, Pauline Hachette et Everardo Reyes (eds.), *Existences collectives*, Fabula: Les Colloques, 2023. https://doi.org/10.58282/colloques.9949.

Tarragnat, Ombre, ‘“Le personnel est climatique”. Les corps-météo autistes et le posthumanisme féministe entre météorisation et (dés)acclimatation”, *Sextant*, vol. 41 (2024), pp. 157–69. https://doi.org/10.4000/131oe.

Tarragnat, Ombre, ‘Etologías cuir y las posibilidades más-que* de la animalidad’, *Tabula Rasa*, vol. 57 (2026). https://doi.org/10.25058/20112742.n57.08.

Tarragnat, Ombre, ‘La deuxième vague des études de la neurodiversité : penser le tournant critique à partir des représentations médiatiques’, *Genre en séries : cinéma, télévision, médias*, vol. 20, forthcoming.

Tarragnat, Ombre, ‘Queer Ethologies and the More-Than* Potentials of Animality’, in *Neuroqueer Theory and Practice*, ed. Nick Walker, Fort Worth: Autonomous Press, forthcoming.

Tarragnat, Ombre, and Riina Hannula, 'The Non-Innocent Politics of Neurology in Neurodiversity: Subverting the Neuro with a Posthumanist Approach', in *Biological Relationalism: The Relational Turn in Contemporary Science, Theory, and Politics*, ed. Aurore Franco-Ricord and Ombre Tarragnat, Cham: Springer, forthcoming.

Taylor, Emily C., Lucy A. Livingston, Mitchell J. Callan, Paul H.P. Hanel, and Punit Shah, 'Do Autistic Traits Predict Pro-Environmental Attitudes and Behaviors, and Climate Change Belief?', *Journal of Environmental Psychology*, vol. 76, art. 101648 (2021), pp. 1–49. https://doi.org/10.1016/j.jenvp.2021.101648.

Taylor, Sunaura, *Beasts of Burden: Animal and Disability Liberation*, New York and London: The New Press, 2017.

Taylor, Sunaura, 'The Service Dog', in *Beasts of Burden: Animal and Disability Liberation*, New York and London: The New Press, 2017, pp. 105–6.

Taylor, Sunaura, *Disabled Ecologies: Lessons from a Wounded Desert*, Oakland: University of California Press, 2024.

Taylor, Sunaura, and Sara E. S. Orning, 'Being Human, Being Animal: Species Membership in Extraordinary Times', *New Literary History*, vol. 51, no. 4 (2020), pp. 663–85. https://dx.doi.org/10.1353/nlh.2f020.0041.

Therian-Kin Corner, 'Definition', n.d., accessed 6 June 2025. http://theriankincorner.boards.net/page/Definition.

Thies, Christian, *Die Krise des Individuums: Zur Kritik der Moderne bei Adorno und Gehlen*, Reinbek bei Hamburg: Rowohlt, 1997.

Thinès, Georges, *Psychologie des animaux*, Bruxelles: Charles Dessart, 1966.

Thomas, Carol, 'Rescuing a Social Relational Understanding of Disability', *Scandinavian Journal of Disability Research*, vol. 6, no. 1 (2004), pp. 22–36.

Thompson, Mat, 'Against Neurodiversity: Problems with a Paradigm', *Neurodiversity*, forthcoming.

Thorpe, W. H., 'Appendix', in F. W. R. Brambell, 'Report of the Technical Committee to Enquire into the Welfare of Animals Kept Under Intensive Livestock Husbandry Systems', *Command*, vol. 2836 (1966), pages unknown.

Tinbergen, Elisabeth A., and Niko Tinbergen, *Early Childhood Autism: An Ethological Approach*, Berlin: Parey, 1972.

Tinbergen, Nikolaas, *The Study of Instinct*, Oxford: The Clarendon Press, 1951.

Tinbergen, Nikolaas, 'On Aims and Methods of Ethology', *Zeitschrift für Tierpsychologie*, vol. 20 (1963), pp. 410–33. https://doi.org/10.1111/j.1439-0310.1963.tb01161.x.

Tinbergen, Nikolaas, 'Functional Ethology and the Human Sciences', *Proceedings of the Royal Society of London B.*, vol. 182 (1972), pages unknown.

Tinbergen, Nikolaas, *The Animal in its World: Explorations of an Ethologist, 1932–1972,* Cambridge: Harvard University Press, 1973.

Tinbergen, Nikolaas, 'Ethology and Stress Diseases', Nobel lecture, 12 December 1973, accessed 23 November 2025. https://www.nobelprize.org/uploads/2018/06/tinbergen-lecture.pdf.

Tinbergen, Niko, and Elisabeth A. Tinbergen, *'Autistic' Children: New Hope for a Cure*, London: Allen & Unwin, 1983.

Tinbergen, Niko, and Elisabeth A. Tinbergen, *'Autistic' Children: New Hope for a Cure*, s.l.: Tinbergen Trust for Autistic Children, 1993.

Tønnessen, Morten, 'Umwelt Transitions: Uexküll and Environmental Change', *Biosemiotics*, vol. 2 (2009), pp. 47–64.

Tønnessen, Morten, *Umwelt Transition and Uexküllian Phenomenology: An Ecosemiotic Analysis of Norwegian Wolf Management*, Tartu: Tartu University Press, 2011.

Tønnessen, Morten, 'Umwelt Trajectories', *Semiotica*, vol. 198 (2014), pp. 159–80. https://doi.org/10.1515/sem-2013-0106.

Tordjman, Sylvie, Dominique Drapier, Olivier Bonnot, Rozenn Graignic, Sylvia Fortes, David Cohen, Bruno Millet, Claudine Laurent, and Pierre L. Roubertoux, 'Animal Models Relevant to Schizophrenia and Autism: Validity and Limitations', *Behavior Genetics*, vol. 37 (2007), pp. 61–78. https://doi.org/10.1007/s10519-006-9120-5.

Troisi, Alfonso, 'Ethological Research in Clinical Psychiatry: The Study of Nonverbal Behavior During Interviews', *Neuroscience & Biobehavioral Reviews*, vol. 23, no. 7 (1999), pp. 905–13. https://doi.org/10.1016/S0149-7634(99)00024-X.

Uexküll, Jakob von, *Bausteine zu einer biologischen Weltanschauung*. Munich: Bruckmann, 1913.

Uexküll, Jakob von, *Theoretische Biologie*, Berlin: Gebrüder Paetel, 1920.

Uexküll, Jakob von, 'Weltanschauung und Gewissen', *Deutsche Rundschau*, no. 197 (1923).

Uexküll, Jakob von, *Theoretical Biology*, London: Kegan Paul, Tench, Trubner, 1926.

Uexküll, Jakob von, *Theoretische Biologie: 2. gänzlich neu Bearbeitete Auflage*, Berlin: Springer, 1928.

Uexküll, Jakob von, *Staatsbiologie*, Hamburg: Hanseatische Verlagsanstalt, 1933.

Uexküll, Jakob von, *Niegeschaute Welten: Die Umwelten meiner Freunde*, Berlin: S. Fischer, 1936.

Uexküll, Jakob von, *A Foray into the Worlds of Animals and Humans: With A Theory of Meaning*, Minneapolis and London: University of Minnesota Press, 2010.

Vallortigara, Giorgio, Allan Snyder, Gisella Kaplan, Patrick Bateson, Nicola S. Clayton, and Lesley J. Rogers 'Are Animals Autistic Savants?', *Public Library of Science Biology*, vol. 6, no. 2 (2008). https://doi.org/10.1371/journal.pbio.0060042.

van der Palen, Teunie, *A Cyborg Autobiography: Autism & the Posthuman*, MA Comparative Literary Studies, Utrecht University, 2014.

van Dooren, Thom, and Deborah Bird Rose, 'Lively Ethography: Storying Animist Worlds', *Environmental Humanities*, vol. 8, no. 1 (2016), pp. 77–94. https://doi.org/10.1215/22011919-3527731.

Varela Trejo, David, and Berenice Vargas García, 'A(u)nimals: Conversations About Autism, Animality, & Veganism from the South', Cultural Autism Studies at Yale, 21 February 2024, *YouTube*, published 1 May 2024, accessed 25 October 2025. https://www.youtube.com/watch?v=mziZE8rNPH4.

Varela Trejo, David, and Berenice Vargas García, 'Multispecies Justice, Environmental Crisis, and Affectivity', Cultural Autism Studies at Yale, 30 August 2024, *YouTube*, published 24 September 2025, accessed 25 October 2025. https://www.youtube.com/watch?v=zot7EZ_VuYc.

Vargas García, Berenice, 'Hacia una crí(p)tica de la razón autista: especismo-capacitismo (y resistencia animalista)', *Tabula Rasa*, vol. 51 (2024), pp. 239–56. https://doi.org/10.25058/20112742.n51.10.

Vargas García, Berenice, Grecia Guzmán Martínez, and Diana Vite Hernández, 'Discapacidad, neurodisidencia y locura: perspectivas críticas y situadas', *Tabula Rasa*, n.d., accessed 25 October 2025. https://www.revistatabularasa.org/convocatorias/numero-tematico-57-enero-marzo-2026/.

The Vegan Society, 'Definition of Veganism', n.d., accessed 21 October 2025. https://www.vegansociety.com/go-vegan/definition-veganism.

Verhoef, Berend, 'Kurt Goldstein on Autism: Exploring a Person-Centered Style of Psychiatric Thought', *History and Philosophy of the Life Sciences*, vol. 38 (2016), pp. 117–37. https://doi.org/10.1007/s40656-016-0099-9.

Vicedo, Marga, 'The "Disadapted" Animal: Niko Tinbergen on Human Nature and the Human Predicament', *Journal of the History of Biology*, vol. 51 (2018), pp. 191–221. https://doi.org/10.1007/s10739-017-9485-8.

Vicedo, Marga, 'Ethopathology and Civilization Diseases: Niko and Elisabeth Tinbergen on Autism', *Canadian Bulletin of Medical History*, vol. 35, no. 1 (2018), pp. 1–31. https://doi.org/10.3138/cbmh.191-122016.

Vidal, Fernando, and Francisco Ortega, *Being Brains: Making the Cerebral Subject*, New York: Fordham University Press, 2017.

Voight, Denise, ‘Leaky Gut and How it Affects Health and Autism Symptoms’, *Autism Parenting Magazine*, 8 May 2025, accessed 23 January 2026. https://www.autismparentingmagazine.com/leaky-gut-autism-symptoms/.

Wagner, Lorenz, *The Boy Who Felt Too Much: How a Renowned Neuroscientist and His Son Changed Our View of Autism Forever*, New York: Arcade, 2021.

Walker, Nick, *Transformative Somatic Practices and Autistic Potentials: An Autoethnographic Exploration*, PhD thesis, California Institute of Integral Studies, 2019.

Walker, Nick, *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, Fort Worth: Autonomous Press, 2021.

Walker, Nick, ‘Reflections on Neurocosmopolitanism’, in *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, Fort Worth: Autonomous Press, 2021, pp. 72–9.

Walker, Nick, ‘What Is Autism?’ In *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, Fort Worth: Autonomous Press, 2021, pp. 85–7.

Walker, Nick, ‘The Use of Transformative Somatic Practices in Processes of Collective Imagination and Collaborative Future-Shaping’, in *Routledge Handbook for Creative Futures*, ed. Gabrielle Donnelly and Alfonso Montuori, pp. 317–24, London and New York: Routledge, 2022.

Walker, Nick, ‘What Is Autism?’, *Neuroqueer*, n.d., accessed 29 January 2026. https://neuroqueer.com/what-is-autism/.

Walker, Nick, and Dora M. Raymaker, ‘Toward a Neuroqueer Future: An Interview with Nick Walker’, *Autism in Adulthood*, vol. 3 no. 1 (2021), pp. 5–10. https://doi.org/10.1089/aut.2020.29014.njw.

Warrier, Varun, David M. Greenberg, Elizabeth Weir, Clara Buckingham, Paula Smith, Meng-Chuan Lai, Carrie Allison, and Simon Baron-Cohen, ‘Elevated Rates of Autism, Other Neurodevelopmental and Psychiatric Diagnoses, and Autistic Traits in Transgender and Gender-Diverse Individuals’, *Nature Communications*, vol. 11, no. 3959 (2020). https://doi.org/10.1038/s41467-020-17794-1.

Warzone Distro, ‘Veganism as Anticolonial Praxis: A Collection of Indigenous Vegan Perspectives’, 2023, accessed 12 March 2026. https://warzonedistro.noblogs.org/files/2023/07/Veganism-as-Anti-Colonial-Praxis_A-Collection-of-Indigenous-Vegan-Perspectives.pdf.

Watson, John, *Behaviorism*, New York: People’s Institute, 1924.

Weisberg, Zipporah, ‘The Broken Promises of Monsters: Haraway, Animals and the Humanist Legacy’, *Journal for Critical Animal Studies*, vol. 7, no. 2 (2009), pp. 22–62.

Weizsäcker, Victor von, *Der Gestaltkreis. Theorie der Einheit von Wahrnehmen und Bewegen*, Leipzig: Thieme Verlag, 1940.

Whitehead, Patrick M., 'Overcoming Parallelism: Naturalizing Phenomenology with Goldstein and Merleau-Ponty', *Progress in Biophysics and Molecular Biology*, vol. 119, no. 3 (2015), pp. 502–9.

Whitehead, Patrick M., *Psychologizing: A Personal, Practice-Based Approach to Psychology*, Lanham and London: Rowman & Littlefield, 2016.

Whitehead, Patrick M., *Expanding the Category "Human": Nonhumanism, Posthumanism, and Humanistic Psychology*, Lanham and London: Rowman & Littlefield, 2017.

Whitehead, Patrick M., *Existential Health Psychology: The Blind-Spot in Healthcare*, Cham: Springer, 2019.

Whitehead, Patrick M., 'Kurt Goldstein's Critique of Leo Kanner: Understanding Autism as an Impairment of the Abstract Attitude', *Early Child Development and Care*, vol. 192, no. 1 (2022), pp. 136–43.

Wilson, Elizabeth, *Neural Geographies: Feminism and the Microstructure of Cognition*, New York and London: Routledge, 1998.

Wilson, Elizabeth A., *Psychosomatic: Feminism and the Neurological Body*, Durham and London: Duke University Press, 2004.

Wilson, Elizabeth A., *Gut Feminism*, Durham and London: Duke University Press, 2015.

Wing, Lorna, 'Asperger's Syndrome: A Clinical Account', *Psychological medicine*, vol. 11, no. 1 (1981), pp. 115–29. https://doi.org/10.1017/s0033291700053332.

Wing, Lorna, and Derek M. Ricks, 'The Aetiology of Childhood Autism: A Criticism of the Tinbergens' Ethological Theory', *Psychological Medicine*, vol. 6, no. 4 (1976), pp. 533–54. https://doi.org/10.1017/s0033291700018158.

Winthrop-Young, Geoffrey, 'Afterword', in Jakob von Uexküll: *A Foray into the Worlds of Animals and Humans: With a Theory of Meaning*, Minneapolis and London: University of Minnesota Press, 2010, pp. 209–43.

Wolfe, Cary, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory*, Chicago and London: University of Chicago Press, 2003.

Wolfe, Cary, *What is Posthumanism?* Minneapolis and London: University of Minnesota Press, 2010.

Wolfe, Cary, 'Learning from Temple Grandin', *What is Posthumanism?* Minneapolis and London: University of Minnesota Press, 2010, pp. 127–42.

Wolfe, Cary, 'Humane Advocacy and the Humanities: The Very Idea', in *Species Matters: Humane Advocacy and Cultural Theory*, ed. Marianne DeKoven and Michael Lundblad, pp. 27–48, New York: Columbia University Press, 2012.

Woods, Richard, Damian Milton, Larry Arnold, and Steve Graby, 'Redefining Critical Autism Studies: A More Inclusive Interpretation', *Disability & Society*, vol. 33, no. 6 (2018), pp. 974–9. https://doi.org/10.1080/09687599.2018.1454380.

Wynter, Sylvia, 'Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Over-Representation. An Argument', *The New Centennial Review*, vol. 3, no. 3 (2003), pp. 257–337.

Yergeau, M. Remi, 'Clinically Significant Disturbance: On Theorists Who Theorize Theory of Mind', *Disability Studies Quarterly*, vol. 33, no. 4 (2013). https://doi.org/10.18061/dsq.v33i4.3876.

Yergeau, M. Remi, *Authoring Autism: On Rhetoric and Neurological Queerness*, Durham and London: Duke University Press, 2018.

Yin, Jiana, and Christian P. Schaaf, 'Autism Genetics – An Overview', *Prenatal Diagnosis*, vol. 37, no. 1 (2017), pp. 14–30. https://doi.org/10.1002/pd.4942.

Yusoff, Kathryn, *A Billion Black Anthropocenes or None*, Minneapolis and London: University of Minnesota Press, 2018.

Zahavi, Amotz, 'Mate Selection – A Selection for a Handicap', *Journal of Theoretical Biology*, vol. 53 (1975), pp. 205–14.

Zamir, Tzachi, 'The Moral Basis of Animal-Assisted Therapy', *Society and Animals*, vol. 14, no. 2 (2006), pp. 179–99. https://doi.org/10.1163/156853006776778770.

Žukauskaitė, Audronė, *Organism-Oriented-Ontology*, Edinburgh: Edinburgh University Press, 2023.

APPENDIX 1: GLOSSARY

Animalisation: The positive, negative, or value-neutral attachment of animality to an individual or population, whether human or nonhuman.

A(û)nimal: 1. '[A] subtle intervention [which seeks] to cripple and distort' animal activism and one's 'own animality, [which is] also traversed by speciesist violence'.[1666] In other words, the introduction of an autistic and neurodiversity-affirmative perspective into animality studies and animal activism. 2. Types of coalitions and kinship between autistic humans and nonhuman animals. 3. The animal quality of autistic animals, whether human or nonhuman.

Bestialisation: The negative animalisation of human or nonhuman individuals or populations who do not conform to neurotypical standards via the use of biopolitical apparatuses, both rhetorical and material, which operate at the intersection of (among others) racism, speciesism, and neuronormativity.

De-animalisation: The symbolic stripping of an individual or population's animality – understood in positive or value-neutral terms – as the result of biopolitical apparatuses and technological, both rhetorical and material, often through mechanisation and de-individualisation.

Dehumanisation: The symbolic stripping of an individual or population's humanity as the result of biopolitical apparatuses and technologies, both rhetorical and material, often through animalisation or mechanisation.

Disanimality: 'A disruptive affect, a feeling of discomfort, a site for critique, but also an opportunity for critical disability, animality, and human-animal studies to come together in more productive way', [1667] and 'the disruptive and perhaps uncomfortable juxtaposition of disability and animality'.[1668]

Dishuman: 1. A period in time or a framework in which 'thinking about the human […] *always* involve[s] thinking about disability'.[1669] 2. The (often invisibilised) mobilisation of disability in conceptions of humanity.

[1666] Vargas García, email to author, 9 December 2025, my translation.
[1667] Lundblad, 'Disanimality', p. 766.
[1668] *Ibid*., p. 768.
[1669] Goodley and Runswick-Cole, 'Becoming Dishuman', p. 13.

Dis/ability: 1. The necessary coexistence of ability and inability in (hum)animal life. 2. An ambivalent affect of fascination and discomfort for disability in dishuman modernity.

Dis/harmony: 1. The necessary coexistence of harmony and disharmony in human life and nature at large. 2. An ambivalent affect of fascination for, and discomfort with, disharmony in Western dishuman modernity.

Dis/order: 1. The necessary coexistence of harmony and disharmony in human life and nature at large. 2. An ambivalent affect of fascination and discomfort for disorder in dishuman modernity.

Epiphany: 1. '[A] revelation of a possible and desirable existential dimension whenever a […] being encounters an […] otherness and its different life condition'.[1670] 2. The (often bittersweet) realisation that one's experience (for example, of feeling out of place) or that an object or product (for example, meat) is the result of a given social dynamic (such as oppression).

Ethology: 1. The science of behaviour in animals, human and nonhuman. 2. A mode of being in the world, a beharioural or existential style characteristic of an individual, community, or species.

Ethodiversity: Ethodiversity, short for ethological diversity, refers to the intra- and interspecific variabilities and differences in behavioural or existential styles in (human and nonhuman) animals. Ethodiversity encompasses biological (including traditional ethological) needs, behavioural patterns, existential orientations, affects, as well as inter- and intraspecific relationality. Inspired by biodiversity science, the concept is rearticulated and expanded in the context of more-than-human neurodiversity studies using a philosophical and critical ethological approach.

Ethodivergence: Ways of being and behaving that depart from the behavioural patterns (1) dominant in one's species, (2) in one's ecological and social milieu, and/or (3) imposed by ethonormativity.

Ethodivergent: The quality of a (hum)animal (perceived as) behaving in species-atypical, milieu-atypical, and non- ethonormative fashion.

Ethodivergent solidarity: 1. A practice of solidarity, coalition-building, and allyship rooted in the shared experience of ethonormativity. 2. A queer, anti-identitarian and antiessentialist way of conceiving the relationship between neurodivergent humans and animals.

[1670] Marchesini, *Over the Human*, p. 150.

Ethonormativity: The normative framework, rooted in humanist-speciesist principles, that defines and regulates what normal behaviour looks like in given (hum)animal groups, species, and environments.

Ethonormative violence: A form of political violence targeted at ethodivergent individuals or communities due to their ethodivergence.

Ethotypical: The quality of a (hum)animal (perceived as) behaving in species-typical, milieu-typical, and ethonormative fashion.

Ethotypicalism: An ideology that privileges a form of life characteristic of people who behave in a way deemed typical or normal for their species.

Humanimal/Humanimality: 1. The animality of human beings and/or the (quasi-)humanity of anthropomorphised animals. 2. The hybrid status of a being who is at once human and animal.

Humanism/humanist: 1. A philosophical, scientific, moral, and political movement which emerged in Europe in the early stages of modernity-coloniality, which embraces the centrality and exceptionality of (white, bourgeois, cisgender, heterosexual, able-bodied and able-minded, neurotypical, sane, adult) Man and his devaluation and exploitation of all who are not like him: the animal(isable), queer, neurodivergent, transgender, 'negatively racialised, feminised, dissident, deviant, crippled, sick, Mad, impoverished, infantilised and so on'.[1671] 2. A quality of the modern-colonial and capitalist order that emerged from the Enlightenment movement, with its affirmative (freedoms, individual rights, emancipation, reason, progress, universalism) and their negative (authoritarianism, domination, appropriation, exploitation, Anthropocene, etc.) ideals.

Neurocentrism: The emphasis on the brain (or nervous systems, neurocognitive functioning, neurology, or the neurological scale) in a given field, movement, or theory.

Neurodivergent veganism: The uniquely neurodivergent ways of practising veganism and of bringing antispeciesism together with neurodissidence. For example, autistic veganism may be characterised by black-and-white thinking in relation to moral guidelines and political horizons.

Neurodivergent speciesism: An approach that uses neurodivergent experiences to naturalise and justify the oppression of nonhuman animals.

[1671] Vargas García, 'Hacia una crí(p)tica de la razón autista', p. 241.

Neurodiversity: Neurodiversity refers to the diversity of (hum)animal bodyminds, the infinite variation in neurocognitive functioning within and between (hum)animal species.[1672]

Neurodiversity lite: Rhetorical practices of assimilation and neutralisation of the neurodiversity lexicon (and of its critical and subversive potentials) by mainstream actors in psychological, economic, or institutional spheres. Neurodiversity lite functions by claiming to embrace the neurodiversity paradigm without concretely committing to a break from the pathology paradigm.

Neuroessentialism: The idea that the brain, the nervous system, or neurocognitive functioning innately determines the destiny of an individual, and/or the idea that the unique nature of an individual or community can be found it its neurology.

Neurofeminism: A set of feminist approaches developed outside neurodiversity studies, according to which feminism should engage with neurology in novel, more nuanced ways, instead of rejecting it unilaterally on the grounds of anti-essentialism.

Neuroholography: 1. '[A] framework for a relational way of being, including an investment or entrainment with the environment, animals, or so-called inanimate objects'.[1673] 2. An autistic (or broadly, neurodivergent) tendency to perceive the world in a holographic manner.

Neuro-identitarianism: The idea that the identity of an individual and/or the foundation of community can be found in its neurology and particularly its neurotype.

Neurokinship: A positive bond developed between people who share the same neurotype.

Neuroqueer: 1. A theory by, for, and about people who are both neurodivergent and queer. 2. A theory that evidences the imbrication of cisheteronormativity and neuronormativity. 3. A set of practices and a movement that resist these imbricated oppressions. 4. A theory that attempts to queer (i.e. subvert) neurocentrism.

Neuroreductionism: The idea that a phenomenon (e.g. autism or neurodivergence) can be reduced to the neurological scale, and/or that neurology can be reduced to mechanistic and brain-centred perspectives.

Non-Innocence: The recognition, inspired by Donna Haraway, that most philosophical, scientific, ethical, and political discourse in the West traffics in religious tropes of sin and

[1672] This is a tentative redefinition inspired by Nick Walker.
[1673] Prince-Hughes, CASY Cultural Autism Studies at Yale, *Facebook*, 20 February 2025.

innocence inherited by Christian theology, and the refusal to perpetrate such tropes. In ethics and politics: the rejection of universal principles and purity politics.

Parasitic reading: 1. A reading which (silently) takes elements from a theory and puts them to use in different contexts in ways that are not necessarily aligned with said theory or that even directly contradict the main goals and principles of its author. 2. A deconstructive methodology for reading texts which reveals their constitutive repression of elements which come back to haunt them, treated as parasites. 3. A critical reading that attempts to subvert potentially problematic texts by claiming the position of its constitutive other, such as the parasite.

Pathology lite: Past or present discourse seeking to transform the pathology paradigm from within the bio-psycho-medical sciences without explicitly adopting a neurodiversity approach. Pathology lite discourse targets the core principles of the neurodiversity paradigm by maintaining the illusion that the pathology paradigm can be transformed to humanise and accommodate neurodivergent individuals.

Philosophical anthropology: 1. A philosophical approach that seeks to describe and establish the unique position of the human in the natural world. 2. A neohumanist approach which reinforces the idea of anthropozoological difference.

Philosophical biology: 1. A philosophical approach that seeks to describe and establish the unique position of living beings in the natural world. 2. An approach which suggests that functions animating the most recent or complex forms of life already exist in embryonic form in the most primary or simple forms of life.

Philosophical ethology: 1. A philosophical approach that seeks to describe and establish the unique position of animals in the natural world. 2. A posthumanist approach that reinscribes humans in the realm of animality, evidences the debt of humans to other animals, and reclaims the animality of humans, or ‘humanimality’.

Posthumanism: A theorical and political approach, movement, and field of research which opposes anthropocentrism, human exceptionalism, Western dualisms (e.g. human/animal, nature/culture, biology/technology, man/woman, etc.), and/or speciesism.

Post/humanism: 1. A phrase that allows us to interrogate the tensions of philosophical genealogies by making visible the space that separates (but also connects) humanism and posthumanism. 2. The quality of texts or theories which seemingly contain both humanist and posthumanist components; the uncritical reinscription of humanist ideology into posthuman(ist)

forms' and vice versa.[1674] 3. A methodology for continually interrogating and deconstructing humanism.

Queersomatic practices: 1. The counter-normative ways of being and behaving performed by (hum)animal subjects. 2. The building blocks of queer ethologies.

Speciation: 1. In positivist terms, the evolutionary constitution of species through natural and sexual selection. 2. In critical terms, the biopolitical constitution of species through rhetorical and material technologies and their positioning as a foundation for speciesism.

Species: 1. In positivist terms, a category of living beings who (according to a common definition) can reproduce together and birth viable offspring. A species is often defined by a set of standardised, expected behaviours. 2. In critical terms, the biopolitical constitution of populations of living beings sharing given (biological and behavioural) traits or predicates.

Speciesism: 1. The idea that belonging to a given species (especially when other-than-human or not *properly* human) justifies mistreatment. 2. The oppression and/or exploitation of living beings (particularly the animal(isable)) based on their alleged belonging to a given species.

Species-specific / Species specificity: 1. The idea that given traits or predicates can be uniquely attached to a given species. 2. The scientific concept behind human exceptionalism.

Species-typical / Species typicality: 1. The idea that statistically common traits or predicates in a given species constitute a scientific, moral, and/or political norm and the conditions for a good life. 2. The scientific concept behind neurotypicality.

Strategic humanism: The idea that humanist concepts or practices may be productively employed to achieve strategic goals, without believing in their full justification and/or while seeking to overcome them in the long term.

Therianthropy: 1. A somatic practice, and an existential orientation towards animality. 2. '[T]he cultural product [of zoomimesis:] a hybridization between humans and animals'.[1675] 3. A subcultural movement that engages in transspecies dis/identification and ethodivergence.

Transspecies (neuro)kinship: 1. The idea that community, solidarity, or allyship between animals of different species is (or should be) founded upon bio-behavioural similarities, often

[1674] Herbrechter, *Posthumanism*, p. 60.
[1675] Marchesini, cited in Bussolini, Chrulew, and Buchanan, 'Entering Theriomorphic Worlds', p. 268.

of neurological nature, such as a shared neurotype. 2. An identitarian and partly essentialised way of conceiving the relationship between neurodivergent humans and animals.

Trouble/Troubling: 1. A negative situation (for example, ecological, political, psychological, existential) which imperils equilibrium or survival and calls for new solutions. 2. A subversive, queer-like gesture which consists of disrupting a hegemonic (mental, ethical, social, political) order, attitude, or status quo.

APPENDIX 2: RÉSUMÉ SUBSTANTIEL EN FRANÇAIS

TABLE DES MATIÈRES

Remerciements
Résumé et mots clés (anglais et français)

Introduction générale
L'autisme : entre études critiques du handicap, études critiques de la neurodiversité et études critiques de l'autisme
L'animalité : entre études animales critiques, études de l'animalité et posthumanisme
Arguments principaux
Réflexions sur la discipline philosophique et la méthode

Partie I – Modernité dishumaine : lectures parasitaires de l'autisme à travers les philosophies post/humanistes

Introduction : L'autisme comme figure de la modernité dishumaine
Philosophies post/humanistes
La dis/capacité et la modernité dishumaine
Lectures parasitaires

Chapitre 1 – De la tique à l'autistique : la théorie de l'Umwelt de Jakob von Uexküll
Introduction
I – La théorie de l'Umwelt et sa réception
1. Introduction à la théorie de l'Umwelt de Jakob von Uexküll
2. Lectures parasitaires d'Uexküll dans les philosophies française et allemande du XXe siècle
3. Généalogies de la théorie de l'Umwelt comme proto-posthumanisme et biologie politique conservatrice

II – Lectures parasitaires de la théorie de l'Umwelt, de la tique à l'autistique
1. Lectures parasitaires : une méthodologie posthumaniste à partir de Michel Serres
2. Revendiquer le parasitisme autis/tique
3. Une incursion dans les bulles des autistes : la phénoménologie de l'être-au-monde de la théorie de l'Umwelt à la théorie du monde intense
   a. Les bulles autistiques comme paradigmes de la déconnexion animale dans la théorie de l'Umwelt
   b. Les bulles autistiques comme réaction pathologique dans la théorie du monde intense

Conclusion

Chapitre 2 – Du malade à l'autiste : la théorie de l'organisme de Kurt Goldstein

Introduction

I – La théorie de l'organisme et sa réception

1. Introduction à la théorie de l'organisme de Kurt Goldstein
2. Lectures parasitaires de Goldstein dans la philosophie française du XXe siècle
3. Généaologies de la théorie de l'organisme comme (néo)humanisme, non-humanisme et posthumanisme

II – Lectures parasitaires de la théorie de l'organisme, du malade à l'autiste

1. Généalogies du handicap, de la neurodiversité et de la pathologie lite dans la théorie de l'organisme
   a. Goldstein et le handicap
   b. Goldstein et la neurodiversité
2. Lectures parasitaires et dés/ordonnées de l'autisme chez Goldstein
   a. L'autisme et l'attitude abstraite
   b. Le trouble du dés/ordre autiste et la symbiose parasitaire

Conclusion

Chapitre 3 – Du faible à l'autiste : la théorie du *Mängelwesen* d'Arnold Gehlen

Introduction

I – La théorie du *Mängelwesen* et sa réception

1. Introduction à la théorie du *Mängelwesen* d'Arnold Gehlen
   a. Une théorie anthropologique
   b. Une théorie de l'action
   c. Une théorie des institutions
2. Lectures parasitaires de Gehlen dans les philosophies française et allemande du XXe siècle
3. Généalogies de la théorie du *Mängelwesen* comme néo-, post-, trans- et anti-humanisme

II – Lectures parasitaires de la théorie du *Mängelwesen*, du faible à l'autistique

1. La dishumanité et la disanimalité dans la théorie du *Mängelwesen* et la théorie du handicap
   a. Le *Mängelwesen* comme sujet dishumain
   b. La théorie du handicap comme une forme de disanimalité
2. Le *Mängelwesen* autistique : le délestage comme réponse dés/ordonnée à la surstimulation sensorielle

Conclusion

Partie II – Vers un tournant plus-qu'humain et plus-que-neurologique dans les études de la neurodiversité

Introduction : l'animalité comme autre constitutif de la neurodiversité

Généalogies de l'animalité dans les études la neurodiversité

La co-construction du spécisme et de la neuronormativité

Semer le trouble dans le tournant plus-qu'humain : vers une critique antispéciste-posthumaniste

Chapitre 4 – Vers un tournant plus-qu'humain dans les études de la neurodiversité

Introduction

I – Troubles plus-qu'humains dans les études de la neurodiversité

1. De la biodiversité à la neurodiversité : l'écologie, l'anthropocentrisme, et l'exclusion des animaux·ales non humain·es
   a. La neurodiversité comme biodiversité sans animaux·ales non humain·es
   b. La neurodiversité comme instrument pour la conservation de la biodiversité
2. Les humains·es autistes et les animaux·ales non humain·es : le spécisme neurodivergent et le véganisme neurodivergent
   a. Les femmes autistes et les animaux·ales non humain·es : les mémoires de Temple Grandin et Dawn Prince-Hughes
   b. De l'affinité naturelle pour les animaux·ales à l'éthique de la non-innocence
   c. Le véganisme neurodivergent et le trouble de l'humanisme
3. La disanimalité et l'a(û)nimalité : une cartographie de l'intersection entre études du handicap, études de la neurodiversité et études animales critiques
   a. La disanimalité, ou le trouble animal dans les études du handicap
   b. L'a(û)nimalité, une approche autiste de l'animalité en contexte (post)colonial

II – Semer le trouble dans le tournant plus-qu'humain : la neurodiversité comme espace de critique antispéciste-posthumaniste

1. Nous n'avons jamais été humain·es : technologies de spéciation, dispositifs de bestialisation
   a. La déshumanisation et l'animalisation
   b. Bêtes, bêtise et bestialisation
2. La neurodiversité comme trouble dans l'espèce : une généalogie critique de la neurotypie
   a. La neurodiversité comme trouble dans l'espèce : une généalogie critique de la neurotypie
   b. La neurodiversité comme critique antispéciste-posthumaniste
3. La neurodiversité n'est pas (seulement) un humanisme : réflexions sur la stratégie politique
   a. L'humanisme neurodivergent à l'ère néolibérale

b. Semer le trouble dans l'humanisme en période de résurgence néofasciste

Conclusion

Chapitre 5 – Vers un tournant plus-que-neurologique dans les études de la neurodiversité

Introduction

I – Le trouble neurologique dans la neurodiversité

1. De la neurologie à la neurodiversité : le neuroréductionnisme comme dispositif de bestialisation
   a. La neurologie comme fondement de la neurodiversité
   b. Le neuroréductionnisme comme bestialisation
2. Les savoirs situés et la question de la science dans l'autisme : métaphores plus-qu'humaines de la neurologie autiste dans la théorie du monotropisme
   a. La théorie du monotropisme comme savoir situé de l'autisme
   b. La non-innocence et les métaphores plus-qu'humaines de la neurocognition autiste
   c. La bestialisation de la neurologie monotropique : l'héritage de la biologie mécaniciste
   d. Conclusion : vers la respons(h)abilité épistémique dans les savoirs situés autistes
3. Les politiques neurodivergentes de la neurologie et la tentation de l'innocence
   a. Le tournant neurologique et les neurocultures de la neurodiversité
   b. Les politiques du neuro-identitarisme et du neuroessentialisme

II – Semer le trouble dans le « neuro » dans les études de la neurodiversité : la théorie neuroqueer, le neuroféminisme et le posthumanisme

1. La théorie neuroqueer et la subversion du neurocentrisme
   a. Neuroqueeriser comme queeriser le « neuro »
   b. L'anthropocentrisme et le trouble de la neurologie
   c. Vers un tournant plus-que-neurologique dans la théorie neuroqueer : la psychologie post-humaniste
2. Apprendre du féminisme : reconsidérer la neurobiologie de l'autisme
   a. Le neuroféminisme et les limites de l'anti-essentialisme
   b. Vers des théories neurodivergentes de la neurologie autiste
3. Approches posthumanistes et néomatérialistes de la neurologie
   a. La neuroplasticité de l'individualisme néolibéral à la corégulation plus-qu'humaine
   b. La pensée neuro-holographique et le holotropisme : des approches néomatérialistes de la neurodivergence ?

Conclusion : (en) finir avec le neurocentrisme

Chapitre 6 – Les éthologies de l'autisme : un cadre de pensée antispéciste-posthumaniste pour la neurodiversité

Introduction

I – L'autisme et l'animalité dans les sciences comportementales

1. La co-construction de l'autisme et de l'animalité dans le behaviorisme : les modèles animaux comme dispositifs de bestialisation
   a. Introduction : l'analyse appliquée du comportement et la bestialisation
   b. La co-construction de l'autisme et de l'animalité dans la science de l'autisme : introduction aux modèles animaux
   c. L'onto-épistémologie des modèles animaux : la pathologisation, le réductionnisme et l'analogisme
   d. Un autisme non subjectif : le behaviorisme et la bestialisation des modèles animaux
2. De l'éthologie animale à l'éthologie humaine : la théorie éthologique de l'autisme comme technologie de spéciation
   a. Introduction à la théorie éthologique de l'autisme de Nikolaas et Elisabeth Tinbergen
   b. Une lecture parasitaire de la théorie éthologique de l'autisme
3. L'autisme animal dans le mouvement de la neurodiversité et la psychaitrie animale
   a. Tou·te·s les chat·tes sont-iels autistes ?
   b. L'*autism-like* et le HsHa dans la psychiatrie animale

II – Se réapproprier le comportement, queeriser l'éthologie : vers l'éthodiversité

1. L'éthodiversité : un cadre de pensée plus-qu'humain et plus-que-neurologique pour la neurodiversité
   a. Introduction : de l'éthologie scientifique à l'éthologie philosophique
   b. L'éthodiversité, l'éthodivergence et les politiques de l'éthos
   c. L'éthonormativité et l'ambivalence de l'éthodivergence
   d. L'écologie et la biopolitique de la diversité éthologique
2. Les éthologies queer et les pratiques queersomatiques : queeriser l'espèce et la somaticité
   a. Introduction aux éthologies queer et aux pratiques queersomatiques
   b. Le stim autiste comme pratique queersomatique
3. Conspirations a(û)nimales : de la (neuro)parenté transespèce à la solidarité éthodivergente
   a. Faire de la philosophie avec les animaux·ales modèles : note sur le positionnement et la méthode
   b. L'autisouris_rencontre_l'humain·e_autiste@la_science_de _l'autisme
   c. De la (neuro)parenté transespèce à la solidarité éthodivergente
4. Devenir autiste, devenir animal, dédevenir humain·e : l'épiphanie et la thérianthropie a(û)nimales
   a. L'épiphanie a(û)nimale : vers des conspirations a(û)nimales
   b. La thérianthropie a(û)nimale : vers une résistance coalitionnelle à l'éthonormativité

Conclusion

Conclusion générale

INTRODUCTION GÉNÉRALE

Une nuit, un jeune garçon autiste découvre que le chien de la voisine a été brutalement assassiné, transpercé par une fourche de jardin. Alors qu'il embrasse le corps sans vie de l'animal, il est repéré par la voisine, qui alerte les autorités. L'enfant, qui portera seul le deuil de l'animal tout au long du récit, est accusé à tort d'un meurtre qu'il n'a pas commis. S'ensuit une investigation méthodique pour identifier l'auteur du crime, dont le jeune Christopher fait la chronique dans un livre atypique. Tel est le synopsis d'un ouvrage qui a marqué ma jeunesse d'enfant autiste non diagnostiqué·e et antispéciste en devenir[1676]. Il serait certainement excessif de suggérer que cet ouvrage m'a conduit·e à la découverte de mon autisme ou à mon engagement en faveur des animaux·ales non humain·es. Pour tout dire, j'étais à l'époque passé·e à côté de l'autisme de Christopher – qui n'est pas mentionné ouvertement dans le roman – et, même si le souvenir m'en échappe aujourd'hui, il est probable que ma phobie des chiens m'ait alors laissé·e indifférent·e au sort de Wellington. Bien des années plus tard, quelle ne fut pourtant pas ma surprise lorsque, entamant une recherche philosophique sur l'autisme et l'animalité, je retombai sur un roman qui faisait se rencontrer deux des préoccupations centrales de ma vie d'adulte et de mon travail universitaire.

Plus curieusement encore, le roman présente des traits qui font écho aux arguments développés dans cette thèse. Selon les chercheur·euses en études du handicap David T. Mitchell et Sharon L. Snyder, par exemple, « les identifications trans-espèces de Christopher sont la source d'un *trouble dans l'espèce* » [1677] : l'attrait atypique de l'enfant pour cet animal mort se voit alors assimilé aux « comportements non-normatifs »[1678] qu'il présente en raison de son autisme. Seul à se soucier de la mort de l'animal, le jeune garçon incarnerait ainsi une attitude tout autiste de « non-spécisme »[1679], un rapport aux animaux·ales non humain·es en rupture avec les normes humaines et humanistes. Mais que faut-il entendre par là ? Par quelles logiques l'attrait d'un sujet autiste pour les animaux en vient-il à remettre en question sa propre humanité ? Quels idéaux humains (et peut-être même *humanistes*) sont à l'œuvre dans ce croisement, à la fois imposé et potentiellement revendicable, entre l'autisme et l'animalité ?

[1676] Mark Haddon, *Le bizarre incident du chien pendant la nuit*, Paris : Pocket Jeunesse, 2005.
[1677] David T. Mitchell et Sharon L. Snyder, « Precarity and Cross-Species Identification: Autism, the Critique of Normative Cognition, and Nonspeciesism », in *Disability Studies and the Environmental Humanities: Toward an Eco-Crip Theory*, ed. Sarah Jaquette Ray et Jay Sibara, Lincoln et Londres : University of Nebraska Press, 2017, p. 556.
[1678] *Ibid*.
[1679] *Ibid*., p. 564.

Avant d'en venir aux thèses défendues dans cette étude philosophique sur l'autisme et l'animalité, il nous faut revenir sur les termes clés qui en forment le titre.

Que signifie ce titre ? En tant que projet de recherche portant sur « l'autisme et l'animalité », il ne s'agit pas là d'une thèse sur « l'autiste » et « l'animal », compris comme les deux personnages qui apparaissent dans le roman de Mark Haddon. Il ne s'agit pas non plus de deux positions subjectives hypothétiques, « autiste » et « animal », ni même de deux identités. Il s'agit plutôt de proposer une étude sur deux noms, deux substantifs, dont la nature reste à élucider. L'un est un -isme, mais ce n'est pas une idéologie ; le terme fait plutôt référence à une condition ou à une qualité propre à des êtres donnés : les personnes autistes. L'autre aurait pu être un -isme – à savoir l'animalisme, une idéologie politique et un mouvement en faveur des animaux – mais il s'agit plutôt d'une -ité, là encore une qualité ou une condition : celle des animaux·ales. Nous voilà donc confronté·es à deux conditions, pour ainsi dire, qui sont réunies d'une manière qui reste à déterminer.

Tout comme l'autiste et l'animal dans le roman de Haddon, les deux conditions sont réunies dans ce titre : l'autisme *et* l'animalité. Que signifie ici la conjonction ? Qu'y a-t-il de si problématique dans cette rencontre pour qu'on consacre une étude philosophique entière à la clarifier ? L'autisme et l'animalité sont-elles marquées par une relation de proximité, d'analogie, ou d'identité, ou bien ce couple est-il plutôt caractérisé par la distance, la tension, et l'exclusion mutuelle ? Si l'on suit le commentaire de Mitchell et Snyder sur le roman de Haddon, il semble que l'expression « l'autisme et l'animalité » pourrait peut-être être reformulée en « l'autisme comme animalité ». L'inquiétude de Christopher face à la mort de Wellington et sa disposition à participer à l'(hum)animalité (par opposition à l'humanité typique) corroborent cette proposition.

Pourquoi faudrait-il, pour rendre compte de la relation entre l'autiste et l'animal, se tourner vers l'état, la qualité ou la condition sous-jacente ? Peut-être est-ce parce que la nature même de cette relation, et ce que l'on peut en dire, dépendent de la manière dont on perçoit et décrit la nature de ses acteurs. L'autisme et l'animalité sont donc en jeu dans la rencontre entre l'autiste (le jeune garçon) et (le corps de) l'animal (mort), et peut-être sont-ils reconfigurés par cette rencontre. Le fait que Christopher incarne une forme de « trouble dans l'espèce », comme le soutiennent Mitchell et Snyder, suggère que, dans le contexte occidental dans lequel il évolue, son autisme remet en question la dichotomie traditionnelle entre l'humain et l'animal.

Il est toutefois préférable de ne pas tirer de conclusions hâtives, car l'animalisation d'un jeune garçon autiste (qui plus est fictif) n'équivaut pas à l'animalisation de toutes les personnes autistes, et encore moins à celle de l'autisme lui-même. À cet égard, l'animalité que l'on retrouve dans la rencontre entre Christopher et Wellington ne constitue qu'une forme d'animalité parmi tant d'autres, de même que l'autisme de Christopher ne constitue

certainement qu'une forme d'autisme parmi un ensemble plus large, et ce d'autant plus que, dans le roman, il n'est pas du tout présenté comme de l'autisme. Pourquoi alors parler d'autisme et d'animalité au singulier, et non d'autismes et d'animalités au pluriel ? Pour clarifier les significations à attribuer à ces concepts et à leur rencontre, il convient maintenant de présenter les différents domaines de recherche qui guideront cette étude.

L'AUTISME : ENTRE ETUDES CRITIQUES DU HANDICAP, ETUDES CRITIQUES DE LA NEURODIVERSITE ET ETUDES CRITIQUES DE L'AUTISME

Qu'est-ce que l'autisme ? Il s'agit là d'une question réputée difficile, que cette thèse n'a pas l'intention d'examiner en profondeur. Cependant, à titre d'introduction, il est utile de fournir quelques éléments d'historicisation, d'épistémologisation et de politisation. Il est en ce sens plus facile de décrire (et de critiquer) la construction historique et scientifique de l'autisme que de définir ce dernier.

Le terme « autisme » a été inventé en 1911 par Eugen Bleuler, un psychiatre suisse qui s'est inspiré du concept freudien d'« auto-érotisme », dont il a retiré toute référence à l'éros. Pour Bleuler, l'autisme n'était pas un syndrome psychiatrique à part entière, mais un symptôme de la schizophrénie, caractérisé principalement par le retrait. En 1943 et 1944 respectivement, le psychiatre ukrainien-américain Leo Kanner et le psychiatre autrichien Hans Asperger ont publié leurs célèbres observations cliniques sur des enfants autistes, permettant ainsi d'approfondir la catégorie d'« autisme ». Dans les années 1980, les psychiatres britanniques Lorna Wing et Judith Gould ont inventé la notion de « triade autistique », qui englobe des déficits en matière de communication sociale et d'imagination, des troubles de l'interaction sociale et des comportements restreints et répétitifs. Ces traits sont regroupés en deux grandes catégories de « symptômes » dans la version actuelle du Manuel diagnostique et statistique des troubles mentaux publié par l'Association américaine de psychiatrie, le DSM 5.

L'autisme a connu divers tournants de la pensée psychiatrique et psychologique, des premiers régimes comportementalistes et psychanalytiques aux approches neurocognitives, biomédicales et cognitivo-comportementales actuelles. Depuis la fin du XXe siècle la conception clinique de l'autisme s'est appuyée sur trois théories principales : le déficit de la théorie de l'esprit, le dysfonctionnement exécutif et la faible cohérence centrale. Ces théories partent toutes du principe que l'autisme est un trouble psychiatrique caractérisé par des déficits majeurs. Comme le montre également le chapitre 5, le tournant neurologique dans les sciences psychologiques a constitué un changement radical, souvent en lien avec une biologisation de

l'autisme. Ces dernières années, l'autisme a donc été de plus en plus étudié dans des contextes biomédicaux, en particulier dans les sciences neurobiologiques et génétiques. Dans ces contextes, les scientifiques spécialisé·es dans l'autisme ont tenté d'identifier des « facteurs de risque » potentiels et de déterminer la transmission biogénétique de l'autisme. Ces pratiques sont examinées plus en détail au chapitre 6.

Maintenant que les principales conceptions « officielles » de l'autisme ont été évoquées, il est temps de signaler que les communautés autistes s'offusquent généralement des constructions scientifiques et psychiatriques de l'autisme. Si la compréhension que læ lecteur·ice a de l'autisme repose, même marginalement, sur l'une de ces théories scientifiques, il serait préférable qu'iel oublie tout ce qu'iel croit savoir, car celles-ci ne sont guère plus que les piliers idéologiques d'une violence systémique et institutionnalisée à l'encontre des personnes autistes.

Selon M. Remi Yergeau, par exemple, les théories sur la théorie de l'esprit sont préjudiciables à plusieurs niveaux : en affirmant que les humain·es possèdent une théorie de l'esprit et que les personnes autistes n'en ont pas, ces théories privent les personnes autistes de leur humanité[1680]. Non seulement elles s'appuient sur une représentation dangereuse de l'autisme comme un déficit d'empathie et de rhétoricité, mais elles négligent également la nature profondément incarnée de l'autisme et les liens souvent intenses que les personnes autistes entretiennent avec leur environnement. Comme l'a démontré Damian Milton, chercheur spécialisé dans les études critiques de l'autisme, il existe plutôt un « problème de la double empathie », dans lequel les personnes autistes et allistes (c'est-à-dire non autistes) ont *mutuellement* du mal à se comprendre en raison de modes de communication et d'empathie divergents[1681].

De tels arguments permettant de désapprendre et de réapprendre ce qu'est l'autisme pourraient être proposés pour chacun des critères diagnostiques de l'autisme[1682]. Ce n'est pas l'objet de cette thèse, mais j'espère sincèrement que les concepts et les cadres théoriques élaborés et discutés dans ces pages aideront les lecteur·ices à réajuster leur perception de l'autisme. À cet égard, il est essentiel de commencer par les écrits autobiographiques et scientifiques des personnes autistes[1683]. Ces dernières années, des théories et des modèles

---

[1680] M. Remi Yergeau, « Clinically Significant Disturbance: On Theorists Who Theorize Theory of Mind », *Disability Studies Quarterly*, vol. 33, n° 4 (2013).

[1681] Damian Milton, « On the Ontological Status of Autism: The "Double Empathy Problem" », *Disability & Society*, vol. 27, n° 6 (2012), pp. 883–887.

[1682] Sur les nombreux mythes qui composent la représentation hégémonique de l'autisme, voir Stimpunks, « Navigating Autism Acceptance Month and Autism Myths », *Stimpunks*, s.d., consulté le 29 janvier 2026. https://stimpunks.org/fieldguide/dei/navigating-autism-acceptance-month-and-autism-myths/.

[1683] Pour une introduction à l'autisme par des personnes autistes, les lecteur·ices peuvent se reporter à Nick Walker, « What Is Autism? », *Neuroqueer*, s.d., consulté le 29 janvier 2026. https://neuroqueer.com/what-is-autism/ ; ou, pour la version éditée, voir Nick Walker, « What Is Autism? » in *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, Fort Worth : Autonomous Press,

scientifiques sur l'autisme, tels que la théorie du monde intense (chapitre 1) et la théorie du monotropisme (chapitre 5), ont été développés par des scientifiques autistes et ont permis de traduire avec succès l'expertise communautaire fondée sur les expériences vécues de l'autisme en conceptions et épistémologies (partiellement) sanctionnées scientifiquement. Ces nouvelles épistémologies ont également joué un rôle central dans le développement de l'autoreprésentation des personnes autistes et du mouvement de la neurodiversité, sur lesquels je reviendrai plus loin.

Les perspectives scientifiques et théoriques sur l'autisme se multiplient ainsi. Cependant, ces nouvelles découvertes et connaissances (qui demeurent parfois partiellement problématiques) n'ont pas conduit à l'unification de la catégorie. Le concept d'autisme reste profondément sous-déterminé, au point que certain·es pourraient préconiser de l'abandonner complètement. Compte tenu du manque de validité scientifique des constructions psychiatriques et biologiques, et des nombreux changements que la catégorie a subis au cours de ses quatre-vingts ans d'histoire, on serait en droit de se demander si le concept fait réellement référence à une réalité unique et unifiée dans le monde réel. Cependant, læ philosophe neurodivergent·e Robert Chapman a fait valoir que « l'autisme peut rester une classification significative et utile » lorsqu'il est compris « comme une catégorie sociale »[1684]. Suivant ces observations, d'autres chercheur·euses ont commencé à parler de l'autisme au pluriel, évoquant par exemple les « autismes multiples » [*multiple autisms*][1685] ou « les nombreux autismes » [*the many autisms*][1686]. Ces propositions font écho à l'expression populaire dans les communautés autistes, selon laquelle « si vous avez rencontré une personne autiste, vous avez rencontré une personne autiste », et certainement pas l'autisme lui-même.

Soucieux·se de mettre en avant les voix autistes dans cette thèse, j'éviterai autant que possible de m'appuyer sur des sources médicales, sauf à des fins critiques. Ces conceptions sont déjà bien connues et ne méritent pas qu'on s'y attarde davantage, et encore moins d'être placées au même niveau que les connaissances expertes des communautés autistes. Cependant, la perspective épistémologique développée dans cette thèse, qui s'inspire de l'épistémologie féministe des savoirs situés, invite à mettre l'accent sur la multiplicité, la non-homogénéité et la non-pureté des savoirs subalternes. Elle invite par exemple à prêter une attention soutenue à l'intersectionnalité d'expériences autistes qui peuvent également être des expériences de

2021, pp. 85–87 ; Autistic Collaboration, « A Communal Definition of Autistic Ways of Being », *Autcollab*, 28 décembre 2021, consulté le 29 janvier 2026. https://autcollab.org/projects/a-communal-definition-of-autism/ ; Stimpunks, « Autism », *Stimpunks*, s.d., consulté le 29 janvier 2026. https://stimpunks.org/glossary/autism/.

[1684] Robert Chapman, « The Reality of Autism: On the Metaphysics of Disorder and Diversity », *Philosophical Psychology*, vol. 33, n° 6 (2020), résumé.

[1685] Jennifer S. Singh, *Multiple Autisms: Spectrums of Advocacy and Genomic Science*, Minneapolis et Londres : University of Minnesota Press, 2015.

[1686] Anna Stenning, *Narrating the Many Autisms: Identity, Agency, Mattering*, New York et Abingdon : Routledge, 2024.

racialisation, de colonisation, de féminisation, de (dé)sexualisation, de précarisation, d'infantilisation, etc.

À cet égard, les représentations sociales, scientifiques, culturelles et politiques de l'autisme ont été historiquement marquées par de multiples formes d'exclusion : elles se sont principalement concentrées sur les garçons autistes blancs issus du Nord global. L'androcentrisme de ces représentations est peut-être mieux illustré par le courant dominant de la recherche sur l'autisme, qui occulte systématiquement les travaux pionniers de Grunya Sukhareva, une pédopsychiatre soviétique qui a été la première à décrire et à pathologiser l'autisme. À Moscou, Sukhareva a mené des observations cliniques sur onze jeunes enfants qu'elle a décrits dans des articles scientifiques en 1925-1926, soit une vingtaine d'années avant les publications d'Asperger et de Kanner[1687]. Il est significatif que les travaux de Sukhareva aient porté aussi bien sur des filles que sur des garçons, tandis que ceux d'Asperger et de Kanner, qui sont les seuls à être entrés dans l'histoire, se sont concentrés presque exclusivement sur les garçons. L'androcentrisme et l'hétéronormativité de la recherche sur l'autisme ont également été particulièrement évidents dans la théorie de Simon Baron-Cohen selon laquelle l'autisme serait le résultat d'un « cerveau masculin extrême »[1688] et dans le développement simultané de thérapies comportementales visant à « guérir » les enfants autistes et queer (voir chapitre 6). Certaines figures célèbres du mouvement de la neurodiversité, telles que Judy Singer, ont également rendu publiques leurs opinions transphobes et essentialistes sur l'autisme et le genre (voir chapitre 5). À ces héritages problématiques, un large éventail d'écrits autobiographiques et de travaux universitaires ont apporté des contre-arguments convaincants. Certain·es ont souligné l'imbrication profonde entre l'autisme et la transidentité[1689], mis l'accent sur le rapport distant au genre ressenti par de nombreuses personnes autistes et les formes uniques de dés/identification au genre dans l'autisme[1690], ou exploré l'idée d'un « phénotype

[1687] Grunya Sukhareva, « Die schizoiden Psychopathien im Kindesalter », *Monatsschrift für Psychiatrie und Neurologie*, vol. 60, n° 3–4 (1926), pp. 235–247.
[1688] Simon Baron-Cohen, « The Extreme Male Brain Theory of Autism », *Trends in Cognitive Sciences*, vol. 6, n° 6 (2002), pp. 248–254.
[1689] Voir Noah Adams et Bridget Liang, *Trans and Autistic: Stories from Life at the Intersection*, Londres et Philadelphia : Jessica Kingsley Publishers, 2020 ; Max Sparrow, *Spectrums: Autistic Transgender People in Their Own Words*, Londres et Philadelphia : Jessica Kingsley Publishers, 2020 ; Yenn Purkis et Wenn Lawson, *The Autistic Trans Guide to Life*, Londres et Philadelphia : Jessica Kingsley Publishers, 2021 ; Jake Pyne, « Temporalités trans, perturbations autistiques. Échapper aux pièges narratifs du temps », *Crash Room*, 2025, consulté le 29 janvier 2026. https://crashroom.ooo/2025/03/19/temporalites-trans-perturbations-autistiques-echapper-aux-pieges-narratifs-du-temps/.
[1690] Voir Jordynn Jack, « Gender Copia: Feminist Rhetorical Perspectives on an Autistic Concept of Sex/ Gender », *Women's Studies in Communication* vol. 35, n° 1 (2012), pp. 1–17 ; Joyce Davidson et Sophie Tamas, « Autism and the Ghost of Gender », *Emotion, Space and Society*, vol. 19 (2016), pp. 59–65 ; Marianthi Kourti et Andrea MacLeod, « "I Don't Feel Like a Gender, I Feel Like Myself": Autistic Individuals Raised as Girls Exploring Gender Identity », *Autism in Adulthood*, vol. 1, n° 1 (2018), pp. 1–8 ; David Jackson-Perry, « The Autistic Art of Failure? Unknowing Imperfect Systems of Sexuality and Gender », *Scandinavian Journal of Disability Research*, vol. 22, n° 1 (2020), pp. 221–229.

autistique féminin »[1691]. Dans l'ensemble, l'intersection entre l'autisme, d'une part, et le genre et la sexualité, d'autre part, fait l'objet de recherches de plus en plus nombreuses dans les milieux universitaires[1692].

Les études sur les intersections entre l'autisme et la culture, la race et l'ethnicité sont également tardives dans les milieux universitaires. Si de plus en plus de travaux abordent ces questions, la recherche courante sur l'autisme et les études de la neurodiversité ne se sont pas encore suffisamment penchées sur ces sujets[1693]. Les sources autobiographiques provenant de personnes autistes racisées sont également de plus en plus nombreuses, mais restent largement marginalisées[1694]. À cet égard, la co-construction du racisme, de la colonialité et de la neuronormativité (c'est-à-dire la régulation sociale du fonctionnement neurocognitif, voir plus bas) doit encore être examinée de manière approfondie. Il en va de même pour les questions de classe et d'(anti)capitalisme, qui restent peu abordées dans la recherche universitaire sur l'autisme[1695], contrairement aux espaces militants autistes, où elles sont un peu plus courantes[1696]. On retrouve également des formes d'âgisme dans l'accent mis par la recherche mainstream sur l'autisme sur l'enfance autiste, qui présuppose que les enfants autistes ne deviennent pas des adultes autistes. D'autres formes de positions sociales intersectionnelles, liées notamment à la validité et à l'espèce, sont explorées en profondeur dans cette thèse. À cette fin, je m'appuie sur des travaux universitaires adoptant des perspectives autistes, handicapées et neurodivergentes, que je vais désormais présenter brièvement.

[1691] Voir Sarah Bargiela, Robyn Steward et William Mandy, « The Experiences of Late-Diagnosed Women With Autism Spectrum Conditions: An Investigation of the Female Autism Phenotype », *Journal of Autism and Developmental Disorders*, vol. 46, n° 10 (2016), pp. 3281–3294 ; Lucie Kanfszer, Fran Davies et Suzanne Collins, « "I Was Just so Different": The Experiences of Women Diagnosed With an Autism Spectrum Disorder in Adulthood in Relation to Gender and Social Relationships », *Autism*, vol 21, n° 6 (2017), pp. 661–669.

[1692] Voir Hanna Bertilsdotter Rosqvist, Anna Day et Meaghan Krazinski, *Exploring Autistic Sexualities, Relationality, and Genders: Living Under a Double Rainbow*, Londres et New York : Routledge, 2025 ; Ruby Hake et Emily Hughes, « Autism and Gender » in Jami L. Anderson et Simon Cushing (dir.), *Contemporary Philosophy of Autism*, New York et Londres : Routledge, 2026, pp. 79–92.

[1693] Voir par exemple Erin Manning, *For a Pragmatics of the Useless*, Durham et Londres : Duke University Press, 2020 ; Amber Davis, Marjorie Solomon et Harolyn Belcher, « Examination of Race and Autism Intersectionality Among African American/Black Young Adults », *Autism in Adulthood*, vol. 4, n° 4 (2022), pp. 306–314 ; Amber M. Davis et al.,, « Exploring Racial Discrimination, Disability Discrimination, and Perception of the Future Among Black-Identifying Emerging Adults with and without Autism in the United States: A Mixed-Methods Descriptive Study », *Journal of Child & Adolescent Trauma*, vol. 17 (2024), pp. 1019–1034 ; Amber M. Davis et al., « Resilience and Strengths in the Black Autism Community in the United States: A Scoping Review », *Autism Research*, vol. 17, n° 11 (2024), pp. 2198–2222 ; Imane Kostet, « The (In)visibilisation of "Ethnicity", "Race" and "Culture" as Constructs of Difference in Global North Autism Disparities Research », *Autism*, vol. 0, n° 0 (2025).

[1694] Voir Lydia X. Z. Brown, E. Ashkenazy et Morénike Giwa Onaiwu, *All the Weight of Our Dreams: On Living Racialized Autism*, Lincoln : DragonBee Press, 2017 ; Kala Allen Omeiza, *Autistic and Black: Our Experiences of Growth, Progress and Empowerment*, Londres et Philadelphie : Jessica Kingsley Publishers, 2024 ; Anand Prahlad, *The Secret Life of a Black Aspie: A Memoir*, Fairbanks : University of Alaska Press, 2017.

[1695] Le principal contre-exemple se trouve dans Robert Chapman, *Empire of Normality: Neurodiversity and Capitalism*, Londres et Las Vegas : Pluto Press, 2023.

[1696] Voir par exemple Nathaniel Flakin, « Autism and Anticapitalism », *Left Voice*, 3 avril 2019, consulté le 1er février 2026. https://www.leftvoice.org/autism-and-anticapitalism/ ; Jaime Hoerricks, « There's Got to Be a Better Way: An Autistic Critique of Capitalism », *The AutSide*, 19 avril 2024, consulté le 1er février 2026. https://autside.substack.com/p/theres-got-to-be-a-better-way-an.

Les mouvements de défense des personnes autistes ont vu le jour dans les années 1990. L'un des espaces où cela s'est produit est Autism Network International, « une organisation d'entraide et d'autoreprésentation par et pour les personnes autistes »[1697], dirigée par Jim Sinclair, Kathy Grant et Donna Williams. Ces premiers développements dans le militantisme autiste trouvaient souvent leur origine dans les perspectives et les pratiques développées au sein des communautés de personnes handicapées et du mouvement pour les droits des personnes handicapées aux États-Unis d'Amérique, souvent dès les années 1960. À cet égard, l'autisme a également été conceptualisé en termes théoriques et sociologiques comme un handicap.

Dans le champ universitaire des études du handicap, on distingue généralement le modèle médical et le modèle social du handicap. Selon le modèle médical, le handicap serait caractérisé par un ensemble de déficits individuels au sein du corps-esprit handicapé. Cette perspective individualiste implique que l'origine et la cause du handicap se trouvent dans la biologie ou la psychologie de l'individu. En raison de cette étiologie organique, la personne handicapée est considérée comme responsable de faire traiter ou guérir sa pathologie par des interventions médicales. Au contraire, dans le modèle social, le handicap est caractérisé par un processus d'invalidation, situé à l'interface entre le corps-esprit handicapé et son environnement social et matériel[1698]. Dans cette perspective sociale, l'origine et la cause du handicap sont comprises comme résultant de l'inadéquation entre les capacités et incapacités [*impairments*] de l'organisme (ses caractéristiques biologiques et psychologiques) et les attentes ou les exigences de la société. On considère que la société est validiste (ou capacitiste) lorsqu'elle présume que la capacité est une norme universelle et qu'elle ne fournit pas les aménagements nécessaires pour permettre la pleine participation des personnes présentant des incapacités (par exemple, les personnes sourdes et aveugles, les personnes à mobilité réduite, celles souffrant de douleurs chroniques, etc.) dans tous les domaines de la société. En ne s'adaptant pas à tous les types de corps-esprits, c'est donc la société qui crée le handicap. En raison de cette genèse sociale du handicap, la société est également considérée comme responsable de garantir les conditions matérielles et sociales nécessaires à la pleine inclusion des personnes handicapées.

Cependant, le modèle social du handicap a également des limites. L'accent qu'il met historiquement sur le social plutôt que sur le biologique est souvent considéré comme un écueil. En effet, le modèle social tend à reproduire les potentielles lacunes des théories poststructuralistes et constructivistes sociales de l'incarnation, qui ont été accusées de trop mettre l'accent sur la construction discursive et sociale du biologique ou du psychologique,

[1697] Voir Autism Network International, page d'accueil, s.d., consulté le 26 janvier 2026, ma traduction. https://www.autismnetworkinternational.org.
[1698] Voir Mike Oliver, « The Politics of Disablement », *Disability, Handicap & Society*, vol. 5, n° 3 (1990), pp. 187–200; Tom Shakespeare, « The Social Model of Disability », in Lennard J. Davis (dir), *Disability Studies Reader*, New York : Routledge, 2006, pp. 209–218.

reléguant ainsi parfois au second plan l'agentivité de la matière et l'expérience vécue du sujet. Avec le tournant néomatérialiste de la philosophie posthumaniste au début du XXIe siècle, les perspectives socio-constructivistes ont été complétées par de nouvelles façons d'aborder les sciences de la vie. Cela a donné naissance à de nouvelles approches qui, s'appuyant sur le modèle social du handicap, accordent une attention renouvelée à la matérialité et à l'expérience vécue. Citons par exemple le modèle relationnel social développé par Carol Thomas et le modèle bioculturel proposé par Lennard Davis[1699].

Le militantisme autiste est également lié historiquement au mouvement de la neurodiversité, qui s'est développé dans les espaces en ligne au milieu des années 1990, en particulier sur les listes de diffusion « pour la vie autonome » (*Independent Living*, ou InLv), issues du mouvement handi éponyme. Ces communautés ont développé collectivement[1700] le concept de neurodiversité pour désigner « la diversité des esprits humains, la variation infinie des fonctions neurocognitives au sein de notre espèce »[1701], comme le définit Nick Walker. Ce concept repose sur deux fondements rhétoriques et théoriques, qui sont explorés respectivement dans les chapitres 4 et 5 : faisant écho au concept de biodiversité, le mouvement plaide pour la préservation de la diversité neurologique au sein de l'espèce humaine[1702] ; en écho aux « grands mouvements pour les droits civiques et la fierté du XXe siècle » [1703] relatifs (entre autres) à la diversité culturelle et sexuelle, il célèbre souvent la diversité neurologique comme phénomène sociale. Cela a abouti, pour des penseur·euses comme Ralph Savarese et Nick Walker, à une philosophie politique du neurocosmopolitisme[1704].

Selon les partisan·es de la neurodiversité, l'autisme ne devrait plus être considéré comme une pathologie ou un trouble mental, mais comme une variante neurocognitive naturelle parmi tant d'autres au sein de l'espèce humaine. Bien qu'il s'agisse d'une minorité statistique et d'une forme de vie politiquement minorisée, l'autisme devrait donc échapper aux coordonnées de la médicalisation et, en particulier, de la pathologisation. En 2000, la militante autiste Kassiane

---

[1699] Voir Carol Thomas, « Rescuing a Social Relational Understanding of Disability », *Scandinavian Journal of Disability Research*, vol. 6, n° 1 (2004), pp. 22–36 ; Lennard J. Davis, *The End of Normal: Identity in a Biocultural Era*, Ann Arbor: The University of Michigan Press, 2013.

[1700] Sur l'origine collective du concept de « neurodiversité », voir Monique Botha et al., « The Neurodiversity Concept Was Developed Collectively: An Overdue Correction on the Origins of Neurodiversity Theory », *Autism*, vol. 28, n° 6 (2024), pp. 1591–1594.

[1701] Walker, *Neuroqueer Heresies*, p. 34, ma traduction.

[1702] Harvey Blume, « Neurodiversity: On the Neurological Underpinnings of Geekdom », *The Atlantic*, 30 septembre 1998, consulté le 12 avril 2025, https://www.theatlantic.com/magazine/archive/1998/09/neurodiversity/305909/ ; Judy Singer, « Judy Singer's Official Definition of Neurodiversity », s.d., consulté le 24 mars 2024, https://neurodiversity2.blogspot.com/p/what.html.

[1703] Chapman, *Empire of Normality*, p. 130, ma traduction.

[1704] Sur cette notion, voir Ralph Savarese, « From Neurodiversity to Neurocosmopolitanism: Beyond Mere Acceptance and Inclusion », in C. D. Herrera et Alexandra Perry (dir.), *Ethics and Neurodiversity*, Newcastle upon Tyne : Cambridge Scholars Press, 2013, pp. 191–205 ; Nick Walker, « Reflections on Neurocosmopolitanism », in *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, Fort Worth : Autonomous Press, 2021, pp. 72–79.

Asasumasu a forgé les termes « neurodivergence » et « neurodivergent·e », ce dernier désignant « toute personne dont les fonctions neurocognitives s'écartent des normes culturelles dominantes »[1705]. Ce concept englobe divers modes de fonctionnement innés, tels que l'autisme, le mal-nommé trouble déficitaire de l'attention avec ou sans hyperactivité (TDAH), l'épilepsie, les troubles de l'apprentissage (dyslexie, dyspraxie, dysorthographie, dysgraphie et dyscalculie), le syndrome de La Tourette et la trisomie 21, mais aussi des modifications acquises du fonctionnement neurocognitif liées au traumatisme, à des pratiques de méditation sur le temps long ou à la consommation répétée de psychotropes[1706]. L'inclusion d'autres conditions traditionnellement définies comme des « troubles psychiatriques », tels que l'anxiété, la dépression, les troubles de la personnalité (bipolaire, limite, antisociale, etc.) et le trouble obsessionnel-compulsif (TOC) reste controversée au sein du mouvement et des études de la neurodiversité. Si pour certain·es, cette inclusion devrait être évidente et automatique, pour d'autres, ces troubles psychologiques relèvent plutôt de l'activisme fou[1707] et du régime des « troubles mentaux »[1708].

Dans les années 2010, le domaine des études de la neurodiversité a fait son apparition dans le monde universitaire, principalement en relation avec la psychologie. D'abord menées par des chercheur·euses autistes, les études de la neurodiversité sont rapidement devenues autonomes par rapport aux études du handicap. Comme l'a proposé Nick Walker dans *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*, la neurodiversité ne se réduit pas au handicap, car certaines formes de neurodivergence ne sont pas intrinsèquement sources d'incapacités et ne sont pas soumises à des processus sociaux d'invalidation. Cependant, cela reste vrai pour la plupart des neurodivergences, et ce que certain·es ont commencé à appeler le « handicap neurodivergent »[1709] englobe la plupart des formes connues de neurodivergence.

Selon Walker, les études de la neurodiversité et le mouvement éponyme reposent sur un changement de paradigme, passant du paradigme de la pathologie – récemment rebaptisé

[1705] Kassiane Asasumasu [Neurodivergent K of Radical Neurodivergence Speaking], « PSA from the Actual Coiner of "Neurodivergent" », Lost in my Mind TARDIS, Tumblr, 2015, consulté le 24 mars 2024, ma traduction. https://sherlocksflataffect.tumblr.com/post/121295972384/psa-from-the-actual-coiner-of-neurodivergent

[1706] Les deux derniers exemples sont tires de Walker, *Neuroqueer Heresies*, pp. 69–71.

[1707] Mon usage de « fou », « folle » et « fol » en version épicène renvoie à la revendication politique du terme par des survivant·es de la psychiatrie au début des années 2000, qui a donné lieu au champ des études folles, au mouvement pour la fierté folle, etc. Similaire à « queer », « fou » est le produit d'un retournement du stigmate.

[1708] Sur ces discussions, voir Robert Chapman, « Neurodiversity, Disability, Wellbeing », in Hanna Bertilsdotter Rosqvist, Nick Chown et Anna Stenning (dir.), *Neurodiversity Studies: A New Critical Paradigm*, Londres et New York : Routledge, 2020, pp. 57–72 ; Robert Chapman, « Defining Neurodiversity for Research and Practice », in Hanna Bertilsdotter Rosqvist, Nick Chown et Anna Stenning (dir.), *Neurodiversity Studies: A New Critical Paradigm*, Londres et New York : Routledge, 2020, pp. 218–220.

[1709] Voir par exemple Robert Chapman in Awais Aftab, « Neurodiversity and the Social Ecology of Disability », *Psychiatric Times*, vol. 39, n° 5 (2022). https://www.psychiatrictimes.com/view/neurodiversity-and-the-social-ecology-of-disability.

« paradigme neuronormatif »[1710] – au paradigme de la neurodiversité. Selon Walker, le paradigme de la neurodiversité repose sur trois principes fondamentaux : (1) l'idée que « la neurodiversité [...] est une forme naturelle, saine et précieuse de diversité humaine », (2) l'idée qu'« il n'existe pas de style de fonctionnement "normal" ou "correct" de l'esprit humain », et (3) l'idée que « les dynamiques sociales qui se manifestent en matière de neurodiversité sont similaires aux dynamiques sociales qui se manifestent en matière d'autres formes de diversité humaine (par exemple, la diversité raciale, culturelle, de genre ou d'orientation sexuelle) »[1711]. À l'inverse, le paradigme de la pathologie fait référence à (1) l'idée qu'« il existe une seule façon "correcte", "normale" ou "saine" pour le cerveau et l'esprit humains d'être configurés et de fonctionner », et (2) l'idée que « si votre configuration et votre fonctionnement neurologiques […] s'écartent considérablement du standard dominant de "normalité", alors il y a quelque chose qui ne tourne pas rond chez vous »[1712].

Ces dernières années, l'institutionnalisation croissante des études de la neurodiversité dans le milieu universitaire a conduit au développement de nouvelles approches dans ce champ, axées sur « les arts, les sciences humaines et la théorie sociale critique »[1713]. Ce champ d'études se développe ainsi dans divers contextes disciplinaires, tels que la philosophie de la psychiatrie, la philosophie morale et politique, la sociologie et l'histoire. Les « études » thématiques ne sont pas en reste, des approches inspirées des études de la neurodiversité étant développées dans les humanités médicales, les études de genre et la théorie féministe, les études noires et décoloniales, les études littéraires, les études culturelles, les études (neuro)queer, les études (neuro)trans, ainsi que les études plus-qu'humaines, posthumanistes et les études animales (critiques). Des sous-champs des études de la neurodiversité émergent également autour des études critiques de l'autisme et des études critiques du TDAH.

En juin 2025, un colloque sur les études critiques de la neurodiversité s'est tenu à l'université de Durham, au Royaume-Uni. Cet événement visait à marquer un « tournant critique » dans ce domaine d'étude. Pour la première fois peut-être, l'idée qu'une « première vague d'études sur la neurodiversité » était passée apparaît dans l'appel à communications[1714]. Certaines limites évidentes des travaux antérieurs dans ce domaine ont été soulignées, telles que le quasi-monopole des travaux sur l'autisme (par rapport aux recherches sur d'autres formes de neurodivergence), la blancheur et l'ethnocentrisme des perspectives dominantes en matière

[1710] Helen Edgar, « The Neuronormative Paradigm », *Autistic Realms*, 11 novembre 2025, consulté le 15 novembre 2025. https://autisticrealms.com/the-neuronormative-paradigm-naming-the-systems-that-harm/.
[1711] Walker, *Neuroqueer Heresies*, p. 19, ma traduction.
[1712] *Ibid*., p. 18, ma traduction.
[1713] ND Hums, « Call for Abstracts: Critical Neurodiversity Studies, 24–26 June 2025, Durham, UK », *The Neurodivergent Humanities Network*, s.d., consulté le 26 janvier 2026, ma traduction. https://ndhumanities.com/2024/12/17/call-for-abstracts-critical-neurodiversity-studies-24-26-june-2025-durham-uk/.
[1714] *Ibid*.

de neurodiversité, et le développement du paradigme de la « neurodiversité lite », c'est-à-dire une version allégée, dépolitisée et individualisée du mouvement (voir le chapitre 2)[1715]. Bien que l'appel à contributions ne fasse pas mention explicite d'une deuxième vague et appelle simplement à un « tournant critique », il est de plus en plus évident qu'un tel changement est en cours. Avec la prolifération des sous-champs et des tournants, les études de la neurodiversité ne se contentent plus de répondre aux attaques de la psychiatrie ou de développer un paradigme unifié de la neurodiversité, mais déploient une diversité d'approches et de cadres théoriques qui répondent à différents contextes géographiques, disciplinaires, théoriques et politiques.

Au-delà des études du handicap et de la neurodiversité, l'autisme a souvent été abordé sous l'angle des études critiques de l'autisme, un domaine scientifique lié à la fois aux études du handicap et à celles de la neurodiversité. Néanmoins, certain·es chercheur·euses autistes ont fait valoir que, pour correctement interpréter et contrer les représentations dominantes de l'autisme dans les sphères scientifique, culturelle et politique, un domaine de recherche spécifique à l'autisme était nécessaire[1716]. Ces représentations sont en effet historiquement et politiquement chargées, complexes et en constante évolution : même si la recherche sur l'autisme doit s'ouvrir à une réflexion et à une pratique concertées avec d'autres communautés neurodivergentes et folles[1717], le projet de renversement des relations de pouvoir concernant l'oppression et la violence autismophobes justifierait des recherches menées par des personnes autistes et centrées sur l'autisme[1718]. Les études critiques de l'autisme se sont donc développées en étroite collaboration avec les études du handicap et de la neurodiversité, mais aussi parfois en contraste ou en opposition avec celles-ci[1719].

Tout au long de cette thèse, je mobilise alternativement les perspectives et les cadres théoriques des études (critiques) du handicap, de l'autisme et de la neurodiversité. Les cadres théoriques et les méthodologies déployés dans les parties I et II correspondent respectivement aux approches des études du handicap et des études critiques de la neurodiversité (avec des éléments issus des études critiques de l'autisme), dont la nature et les contributions spécifiques sont décrites dans leurs introductions respectives. Le choix de mobiliser à la fois les études du

[1715] Sur la neurodiversité lite, voir Shain M. Neumeier, « "To Siri with Love" and the Problem with Neurodiversity Lite », *Rewire News Group*, 9 février 2018, consulté le 26 janvier 2026. https://rewirenewsgroup.com/2018/02/09/siri-love-problem-neurodiversity-lite/.

[1716] Voir par exemple Sonya Freeman Loftis, « Critical Autism Studies: The State of the Field », *Ought: The Journal of Autistic Culture*, vol. 5, n° 1 (2023), pp. 10–17.

[1717] Voir Nathan V. Mallipeddi and Rachel A. VanDaalen, « Intersectionality Within Critical Autism Studies: A Narrative Review », *Autism in Adulthood*, vol. 4, n° 4 (2022), pp. 281–289.

[1718] Voir par exemple Richard Woods et al., « Redefining Critical Autism Studies: A More Inclusive Interpretation », *Disability & Society*, vol. 33, n° 6 (2018), pp. 974–979.

[1719] Pour des exemples de travaux majeurs en études critiques de l'autisme, voir Joyce Davidson et Michael Orsini, *Worlds of Autism: Across the Spectrum of Neurological Difference*, Minneapolis et Londres : University of Minnesota Press, 2013 ; Damian Milton et Sara Ryan, *The Routledge International Handbook of Critical Autism Studies*, New York et Londres : Routledge, 2024.

handicap et les études de la neurodiversité, bien que principalement de manière séparée, découle d'une volonté de mettre en évidence des gestes et des horizons théoriques et politiques distincts. Ces deux cadres correspondent également à deux moments différents dans l'argumentation de la thèse : la première partie examine la construction culturelle, scientifique et politique de diverses figures du handicap dans la modernité occidentale (par exemple, la disharmonie, le désordre [*disorder*], le dysfonctionnement, etc.) ; la seconde partie explore les histoires, les évolutions et les horizons potentiels de la théorisation et de l'activisme en faveur de la neurodiversité. Comme cela apparaîtra clairement ci-dessous, ces deux moments abordent les discussions sur l'autisme et l'animalité de différentes manières.

Bien que cette étude mobilise ces deux perspectives, je souhaite situer ses principales contributions au niveau de la neurodiversité. Cela s'explique par la nature et l'histoire spécifiques de l'autisme, qui en est venu historiquement à incarner et à représenter le mouvement de la neurodiversité. Ce choix s'explique également par le fait qu'il reste encore beaucoup à faire pour comprendre les contributions uniques des études de la neurodiversité à la réflexion sur (l'autisme et) l'animalité. De plus, les perspectives abordées dans la partie II, qui sont centrées sur l'autisme, sont également pertinentes pour d'autres formes de neurodivergence et sont parfois abordées à travers le prisme plus large de la neurodiversité elle-même.

À cet égard, ma décision de me concentrer spécifiquement sur l'autisme, plutôt que sur d'autres formes de neurodivergence, découle de mon appartenance à cette communauté, mais j'espère que les propositions développées dans cette thèse pourront servir l'objectif plus large de la théorisation et de l'organisation politique des personnes neurodivergentes et handicapées. Il est toutefois important de mentionner que les positions autistes présentent des singularités significatives, comme en témoigne le développement des études critiques de l'autisme. Cette observation s'applique également aux discussions sur l'animalité, les personnes autistes et la culture autiste témoignant de formes uniques d'affinité et de relationnalité avec les animaux·ales non humain·es qui ne sont pas aussi marquées dans d'autres formes de handicap et de neurodivergence. Par conséquent, il ne faudrait pas imaginer que l'autisme puisse implicitement parler au nom de l'ensemble des communautés et perspectives neurodivergentes ou les représenter. Malgré sa prétention à la généralité, ma contribution reste donc profondément ancrée et limitée par l'accent mis sur l'autisme.

L'ANIMALITE : ENTRE ETUDES ANIMALES CRITIQUES, ETUDES DE L'ANIMALITE ET POSTHUMANISME

L'animalité est le second terme clé de cette thèse. Pourquoi « l'animalité » et non « les animaux·ales » ? Pourquoi pas « l'animalisme » ? Comme nous l'avons déjà vu, l'animalité désigne globalement la condition de l'être-animal, une condition qui mêle constitution biologique, représentations sociales et régulation politique. Le fait que les humain·es soient des animaux·ales mais refusent souvent de se décrire comme tel·les en dit long sur la construction sociopolitique de l'animalité en Occident. À cet égard, l'animalité ne doit pas être abordée à la même manière dont on parle d'« humanité » pour désigner l'ensemble de la population qui constitue l'espèce humaine. Le terme ne fait pas référence ici à l'ensemble de la population animale humaine et non humaine (ou du moins pas directement), mais au fait d'être (et d'être perçu·e comme) un·e animal·e dans un contexte donné.

Bien sûr, l'animalité a été perçue et traitée différemment selon les contextes historiques et géographiques. Le contexte socio-historique qui m'intéresse dans cette thèse est, d'une manière générale, la modernité-colonialité occidentale. Nous verrons que l'animalité a joué un rôle déterminant dans l'établissement et le maintien de l'humanisme, notamment à travers sa répression. À cet égard, il est utile de présenter les différents cadres théoriques qui alimentent la compréhension de l'animalité dans cette thèse. Les discussions universitaires autour de « la question de l'animal », comme l'appelait Jacques Derrida, se déroulent dans des contextes de recherche de plus en plus diversifiés et à travers un large éventail de perspectives théoriques et politiques. Ces différentes approches sont généralement regroupées sous le terme générique d'« études animales ». Cependant, comme l'a justement fait remarquer Michael Lundblad, la notion d'études animales « en est venue à englober un éventail si large de travaux que ceux-ci peuvent souvent être en contradiction (voire en opposition explicite) les uns avec les autres » ; il propose ainsi « d'abandonner l'utilisation du terme "études animales" »[1720]. Il serait donc trop simpliste et imprécis de dire que cette thèse contribue aux études animales, car cela ne dirait pas grand-chose sur son contenu et les orientations théoriques et politiques qu'elle propose. Quels autres cadres pourraient convenir pour décrire mon travail ?

Pour répondre à cette question, il est utile de se référer à une typologie introduite par Lundblad afin de rendre compte des différentes perspectives qui abordent la question animale. Dans un tableau qui distingue trois perspectives différentes, Lundblad classe, de gauche à

[1720] Michael Lundblad, « Introduction: The End of the Animal – Literary and Cultural Animalities » in Michael Lundblad (dir.), *Animalities: Literary and Cultural Studies Beyond the Human*, Édimbourg : Edinburgh University Press, 2017, p. 1, ma traduction.

droite, les *human-animal studies*, les études de l'animalité et le posthumanisme[1721]. La première perspective, les human-animal studies, se concentre principalement sur « les interactions, les co-constructions et les relations matérielles entre les animaux humains et non humains ou les constructions des animaux en tant qu'animaux »[1722]. Elle englobe divers sous-domaines, parmi lesquels les études humanimales et les études animales critiques. Dans l'imaginaire collectif, ces dernières font référence à une forme plus intersectionnelle et politisée des études animales, où la dimension « critique » signale une orientation politique décrite en termes de véganisme et d'abolitionnisme, et/ou une orientation théorique décrite à travers la théorie critique. Par ailleurs, l'articulation par Lundblad des études de l'animalité se concentre principalement sur les « [c]onstructions des humains en tant qu'animaux ou les discours sur l'animalité en relation avec la politique culturelle humaine »[1723]. Enfin, le champ du posthumanisme met en avant les discussions sur « le sujet "humain" conscient de l'humanisme, y compris la dichotomie humain/animal en termes philosophiques »[1724]. Cependant, comme le note à juste titre Lundblad, la recherche posthumaniste ne se concentre pas toujours sur les questions d'animalité ; dans certains cas, les questions écologiques et technologiques occupent le devant de la scène et peuvent reléguer l'animalité au second plan.

Tout au long de cette thèse, j'occupe ces trois positions alternativement, parfois simultanément. Une perspective d'études animales critiques est évidente dans la grammaire théorique et politique de l'antispécisme. Cette étude s'intéresse ainsi à la co-construction du spécisme et du validisme/de la neuronormativité, deux axes de pouvoir décrits comme des formes d'oppression entremêlées. Elle aborde également la relation entre les humain·es autistes et les animaux·ales non humain·es et établit une typologie des positions autistes sur les questions du véganisme et de l'antispécisme. De cette manière, un horizon abolitionniste se maintient résolument tout au long des chapitres.

À l'autre extrémité du spectre, le posthumanisme sert de point de départ et d'aboutissement à ce projet de thèse (plus à ce sujet dans la conclusion générale). Il constitue la toile de fond du cadre théorique et de la méthodologie développés dans la partie I, sous la forme d'un engagement avec le posthumanisme critique. Il joue également un rôle central dans la partie II, où la déshumanisation des personnes autistes est abordée à travers une déconstruction de la figure anthropocentrique et neuronormative de l'humain typique. En outre, certaines des éthologies philosophiques (voir plus bas) qui inspirent cette thèse sont associées au posthumanisme, même lorsqu'elles se concentrent explicitement sur l'animalité. La place

[1721] *Ibid*., p. 3.
[1722] *Ibid*., ma traduction.
[1723] *Ibid*., ma traduction.
[1724] *Ibid*., ma traduction.

centrale du posthumanisme dans mon approche réside également dans l'argument (développé plus bas) selon lequel l'humanisme constitue le fondement à la fois de l'oppression intra-humaine et du spécisme anti-animal et que, pour cette raison, les études animales critiques et l'antispécisme doivent s'ouvrir aux perspectives posthumanistes, et *vice versa*.

Entre les études animales critiques et le posthumanisme, les études de l'animalité occupent le point central de mon argumentation. Cette perspective est développée à travers une critique de l'espèce, comprise non pas tant comme une position identitaire à occuper, mais plutôt comme un appareil rhétorique et matériel du biopouvoir qui demande à être interrogé. La critique de la spécificité de l'espèce et de la typicité pour l'espèce élaborée au chapitre 4 ne peut, à cet égard, être directement assimilée à une perspective antispéciste, mais seulement indirectement : ce n'est pas tant le concept d'espèce qui est traditionnellement contesté dans la philosophie antispéciste, mais plutôt son instrumentalisation comme justification morale d'un traitement injuste et violent. Ma lecture de la critique de l'espèce comme une forme d'antispécisme est donc médiatisée par un cadre théorique d'études de l'animalité. C'est cette logique qui me conduit, dans certaines parties de la thèse, à reformuler le concept de spécisme, qui désigne traditionnellement le traitement discriminatoire des animaux·ales non humain·es, en « spécisme anti-animal ». Une telle démarche me permet de signaler la double participation d'un « discours de l'espèce » – un concept introduit par Cary Wolfe, que j'examine au chapitre 4 – aux formes d'oppression intra-humaines et non humaines. Cela peut toutefois se faire au prix d'une simplification, car le terme « anti-animal » peut involontairement suggérer une opposition dualiste entre l'humain et l'animal.

De plus, les études de l'animalité sont également liées au posthumanisme dans ce travail de recherche à travers l'éthologie philosophique, une perspective qui propose d'examiner la nature et l'ontologie de l'animalité. Traditionnellement, c'est avant tout l'animalité des animaux·ales non humain·es qui est mise en avant par les éthologues philosophiques, même si un tel cadre est inévitablement amené à réfléchir sur l'animalité des animaux·ales humain·es. Néanmoins, ma propre compréhension de l'éthologie philosophique peut parfois s'écarter d'une approche strictement posthumaniste, en particulier à travers les implications ontologiques de son épistémologie, telles que la distinction inébranlable entre les domaines de l'animal, du végétal et du non vivant qui découle de mon engagement envers la phénoménologie (animale).

Comment comprendre la relation entre ces trois appareils analytiques en ce qui concerne l'animalité ? Loin d'une relation de juxtaposition, les études animales critiques, les études de l'animalité et le posthumanisme fonctionnent main dans la main, même si on serait parfois tenté·es de les séparer. Il existe en effet de profondes sources de tension entre ces approches. Cela est mis en évidence par la description que fait Lundblad de ces champs d'études, en

particulier sa distinction entre les études animales critiques et les études de l'animalité. Dans un article précédent, Lundblad introduit la notion d'« études de l'animalité »

> pour désigner des travaux qui ne manifestent aucun intérêt explicite pour la défense des animaux non humains, même s'ils s'intéressent à la manière dont nous percevons les animaux « réels ». Les études de l'animalité peuvent privilégier les questions de politique humaine, par exemple en ce qui concerne la manière dont nous avons envisagé l'animalité humaine et non humaine à différents moments historiques et culturels[1725].

À cet égard, les études de l'animalité mettent l'accent sur la construction sociale et l'instrumentalisation de l'animalité humaine sous la forme de la déshumanisation, et en particulier de l'animalisation. Cela distingue clairement les études de l'animalité des études animales critiques, ces dernières étant explicitement axées sur la politique de lutte contre le spécisme anti-animal. Pour Lundblad, les conséquences sont claires : « Les études de l'animalité pourraient donc être considérées comme spécistes, mais les études animales [critiques], à l'inverse, courent le risque de formuler des prescriptions ahistoriques et universalistes sur la manière de traiter ou d'interagir avec les animaux non humains »[1726].

Il me semble que le spécisme potentiel décrit par Lundblad n'est pas propre aux études de l'animalité, mais s'étend également au posthumanisme, qui n'a pas toujours réussi à apporter des réponses profondes et satisfaisantes à la question de l'oppression animale. À cet égard, c'est notamment la perspective d'un posthumanisme déconstructionniste d'inspiration derridienne qui fait l'objet de mon intérêt et de ma critique, et qui inspire la réflexion de Lundblad sur l'animalité. La critique de Lundblad à l'endroit de l'ahistoricité et de l'universalisme dans les études animales critiques découle de la tendance de ces dernières à formuler des prescriptions morales universelles pour orienter les relations entre les humain·es et les animaux·ales et à lutter pour des droits universels des animaux·ales non humain·es. Ce faisant, elles ont tendance à s'engager dans ce que l'on pourrait appeler une grammaire politique humaniste. Inspirées par le posthumanisme – là encore, en particulier une forme derridienne de posthumanisme – les études de l'animalité de Lundblad restent méfiantes à l'égard des entreprises politiques qui tendent à renforcer des idées potentiellement problématiques enracinées dans la tradition humaniste.

Ces tensions entre les études animales critiques, d'une part, et les études de l'animalité et le posthumanisme, d'autre part, sont au cœur de mon examen de l'autisme et de l'animalité, car elles concernent la rencontre entre une lutte politique (jusqu'à présent) intra-humaine par et

---

[1725] Michael Lundblad « From Animal to Animality Studies », *PMLA/Publications of the Modern Language Association of America*, vol. 124, n° 2 (2009), p. 497, ma traduction.
[1726] *Ibid*., p. 500, ma traduction.

pour les humain·es autistes et une lutte politique pour les animaux·ales non humain·es qui tend à agir « pour les animaux d'abord » [*animals first*]. Dans un contexte où les études de l'animalité demeurent un champ d'études marginal, cette opposition a jusqu'à présent été particulièrement prononcée entre les études animales critiques et le posthumanisme, mais il est utile de cartographier la manière dont cette tension se reconfigure dans les études sur l'animalité.

Avec les études de l'animalité, Lundblad se montre critique de la catégorie d'espèce. Il argue que l'espèce ne devrait pas devenir « la prochaine catégorie identitaire – ajoutée à la race, la classe, le genre, la sexualité, le handicap, etc. – et liée au "spécisme" comme principal objet d'étude »[1727]. Son inquiétude concernant un tel cadre d'analyse est que l'espèce pourrait devenir « simplement analogue à d'autres catégories identitaires humaines ou, au contraire, plus fondamentale que toutes celles-ci »[1728]. Si mon travail dans cette thèse rejoint celui de Lundblad dans sa critique d'un concept d'espèce qui « empeste la race et le sexe »[1729], comme le propose Donna Haraway, il peut parfois s'écarter d'une telle perspective d'études de l'animalité en adoptant, peut-être de manière plus affirmative, un concept analytique de spécisme positionné à côté (et articulé avec) ceux du racisme, du sexisme, du validisme et de la neuronormativité.

Cela ne signifie toutefois pas que j'adopte une approche identitaire de l'antispécisme comme mouvement politique par et pour des individus appartenant à des espèces bien définies. Au contraire, les orientations queerféministes et intersectionnelles défendues dans cette étude suggèrent une conception de l'espèce comme une construction sociale qui fonctionne conjointement avec la race, le genre, la classe sociale, etc., plutôt que de manière similaire. Comme je le démontrerai tout au long des chapitres, les discours qui présentent les différents axes de pouvoir comme simplement analogues les uns aux autres ont tendance à négliger leur co-construction plus profonde. À cet égard, nous pouvons suivre Lundblad et d'autres en rejetant l'idée que le spécisme fonctionne exactement « comme » le racisme, le sexisme ou le validisme, car le potentiel qu'a le spécisme d'opprimer les animaux·ales (qu'iels soient humain·es ou non humain·es) est souvent déterminé par la participation directe du racisme, du sexisme et du validisme, et *vice versa*.

L'horizon soutenu par cette étude prend donc la forme d'un branchement entre les études animales critiques et le posthumanisme à travers les études de l'animalité ; à savoir, une tentative de tisser ensemble l'antispécisme et la déconstruction de l'humanisme à travers l'animalité : à quoi ressemblerait un posthumanisme antispéciste associé à des études animales

[1727] Lundblad, « The End of the Animal », p. 9, ma traduction.
[1728] *Ibid*., p. 10, ma traduction.
[1729] Donna Haraway, « Species Matters, Humane Advocacy: In the Promising Grip of Earthly Oxymorons », in Marianne DeKoven et Michael Lundblad (dir), *Species Matters: Humane Advocacy and Cultural Theory*, p. 20, ma traduction.

critiques moins universalistes ? La remise en question et la réappropriation de l'animalité (à travers l'autisme) dans cette thèse nous permettent d'envisager un antispécisme plus nuancé et un posthumanisme plus politique.

À cet égard, la présentation visuelle choisie par Lundblad pour sa typologie est loin d'être anecdotique. Au contraire, elle reflète sa proposition de « situer [les études de l'animalité] entre les human-animal studies et le posthumanisme »[1730] en termes théoriques et politiques. L'accent mis sur l'animalité dans le titre de cette thèse, loin de signaler un engagement premier ou unique envers les études de l'animalité, correspond donc à une stratégie interdisciplinaire : une tentative de rapprocher les études animales critiques et le posthumanisme à travers les études de l'animalité. Une telle stratégie se reflète également dans l'expression potentiellement lourde « antispéciste-posthumaniste », qui occupe une place centrale dans mon titre et qui réapparaît de manière centrale au chapitre 4. Cette proposition, bien qu'elle ne soit pas la plus accessible ou la plus intuitive, n'en reste pas moins productive pour moi : en réunissant deux cadres ou paradigmes qui ont souvent été opposés l'un à l'autre, je cherche à explorer comment cette opposition pourrait se déconstruire si nous lui en donnions la possibilité.

En d'autres termes, lorsque je parle d'une philosophie antispéciste-posthumaniste dans le titre de cette thèse, mon objectif avec le trait d'union n'est pas tant de suggérer qu'une telle jonction est évidente, mais plutôt d'explorer ce lien, avec ses tensions, ses défis et ses potentiels émancipateurs. De plus, lorsqu'il s'agit de décider quel pôle placer en premier, l'antispécisme ou le posthumanisme, la présentation visuelle de la typologie de Lundblad n'est qu'un facteur potentiel parmi d'autres. Non seulement l'antispécisme – en particulier via l'approche des études animales critiques – est placé à gauche du posthumanisme dans le tableau de Lundblad, mais cette formulation donne également à voir la primauté du politique sur le philosophique : je préfère prendre le risque de formuler des prescriptions universelles plutôt que d'assumer des présupposés spécistes.

ARGUMENTS PRINCIPAUX

L'examen de l'autisme et de l'animalité dans cette thèse aboutit à quelques arguments fondamentaux. Premièrement, l'intersection entre l'autisme et l'animalité est un lieu clé de la co-construction politique de la neuronormativité et du spécisme. Cette co-construction est le produit de l'humanisme, une structure idéologique qui se trouve au fondement de divers systèmes de pouvoir dans la modernité-colonialité occidentale. Cela signifie que les discours et

[1730] Lundblad, « The End of the Animal », p. 9, ma traduction.

les politiques neuronormatives à travers lesquelles les personnes autistes sont déshumanisées et animalisées sont étroitement liées aux discours et aux politiques spécistes à travers lesquelles les animaux·ales non humain·es sont opposé·es à la figure de l'humain typique.

Cet argument est articulé de différentes manières tout au long de la thèse. Dans la partie I, j'introduis le concept de modernité dishumaine afin d'analyser la manière dont les conceptions modernes et post/humanistes de l'humanité et de l'animalité ont été directement liées aux représentations du handicap (autistique), souvent à travers leur répression[1731]. Dans la partie II, à travers l'examen des dispositifs de bestialisation et des technologies de spéciation, et à travers le concept d'éthonormativité, je démontrerai que le validisme et la neuronormativité, d'une part, et le spécisme, d'autre part, reposent sur des logiques et des idéaux imbriqués.

Cependant, je suivrai Cary Wolfe en soulignant que de nombreux mouvements de justice sociale ne sont pas parvenus à prendre au sérieux le rôle que l'humanisme (et ses dérivés, l'anthropocentrisme et le spécisme) a joué dans l'établissement et le maintien de divers systèmes d'oppression : « Les débats dans les sciences humaines et sociales entre les critiques bien intentionnés du racisme, de l'(hétéro)sexisme, du classisme et de tous les autres "ismes" qui constituent le fonds de commerce des études culturelles restent presque toujours enfermés dans une structure spéciste jamais remise en question »[1732]. Cette observation correspond à un deuxième argument clé développé tout au long de cette thèse, à savoir que l'humanisme a toujours été (et continue d'être) corrélé à l'inhumanisme et/ou à la déshumanisation.

Cela se manifeste dans des processus d'humanisation partielle, qui reposent sur la déshumanisation et l'animalisation de communautés marginalisées. Chaque fois qu'un groupe humain minorisé (par exemple féminisé, racisé, handicapé ou autrement marginalisé) réussit à s'humaniser, cela tend à être conditionné par la déshumanisation ou l'animalisation d'autres groupes minorisés et par la répression (peut-être plus fondamentale encore) des animaux·ales non humain·es. En témoignent les politiques assimilationnistes telles que l'homonationalisme, le fémonationalisme, le nationalisme vegan ou les positions anti-queer et anti-trans dans les mouvements lesbiens, gays et bisexuels contemporains. En ce qui concerne l'autisme, la « suprématie Aspie » et la « neurodiversité lite » constituent des exemples de politiques assimilationnistes par lesquelles des personnes autistes privilégiées tentent parfois de se démarquer d'une masse de populations autistes, neurodivergentes et folles plus marginalisées. Ces phénomènes sont examinés respectivement dans les chapitres 1 et 2.

Ces phénomènes d'humanisation par la déshumanisation sont de plus en plus courants à l'ère de la gouvernementalité néolibérale, où les politiques identitaires et les mouvements

[1731] La notion de post/humanisme est discutée dans l'introduction à la partie I.
[1732] Cary Wolfe, *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory*, Chicago : University of Chicago Press, 2003, p. 1, ma traduction.

« progressistes » sont capturés et assimilés dans l'ordre social hégémonique. Cependant, l'humanisation de la blancheur, de la masculinité ou de l'ethos bourgeois au début de la modernité reposait déjà sur l'abjection de la noirceur, de l'autochtonie, de la féminité, de la sexualité, de l'enfance ou de l'animalité. Par exemple, le développement de mouvements humanitaires et réformistes en faveur du bien-être animal – tels que le *humane movement* aux États-Unis d'Amérique ou les mouvements « zoophiles » en France (voir chapitre 4) – a humanisé les personnes bourgeoises blanches sensibles à la question animale tout en provoquant (ou plutôt à travers) la déshumanisation de groupes humains racisés et/ou précarisés. Cela a également rendu les animaux·ales non humain·es rhétoriquement et matériellement exploitables au sein du capitalisme techno-industriel, en particulier à travers l'idée que la complexité de l'exploitation ou de l'abattage « humains » s'oppose à la prétendue barbarie des formes traditionnelles (par exemple non occidentales ou paysannes) d'exploitation et d'abattage des animaux·ales.

L'humanisation, plus qu'une finalité politique fondamentalement désirable ou une étape vers la libération totale, s'inscrit dans un processus d'appropriation et d'exclusion de la différence[1733]. C'est à travers cette logique que l'animalité en vient à constituer ce que j'appelle un « autre constitutif », à savoir une forme de différence rendue abjecte mais qui n'en est pas moins nécessaire aux pratiques hégémoniques d'humanisation. En d'autres termes, tant le concept d'animalité que les animaux·ales en chair et en os ont joué un rôle décisif dans l'établissement et le maintien d'une série de concepts humains (par exemple, l'humanité, l'autisme, la neurodiversité, etc.) et de positions sociales de pouvoir (à savoir, la bourgeoisie, la blancheur, la masculinité, la validité, la santé mentale, etc.), tout en en étant systématiquement exclues. Cela est particulièrement évident dans la première partie de la thèse, où j'expose la construction « dishumaine » et « disanimale » des concepts modernes d'autisme, de handicap, d'humanité et d'animalité. À cet égard, la dialectique de l'humanisation par l'animalisation constitue un instrument dans une téléologie humaniste du progrès qui est tout sauf innocente.

Dans la deuxième partie, je montre que cette analyse s'applique aux études de la neurodiversité (et au mouvement de la neurodiversité), qui ont en grande partie et délibérément choisi d'exclure les animaux·ales non humain·es. J'insisterai toutefois sur le fait que le concept de neurodiversité peut ouvrir un espace de critique antispéciste-posthumaniste, même si cette charge critique n'a jamais été explicitement formulée auparavant. Pour ce faire, il sera nécessaire de s'appuyer sur les théories féministes intersectionnelles, qui ont accordé une

[1733] Voir Paola Cavalieri, « Consequences of Humanism, or, Advocating What? », in Marianne DeKoven et Michael Lundblad (dir.), *Species Matters: Humane Advocacy and Cultural Theory*, New York : Columbia University Press, 2012, pp. 49–73.

attention particulière à la co-construction de divers systèmes de pouvoir et à la distribution intersectionnelle des préjudices et des privilèges. À cet égard, les perspectives transféministes, queer, antiracistes, décoloniales, crip, neurodivergentes et antispécistes sont réunies tout au long de la thèse.

De ces deux premiers arguments – (1) la co-construction du spécisme et de la neuronormativité et (2) la dialectique de l'humanisation et de la déshumanisation – découle un troisième argument : l'humanisme n'est peut-être pas l'horizon politique désirable qu'on présente souvent, mais fait partie du problème. Au mieux, il peut constituer une stratégie politique utile à court terme, mais celle-ci repose souvent sur l'exclusion de communautés encore plus marginalisées, qui se voient ainsi privées de droits ou de reconnaissance. Ce constat jette les bases d'une politique plus intersectionnelle et coalitionnelle, où la libération de chaque groupe marginalisé est liée à celle de tous les autres. Tout au long de cette thèse, j'explore donc les façons dont le discours et la politique de l'autisme et de la neurodiversité risquent parfois de reproduire des formes néfastes de logiques humanistes et spécistes, mais aussi les façons dont elles pourraient être reconfigurées pour mieux tracer un horizon de libération totale.

REFLEXIONS SUR LA DISCIPLINE PHILOSOPHIQUE ET LA METHODE

Cette thèse de doctorat propose d'articuler une philosophie antispéciste-posthumaniste de la neurodiversité. Comment comprendre le terme « philosophie » dans cette proposition ? Bien que cela puisse sembler quelque peu banal, il est peut-être utile de revenir à l'étymologie du mot « philosophie », qui en grec ancien désignait « l'amour de la sagesse ». Et qui mieux que l'être humain, l'*Homo sapiens*, littéralement « l'homme sage », peut représenter la sagesse ? S'il est vrai que la sagesse est une caractéristique typiquement humaine, ou plutôt humaniste, alors la proposition d'une philosophie posthumaniste peut sembler paradoxale à plus d'un titre.

Dans le Séminaire de Jacques Derrida *La Bête et le Souverain*, que j'examine au chapitre 4, le philosophe français propose des commentaires réflexifs sur la pratique philosophique. Il note que, par leur désir de juger ou de conclure, par exemple sur des questions relatives à la nature humaine et animale, les humain·es accomplissent un geste typiquement humaniste qui les rend plus bêtes que les bêtes elles-mêmes. Derrida inclut dans sa critique les philosophes aux côtés d'autres sujets humains, tels que les tyrans. La philosophie constituerait donc un excellent exemple de pratique humaniste.

Cependant, la pensée de Derrida illustre bien le potentiel d'une philosophie posthumaniste, voire la perspective du posthumanisme *en tant que* philosophie, à savoir une pratique dans laquelle la philosophie joue un rôle décisif dans le renversement de l'humanisme. Derrida a en effet inspiré de nombreux·ses philosophes posthumanistes, tel·les que Donna Haraway et, plus explicitement, Cary Wolfe[1734]. Leur pensée peut être caractérisée, en partie, par un refus des binarismes ontologiques-épistémologiques et des arbitrages universels en matière d'éthique et de politique. Ces philosophes ont développé des philosophies posthumanistes qui peuvent parfois entrer en conflit avec la grammaire humaniste de la vie quotidienne, y compris dans des mouvements politiques tels que les militantismes animaliste et handicapé.

Une façon de surmonter cette friction que cette thèse examine est l'humanisme stratégique, une pratique qui consiste à mobiliser des outils conceptuels ancrés dans la pensée humaniste pour résister à la logique politique de l'humanisme. Cependant, comme le note Michael Lundblad dans une discussion sur les travaux de Cary Wolfe, l'humanisme stratégique ne produit pas les mêmes effets et ne suit pas la même logique dans les différents contextes dans lesquels il est mobilisé. En effet, s'il peut être légitime, voire stratégique, pour les militant·es handicapé·es ou antispécistes de mobiliser des logiques humanistes lorsqu'iels s'adressent à leur journal local, cette tactique peut ne pas être entièrement satisfaisante dans le domaine universitaire, en particulier en philosophie[1735]. Wolfe, qui fonde son argumentation sur une lecture de Derrida, suggère que la philosophie (et les humanités en général) a la responsabilité de résister aux logiques ancrées dans la tradition humaniste libérale. Selon eux, cette dernière devrait être réservée à l'activisme politique en dehors de l'université : « Dans le premier cas, mon expérience suggère que le discours sur les droits universels, issu de la tradition libérale de la justice en philosophie et d'un ensemble de coordonnées philosophiques, politiques et juridiques très situées historiquement, n'est pas seulement utile, mais est à bien des égards aussi indispensable qu'inévitable »[1736].

Mon rapport à la philosophie, tant dans la vie que dans cette thèse, pourrait en partie être résumé par la discussion d'une telle philosophie posthumaniste d'orientation derridienne. À première vue, il pourrait sembler que les philosophes ont la responsabilité unique d'échapper

[1734] Cette comparaison ne vise pas à suggérer que l'œuvre de Wolfe serait intrinsèquement plus philosophique que celle de Haraway, mais plutôt à souligner la propension de Wolfe, probablement plus forte que celle de Haraway, à décrire sa pratique comme philosophique.
[1735] Cet argument a été initialement avancé par Cary Wolfe dans *What is Posthumanism?* Minneapolis et Londres : University of Minnesota Press, 2010, p. 124. Il est ensuite repris et discuté par Lundblad dans *Disanimality* : *When Disability, Illness, and Animality Meet*, Oxford : Oxford University Press, sous presse, chapitre 1, « Posthumanist Animality », para. 3–4.
[1736] Cary Wolfe, « Humane Advocacy and the Humanities: The Very Idea », in Marianne DeKoven et Michael Lundblad (dir.), *Species Matters: Humane Advocacy and Cultural Theory*, New York : Columbia University Press, 2012, p. 28, ma traduction.

à la pensée humaniste. Cela semble d'autant plus important que le monde universitaire, et la philosophie en particulier, sont des hauts lieux de l'idéologie humaniste. Mais ce faisant, les philosophes ne risquent-iels pas de renforcer le statut social particulier et la sacralisation de la philosophie au sein et en dehors de l'université, plutôt que de s'y opposer et de les déconstruire ? Mon rapport à une telle approche est donc marqué à la fois par la sympathie et l'inconfort. En tant que doctorant·e formé·e en philosophie et amateur·ice de philosophie, je peux apprécier l'engagement à transformer une discipline de l'intérieur. Cependant, en tant que sujet politique qui adhère à un horizon de libération totale, je suis plus critique à l'égard des risques potentiels qui accompagnent ce geste. Plus précisément, je crains qu'en s'engageant ainsi dans la déconstruction (philosophique) de la tradition philosophique, on puisse résister aux tendances hégémoniques de l'université tout en fournissant des outils aux acteur·ices hégémoniques extérieur·es à l'université, dans le champ politique. De plus, je crains que l'engagement de Derrida à penser « en philosophe »[1737], qu'il considère comme une responsabilité unique – et qu'il oppose à des disciplines telles que la sociologie et la science politique[1738] – ne finisse par renforcer une discipline déjà positionnée au sommet de la hiérarchie disciplinaire au sein des humanités.

Ainsi, bien que cette thèse de doctorat constitue un travail universitaire qui ne peut être directement assimilé à de l'activisme politique, elle découle néanmoins d'orientations politiques qui dépassent le cadre universitaire. À cet égard, on pourrait dire qu'elle s'inscrit dans la théorie critique, comprise depuis Karl Marx comme un instrument permettant de changer le monde plutôt que de simplement l'interpréter. Une autre description, peut-être moins prestigieuse, mais tout aussi précise, serait de la positionner comme un travail philosophique qui s'efforce philosophiquement de renverser la philosophie (et pas seulement l'humanisme). Si devenir professeur·e de philosophie implique, pour Derrida, une « profession de foi »[1739] dans la pensée philosophique, même lorsque cela implique une distance abyssale par rapport à l'activisme extra-universitaire, alors peut-être faudrait-il résister au professorat de philosophie et à la profession philosophique. De même, si devenir philosophe signifie embrasser le caractère sacré de la philosophie en tant que discipline, ne serait-ce que pour la déconstruire, alors peut-être est-il important de pratiquer la philosophie sans devenir philosophe. Que signifierait, dans une logique posthumaniste, pratiquer la philosophie non seulement au sein de l'université, mais aussi sans l'université et hors de l'université ?

À cet égard, cette thèse pourrait être considérée comme un objet chimérique, à la fois philosophique et non philosophique. D'une part, je ne peux qu'espérer qu'elle réponde aux

[1737] *Ibid*., pp. 44, 46, ma traduction.
[1738] Derrida, cité dans *Ibid*., p. 45.
[1739] Derrida, cité dans *Ibid*., pp. 38–39, ma traduction.

prérequis pour l'obtention d'un doctorat en philosophie, avec des problématisations, un travail conceptuel et analytique, et des arguments rigoureux. D'autre part, la performativité du devenir philosophe reste pour moi fortement ambivalente. Lors d'événements de nature diverse (tant universitaires que non universitaires, par exemple dans les cercles militants), on m'a parfois dit que mon style d'écriture et d'expression était dense. (Ce n'était pas toujours un compliment.) Associé à une aversion pour l'imprévisibilité, mon penchant pour les mots conceptuels et les phrases à rallonge m'incite à scripter toutes mes interventions. Le scriptage me permet de chercher les mots justes, d'éviter les approximations et de rester compréhensible. Il m'empêche également de me lancer dans des monologues au rythme effréné qui épuisent parfois mon public aussi bien que moi-même. Je crains que cela m'ait évité de nombreux embarras. Lire un script, surtout sans le soutien d'un diaporama, vous confère une allure très philosophique dans le milieu universitaire. Cela soulève également des questions d'accessibilité.

Ce qui m'intéresse le plus ici, c'est la façon dont le registre de l'écriture philosophique se distingue dans mon cas d'un registre de discours spontané qui peut ne pas sembler aussi philosophique. Dans les régimes culturels du phallogocentrisme et du phonocentrisme, la philosophie est perçue comme l'expression directe et transparente de la sagesse personnelle à travers la parole, dans la présence à soi ainsi qu'à l'auditoire. Mais dans ma vie quotidienne, je suis régulièrement frappé·e par l'impression de demeurer malgré moi un·e philosophe non pratiquant·e. Peut-être en raison de ma neurodivergence, j'ai parfois du mal avec l'oralité et la synchronicité des échanges moins structurés. C'est le cas lorsqu'on me demande d'exprimer des pensées philosophiques à l'improviste, ou lorsque je dois donner mon avis, poser une question ou rebondir sur ce que quelqu'un·e vient de dire, par exemple lorsque j'anime un séminaire. Dans ces moments-là, je panique, je rougis, je bégaye. Je perds mes mots. Souvent, je laisse échapper des phrases avant même d'avoir eu le temps de réfléchir. Je me précipite pour répondre avant d'avoir eu le temps de traiter mentalement ce qui vient d'être dit ou ce que je pourrais bien vouloir répondre. Ou plutôt, ce n'est pas *moi* qui parle ; les mots parlent à travers moi. Peut-être que tout cela ne se passe qu'à l'intérieur de moi sans être très évident pour les autres, mais je le ressens très fortement. Dans ces contextes, celleux qui ne me connaissent pas – et peut-être aussi celleux qui me connaissent – ont peut-être du mal à croire que je suis, supposément, un·e philosophe.

Bien sûr, tout cela est aggravé par le « syndrome de l'imposteur », et le fait d'avoir une salle pleine (ou même quelques personnes) qui attendent que vous preniez la parole peut en effet être très stressant. Même si cela s'est nettement amélioré avec la pratique, je trouve toujours que je suis plus cohérent·e lorsque j'ai pu scripter mes interventions à l'avance. Les mots qui me viennent à la bouche lorsque je ne scripte pas mon discours ne sont pas non plus très philosophiques : à moins que je ne m'efforce consciemment de « masquer », mon discours

oral appartient généralement à un registre familier. Là aussi, il est imprégné de logiques parasitaires : normes sociales, habitudes culturelles et professionnelles, attentes psychologiques de jugement ou d'approbation. Mais même à l'écrit, il n'y a pas chez moi d'expression transparente d'une sagesse préexistante, et mes arguments ne sont pas le résultat d'une causalité linéaire allant de l'intention initiale au produit final sur le papier. Dans les deux cas, les idées se déploient au fur et à mesure que j'écris ou que je parle, échappant à ma volonté, bien au-delà de mon contrôle.

Je me demande si le privilège de la parole et le mythe de la présence à soi ne sont pas préjudiciables aux personnes autistes, en philosophie et au-delà. Pour être reconnu·e comme docteur·e en philosophie, vous devez en effet soutenir votre thèse devant un jury, et les Britanniques appellent cet événement une « viva », du latin *viva voce*, qui signifie « de vive voix ». Si j'ai le privilège d'être une personne autiste oralisante, d'autres n'ont pas cette chance. Au Canada, Adam Wolfond a été la première personne autiste non oralisante à obtenir une maîtrise ès arts en 2025. Malgré mes privilèges, je comprends les obstacles qui rendent la philosophie inaccessible à certain·es. Peut-on être ouvertement neurodivergent·e et philosophe ?

Pour contrer ces logiques, je souhaite écrire à partir d'une perspective située, en revendiquant l'expérience autiste de l'écriture et de la parole philosophiques. Même le texte le plus intentionnel, écrit avec une volonté rationaliste et à partir d'une position imaginaire de désincarnation, reste parasité par l'expérience vécue et les dispositions inconscientes de son auteur·ice, et celui-ci ne fait pas exception. Mes dispositions autistes peuvent parfois entrer en conflit avec mes orientations théoriques et politiques. J'ai beau essayer de pratiquer une philosophie posthumaniste, chercher à déconstruire les catégories métaphysiques et les universalismes moraux de la modernité humaniste occidentale, essayer d'habiter la profondeur et les complexités de la vie non binaire... voilà que la pensée binaire, inspirée par mes orientations autistes et mes engagements politiques, fait un retour en force. Que faut-il comprendre de la philosophie quand celle-ci est utilisée pour infirmer les modes de pensée et d'expression autistes ? Quand elle est instrumentalisée contre la résistance aux violences politiques ? Tout au long de cette thèse, nous rencontrerons des exemples dans lesquels la complexité (philosophique, scientifique, politique) est mobilisée pour justifier moralement la violence et silencier les voix dissidentes.

Concrètement, cela signifie que le posthumanisme philosophique défendu dans cette thèse – en particulier dans la partie II – pourrait donner l'impression, chez certain·es, de coexister avec un humanisme stratégique ou, comme le dirait Cary Wolfe, avec un

« posthumanisme humaniste »[1740]. Il ne s'agit pas d'une thèse qui revendique l'homogénéité ou l'uniformité, mais d'une thèse qui habite les tensions et les troubles de la vie réelle. J'espère que cette approche pourra inspirer une pratique de la philosophie en dehors de la philosophie, au-delà du monde universitaire, en opposition à l'idéal-type de l'« homme sage ».

Plus qu'une philosophie de la neurodiversité, il serait donc peut-être plus approprié, pour décrire cette thèse, de parler d'une philosophie neurodivergente. Pas seulement d'une philosophie de l'autisme, mais aussi d'une philosophie-en-autisme, si seulement une telle chose est pensable. Reflétant l'expérience vécue de nombreuses personnes autistes, les arguments développés dans cette thèse sont également fragmentés et non linéaires. Leur cohérence résulte d'une constance conceptuelle et éthico-politique, d'une construction itérative du sens et d'une synthèse *a posteriori*, plutôt que d'un cadre théorique unique, d'une méthodologie systématique ou d'une logique *a priori*. Cette thèse ne cherche pas à répondre à un problème ou à une question unifiée comme le ferait une dissertation traditionnelle de philosophie, ni à suivre une structure prédéterminée avec un plan linéaire, allant des hypothèses et de la méthodologie aux résultats et aux discussions. Elle propose plutôt un engagement soutenu auprès de champs d'étude et pratique la construction de sens dans la rencontre entre les textes, les questions et les cadres théoriques.

La zone de contact entre l'autisme et l'animalité, aussi vaste soit-elle, constitue le terrain de jeu de mon étude, sans aucune zone déclarée hors limites. Le choix d'inclure ou d'exclure certains sujets et discussions suit les dés/orientations de ma propre neurodivergence, où le choix des objets et des activités dépend des niveaux d'énergie, du désir et de l'intérêt plutôt que du devoir, de la raison ou de la méthode. Du latin *inter esse*, ou « être au milieu », l'intérêt renvoie au fait de se consacrer à un objet plutôt que d'essayer de le maîtriser, de se l'approprier ou de le contrôler. Loin des idéaux épistémiques de la neurotypie, qui exigent clarté, linéarité et monoculture, cette thèse propose une épistémologie du pluralisme thématique et de la résonance avec l'objet. Plutôt qu'une enquête ou une exploration, avec leurs connotations coloniales et positivistes, cette thèse pourrait être décrite comme une participation intéressée aux diverses dés/orientations du sujet : il s'agit de tracer des généalogies, de repérer des structures, de souligner des tensions.

Cette thèse est également écrite de manière affective, et bien que mon incarnation et mon affectivité restent largement silencieuses dans ces pages, j'ai estimé qu'il était important, dans cette introduction, de leur accorder une place plus importante. Au moment où j'écris ces lignes, je ne veux pas cacher que j'ai connu plusieurs vagues d'épuisement pendant mes années doctorales et que la pression répétée du travail gratuit dans et pour l'université a laissé des traces

[1740] Wolfe, *What is Posthumanism?*, p. 124, ma traduction.

sur mon bien-être général et ma capacité de travail. Mon désir autiste d'aborder autant de sujets que quatre années d'études le permettent a peut-être été épuisant, mais il ne m'a pas permis d'atteindre l'exhaustivité. L'université néolibérale sait bien sûr comment tirer profit des affects neurodivergents tels que l'anxiété, la bonne volonté et la curiosité.

Cette insistance sur les affects et le corps est directement héritée des épistémologies féministes. Mon parcours doctoral a en effet commencé en études de genre avec une spécialisation en philosophie, faisant suite à une formation préalable dans ces deux domaines. Les études de genre n'étaient pas un choix naturel pour une thèse sur l'autisme et l'animalité, et pourtant c'était le choix le plus évident pour moi. Les études de genre et la théorie féministe m'ont donné l'espace nécessaire pour explorer (et élargir) le champ des possibles, dans un contexte universitaire national où ni les études animales ni les études de la neurodiversité n'ont d'existence institutionnelle. Plus qu'un objet d'étude ou une thématique de recherche, la théorie féministe constitue une méthode de réflexion et un champ social marginal(isé) au sein du monde universitaire. Elle incarne une éthique de la recherche si immédiatement politique qu'elle est parfois soupçonnée d'être « militante » par l'ordre hégémonique. D'une certaine manière, ce contexte (anti)disciplinaire m'a permis d'explorer des méthodes de recherche (neuro)divergentes sans lesquelles cette thèse n'aurait sans doute pas vu le jour.

Avec son sujet controversé (la neurodiversité est loin d'être acceptée en France en raison de la persistance des approches psychanalytiques à l'endroit de l'autisme), sa portée interdisciplinaire et ses implications politiques, cette thèse était déjà atypique pour les études de genre ; elle n'aurait sans doute jamais été envisageable (et encore moins finançable) dans un département de philosophie. À bien des égards, même après mon retour au bercail de la philosophie, cette thèse reste imprégnée des études de genre et de la théorie féministe. Que ce soit en faisant de la philosophie en études de genre ou en introduisant les études de genre dans la philosophie, j'espère contribuer, même de manière marginale, à la tâche urgente de revendiquer la recherche comme champ d'action politique.

Ces perspectives interdisciplinaires (et peut-être antidisciplinaires) se reflètent également dans les orientations méthodologiques explorées dans cette thèse, dont beaucoup s'inspirent de la théorie queerféministe. Par exemple, rompant avec la pratique traditionnelle de la philosophie comme élaboration de concepts universels, cette thèse s'inscrit dans la lignée de théoriciennes féministes posthumanistes telles que Donna Haraway, qui nous ont appris à réfléchir à partir de connaissances partielles, situées et non innocentes. À cette fin, je m'appuie sur une série de figurations matérielles-sémiotiques[1741] qui émergent de la rencontre entre

[1741] Sur la méthode philosophique posthumaniste de la figuration, voir par exemple Stefan Herbrechter, « Postfiguration, or, the Desire of the Posthuman », in *(Un)Learning to Be Human? Collected Essays on Critical Posthumanism. Volume 1*, Leiden et Boston : Brill, 2024, pp. 163–207.

l'autisme et l'animalité : le modèle animal de l'autisme, ou « autisouris », læ thérian·e[1742] ou l'ami·e autiste des animaux·ales pathologisé·e, l'animal·e (neuro/étho)divergent·e et l'humain·e autiste bestialisé·e[1743]. Loin de constituer une avant-garde éclairée ou d'incarner un statut de pure victimisation, ces figures habitent les eaux troubles de l'interface entre autisme et animalité tout en traçant un possible horizon de libération. À cet égard, une figure récurrente tout au long de la thèse est celle de la non-innocence, qui fait référence à une pratique épistémologique d'autoréflexivité par laquelle on refuse de croire aux récits de vérité objective ou de pureté morale. Cette notion harawayenne, que j'examine au chapitre 4, est une source de critique et de déconstruction autant qu'elle dessine une orientation pour l'action.

Une dynamique fondamentale qui se retrouve dans la notion de non-innocence est la question de savoir comment aborder les tensions et les dualismes inhérents à la modernité occidentale, qui peuvent être ramenées de manière productive à une opposition entre positivité et négativité. Les dualismes sont constitutifs de la modernité philosophique et politique en Occident, la vie, les normes et l'ordre étant par exemple opposées à la mort, au chaos et au désordre. Certes, le pôle positif de cette pensée dualiste peut sembler plus affirmatif et désirable, mais il serait réducteur et néfaste de réduire la négativité au mal ou à la violence. Cette thèse hérite et habite certaines tensions fondamentales de la modernité-colonialité occidentale afin de les retravailler et de potentiellement surmonter l'opposition : en (re)travaillant (avec) deux figures dévalorisées, l'autisme et l'animalité, elle se demande comment le fait de réinvestir la négativité pourrait, parfois, nous aider à repenser et à dépasser la logique même du dualisme.

Ces deux mouvements (positivité et négativité) se retrouvent dans la thèse à travers des méthodologies distinctes et à différentes échelles. La négativité s'incarne à l'échelle onto-épistémologique à travers la déconstruction et l'accent mis sur la complexité et l'ambivalence, et à l'échelle éthico-politique à travers la critique et l'abolitionnisme. Elle conduit à la réappropriation politique de concepts chargés négativement, tels que le handicap, le désordre, la disharmonie, la dishumanité, la disanimalité, etc. Ces mouvements se trouvent principalement (mais pas exclusivement) dans la partie I. La positivité est quant à elle explorée à travers la réappropriation subversive de la capacité, de l'ordre et de l'harmonie au-delà des coordonnées du validisme et de la neuronormativité, mais aussi de l'(hum)animalité au-delà des limites du spécisme. Au niveau onto-épistémologique, elle est associée à une reconfiguration de l'ontologie, des concepts tels que l'autisme et l'animalité étant revendiqués comme des réalités désirables plutôt que perçues comme de simples objets d'oppression ou des espaces de

[1742] Les thérian·es sont des individus qui s'identifient à des espèces animales autres que humaines à un niveau profond, parfois spirituel, et peuvent parfois être impliqués dans des pratiques inspirées par ces « thériotypes ». Voir le chapitre 6 ou le glossaire.
[1743] Ces figures et concepts sont développés tout au long des chapitres ; voir le glossaire.

critique. Pour clarifier davantage cette dialectique et les orientations méthodologiques de cette thèse, il est peut-être utile de les aborder de manière plus linéaire. Les introductions aux parties I et II fourniront des explications supplémentaires sur les différentes méthodologies déployées dans ces deux parties et sur la manière dont elles se rapportent aux questions de négativité et de positivité, de critique et d'affirmation. Sans chercher à réduire la complexité de l'argumentation, cet aperçu succinct permettra, je l'espère, de préparer læ lecteur·ice aux dés/orientations générales suivies dans les pages qui suivent.

La première partie de cette thèse propose des « lectures parasitaires », une méthodologie inspirée de la philosophie de Michel Serres, qui consiste à mettre l'accent sur les mouvements d'appropriation, d'exclusion et/ou de récupération subversive qui se produisent lorsque des penseur·euses s'inspirent d'autres idées, figures ou philosophies pour développer les leurs. Ce phénomène, qui reflète la structure interne et routinière de la philosophie, demeure néanmoins souvent non reconnue. De cette manière, le bagage conceptuel ou politique des traditions antérieures, ainsi que les changements et les coupures nécessaires pour les tirer dans de nouvelles directions, sont commodément effacés. Cela comporte non seulement des risques potentiels, mais cela renforce également la figure humaniste du philosophe autonome et indépendant. Pire encore, cela occulte les logiques politiques par lesquelles certaines figures ou idées – telles que l'autisme et le handicap – sont à la fois constitutives et réprimées dans les conceptions hégémoniques de l'humanité et de l'animalité. Mettre l'accent sur ces lectures parasitaires – et sur la manière dont les parasites refoulés reviennent toujours nous hanter – nous permet de comprendre comment les gestes d'exclusion constitutive pourraient se déconstruire. Au-delà de la négativité apparente de la critique ou de la déconstruction, un tel geste est aussi profondément affirmatif : il nous permet de revendiquer des positions minorisées de parasitisme. Grâce à lui, nous pourrions non seulement célébrer les subjectivités minoritaires, mais aussi affiner leur potentiel déconstructif et subversif.

Dans la seconde partie, j'adopte la méthodologie posthumaniste du « semer le trouble », qui tente de dynamiser et de radicaliser les potentialités de la proposition de Donna Haraway consistant à « vivre avec le trouble ». Compris comme une pratique queer de dénaturalisation et de prolifération, le fait de semer le trouble consiste à faire se rencontrer différentes perspectives (telles que les études animales critiques et le posthumanisme, les cadres théoriques écologiques et animalistes, ou encore la philosophie et le militantisme) et à investir les tensions que ces rencontres peuvent susciter. À cet égard, le fait de semer le trouble peut être considéré comme un moyen de rendre compte des paradoxes de l'exclusion constitutive : comment le fait de passer de modèles écologiques de la neurodiversité comme biodiversité *sans* animaux·ales non humain·es à des modèles antispécistes-posthumanistes de la neurodiversité comme trouble dans l'espèce peut-il nous aider à réorienter le tournant plus-qu'humain dans les études de la

neurodiversité ? Comment peut-on subvertir les significations et les effets du discours neurologique, qui est à la fois le fondement historique du mouvement de la neurodiversité et la source de formes uniques de préjudice à l'encontre des personnes neurodivergentes ? Comment un humanisme stratégique peut-il nous aider à résister à la mobilisation de la philosophie posthumaniste contre la libération animale, afin de progresser vers un démantèlement plus concret de l'humanisme et du spécisme ? La méthodologie développée dans la partie II me permet ainsi d'interroger les présupposés implicites à l'œuvre dans les mouvements politiques marginalisés et la recherche universitaire.

PARTIE I – MODERNITÉ DISHUMAINE : LECTURES PARASITAIRES DE L'AUTISME À TRAVERS LES PHILOSOPHIES POST/HUMANISTES

INTRODUCTION: L'AUTISME COMME FIGURE DE LA MODERNITE DISHUMAINE

Dans sa construction clinique et culturelle en Occident, l'autisme est en quelque sorte devenu un symbole de la modernité. Bien que les personnes autistes aient probablement existé en amont, et continuent (et continueront) d'exister en dehors du contexte socio-historique et géographique qui a conduit au développement de la figure scientifique de l'autisme – ou, tel qu'il est actuellement défini dans les classifications diagnostiques, des troubles du spectre autistique (TSA) – cette dernière construction est inextricablement ancrée dans la modernité occidentale. À ce jour, la figure de l'autiste cristallise les traits et tensions fondamentales de la modernité occidentale : le sujet autiste est généralement décrit comme un individu inflexible, déconnecté du monde extérieur. Son individualité rigide, bornée et solipsiste est traditionnellement présentée comme une version pathologique et déformée de l'humanité typique, dans laquelle, par contraste, l'ordre, la capacité à poser des limites et l'autonomie sont considérés comme des caractéristiques exceptionnelles qui séparent le sujet humain du domaine du non-humain. Loin d'être une figure d'altérité ou d'extériorité radicale – à l'image de l'animal, de la plante ou de la matière inerte – l'autiste semble plutôt occuper une position de proximité relative à la conception traditionnelle de l'humain. Cette position ambivalente, à la fois humanisée et déshumanisée, rend la figure de l'autiste susceptible de manipulations rhétoriques et politiques de diverses natures, parmi lesquelles la pathologisation.

Comment comprendre ce renversement des traits humains valorisés en symptômes autistiques pathologisés ? Les traits qui, chez l'être humain typique, sont considérés comme les conditions ontologiques à l'ouverture au monde et aux autres, ainsi qu'au développement sain de l'organisme, deviennent, chez l'individu autiste, des symptômes pathologiques à corriger. La pathologisation est-elle ici le résultat d'une observation empirique, d'une différence objective de degré ? Est-ce l'amplification excessive de traits humains qui pourraient autrement être considérés comme normaux qui fait basculer l'individu autiste dans la pathologie, ou bien y a-t-il un autre enjeu ?

Compte tenu de la pathologisation des traits autistiques, il peut sembler paradoxal à première vue que l'autisme soit de plus en plus mobilisé pour soutenir et consolider toute une

série de représentations et d'orientations hégémoniques à l'échelle scientifique, culturelle, affective et politique. À l'ère moderne, marquée par une succession de blessures narcissiques – du tournant héliotropique et de la découverte de l'évolution naturelle jusqu'à la « mort de l'Homme » et à l'ère géologique de la catastrophe anthropocène – l'individu humain normatif de la modernité occidentale est de plus en plus déstabilisé. Dans ce contexte, la figure de l'autiste fonctionne souvent comme un opérateur de stabilisation : elle est ainsi mobilisée, par exemple, dans les mouvements anti-trans pour justifier l'interdiction des soins d'affirmation de genre pour les mineur·es. Plus couramment, elle est invoquée comme cause de la chute de l'humanité et associée au péché de l'anthropocentrisme : ainsi, une attitude autistique – c'est-à-dire solipsiste et égocentrique – envers la nature est parfois considérée comme ayant précipité l'avènement de la crise climatique.

La nature ambivalente de la figure autistique – mobilisée à la fois par des politiques « conservatrices » et « progressistes » – suggère que l'autisme est devenu bien plus qu'une réalité objective. À bien des égards, l'autisme a largement cédé la place à la figure de « l'autiste », qui fonctionne selon les principes de l'instrumentalité et de l'altérité constitutive. L'instrumentalité, d'abord, dans la mesure où « l'autiste » n'existe plus ou ne fonctionne plus en soi et pour soi, en tant que sujet individuel ou collectif ayant ses propres intérêts et préférences, mais est toujours déjà mobilisé dans des constructions et des représentations sociales multidimensionnelles. De plus, des affects diffus d'anxiété, de peur et d'indignation semblent y être canalisés pour soutenir et matérialiser des agendas politiques différents : l'instauration d'un État fort et autoritaire, la fermeture des frontières nationales, la réglementation stricte de l'incarnation du genre ou le dénigrement des politiques environnementales prétendument « contrôlantes » ou « restrictives ». En ce sens, nous pourrions décrire l'autisme, avec Stuart Murray, comme un « reflet de l'air du temps » [zeitgeist *condition*] [1744], ou, avec Novina Göhlsdorf, comme un « diagnostic du présent » [1745].

L'altérité constitutive, ensuite, car – et c'est l'un des arguments centraux développés dans la première partie de cette thèse – l'autisme a servi, dès le début, d'instrument central dans reconfiguration des concepts modernes d'humanité et d'animalité, souvent par sa séparation de la première et son assimilation à la seconde. À cet égard, la figure de l'autiste est imprégnée d'un ensemble de représentations scientifiques, culturelles et politiques de l'humanité et de l'animalité, qui se croisent avec des logiques de représentation genrées, racialisées et classées, toutes développées et soutenues historiquement dans les contextes européen et nord-américain pendant la modernité-colonialité capitaliste. Le rôle de la figure autiste dans ces appareils s'est

[1744] Stuart Murray, *Autism,* New York : Routledge, 2012, p. 72.
[1745] Novina Göhlsdorf, « Autismus. Diagnose der Gegenwart », *Kinder- und Jugendlichen-Psychotherapie. Zeitschrift für Psychoanalyse und Tiefenpsychologie*, vol. 182, n° 2 (2019), pp. 277–303.

progressivement accru à mesure que le concept traditionnel de l'humain est devenu de plus en plus contesté.

En effet, l'époque contemporaine a été décrite comme une « condition posthumaine »[1746], qui remet en question les notions préexistantes sur la nature de l'humain et interroge celleux qui ou « ce qui compte comme humain »[1747]. Dans le même temps, il est devenu courant de décrire notre ère géologique actuelle comme l'Anthropocène : l'ère de l'humain. Avec l'avènement du posthumanisme dans l'histoire moderne occidentale, la pertinence du concept traditionnel de l'humain devient de moins en moins évidente. À bien des égards, cependant, les philosophies humanistes continuent d'imprégner et d'orienter le fonctionnement de la vie sociale, politique, culturelle et juridique dans les contextes euro-américains et, en raison des effets des interventions (néo)coloniales et des héritages postcoloniaux, dans le monde entier. Dans ce contexte, la relation entre humanisme et posthumanisme, ou entre l'humain et le posthumain, se reflète dans le double statut de la figure de l'autiste : des réalités diverses, potentiellement opposées, semblent coexister en un seul et même lieu.

Philosophies post/humanistes

L'humanisme n'est pas un projet linéaire, un mouvement homogène ou une philosophie unifiée ; le posthumanisme non plus. Au contraire, il a connu de nombreuses phases et pris des formes tout aussi diverses. L'humanisme naissant d'un Descartes, souvent présenté de manière simpliste dans les philosophies antihumanistes comme le point de départ de la modernité scientifique humaniste, et donc comme la principale source à abattre pour le posthumanisme, a été supplanté par de nouvelles formes d'humanisme en Occident. Celles-ci coexistent avec des formes historiques et contemporaines d'humanisme enracinées dans différentes traditions philosophiques et politiques (libérales, socialistes, fascistes, décoloniales, etc.) et différents contextes géographiques, dans lesquelles le concept d'humain se voit attribuer des significations distinctes. De même, entre les variantes techno-euphoriques et techno-sceptiques ; féministes, critiques et populaires ; trans-, non-, in- et classiquement post-humanistes de la pensée posthumaniste, il existe des différences profondes, parfois abyssales.

Les trois chapitres qui constituent la Partie I traitent de théories philosophiques et scientifiques – la théorie de l'Umwelt de Jakob von Uexküll (chapitre 1), la théorie de l'organisme de Kurt Goldstein (chapitre 2) et la théorie du *Mängelwesen* d'Arnold Gehlen (chapitre 3) – qui vont à l'encontre du dualisme cartésien tout en étant solidement ancrées dans

[1746] Rosi Braidotti, *Posthuman Knowledge*, Cambridge et Medford : Polity, 2019, p. 8.
[1747] *Ibid*., p. 6.

des projets anthropocentriques. Cette constellation de théories n'a jusqu'à présent reçu qu'une attention marginale dans les études posthumanistes, mais je suggère qu'elle s'inscrit dans un moment particulièrement instructif de (re)configuration de la pensée humaniste et post-humaniste.

Bien qu'il soit difficile de les regrouper sous une seule étiquette, ces philosophies peuvent néanmoins être rapprochées par leur origine géographique et historique : le monde germanophone du XXe siècle. Leurs auteurs appartiennent également à divers mouvements qui ne peuvent être décrits comme des écoles de pensée établies, mais plutôt comme des constellations d'idées plus ou moins cohérentes : la biologie théorique, la psychologie phénoménologique et l'anthropologie philosophique allemande. Au-delà de ces différentes affiliations, ils incarnent un état d'esprit similaire qui est peut-être représentatif du changement plus large de *zeitgeist* qui a marqué le monde germanophone dans la première moitié du XXe siècle. Ce cadre géographique et historique large est pertinent pour la discussion sur l'humanisme et le posthumanisme puisque, comme le note le philosophe du posthumanisme critique Stefan Herbrechter : « La crise de l'humanisme et des Lumières s'est intensifiée pendant et après les deux guerres mondiales, dans la première moitié du XXe siècle, lorsque le noyau irrationnel de la modernité rationnelle et éclairée est devenu visible à la lumière de l'extermination systématique des Juifs par les nazis et de la possibilité d'une autodestruction nucléaire de l'humanité »[1748]. Il est en effet difficile de trouver un moment historique où les tensions internes de l'humanisme ont été plus apparentes.

D'un point de vue historique, ces textes peuvent nous aider à mettre en lumière certaines caractéristiques fondamentales de la modernité européenne en ce qui concerne la conception hégémonique de ce qui (ou celleux qui) peut être considéré comme humain et de ce qui (ou celleux qui) doit être décrit comme animal. Ils peuvent en effet nous aider à comprendre le contexte sociopolitique dans lequel le concept psychiatrique d'autisme a émergé. De plus, grâce à leur réception au-delà du monde germanophone, par exemple en France ou aux États-Unis d'Amérique, ces théories philosophiques ont subi une série de transformations qui les ont rendues disponibles pour de nouveaux usages philosophiques et pratiques scientifiques.

Il est intéressant de noter que ces philosophies sont de plus en plus mobilisées dans la théorie posthumaniste. Cela s'explique peut-être par leur tendance à rompre avec les formes traditionnelles de dualisme, telles que nature/culture et corps/esprit, en prônant une forme de reconnexion entre l'humain·e et la nature. Ce faisant, elles ont peut-être anticipé l'élan posthumaniste visant à résister aux formes traditionnelles d'anthropocentrisme et contribué au développement de la pensée écologique en Europe. Ces théories se caractérisent également par

[1748] Stefan Herbrechter, *Posthumanism: A Critical Analysis*, London et New York : Bloomsbury Academic, 2013, p. 52, traduction personnelle.

leur volonté de rapprocher les sciences humaines et les sciences de la vie. À cet égard, ces approches s'inspirent largement d'un ensemble de traditions philosophiques développées principalement dans l'aire germanophone – l'idéalisme allemand (principalement Emmanuel Kant), la *Lebensphilosophie* (par exemple Dilthey et Schopenhauer), la phénoménologie (notamment Husserl), la pensée vitaliste et holistique (chez Bergson, Driesch, etc.) – qu'elles retravaillent et réancrent dans les sciences de leur temps, à l'instar de l'anthropologie, l'ethnologie, la zoologie, l'éthologie, la psychiatrie ou la psychologie comparée. De cette manière, ces approches font écho – et anticipent peut-être – le tournant néomaterialiste de la théorie critique et féministe actuelle, ce qui les a parfois conduites à être qualifiées de « proto-posthumanismes ».

Lorsqu'elles ne sont pas décrites comme les précurseurs de la pensée posthumaniste, ces théories sont parfois positionnées rétrospectivement comme des outils potentiels pour repenser le posthumanisme aujourd'hui. Par exemple, selon Herbrechter, l'anthropologie négative que l'on trouve dans des philosophies telles que celle de Gehlen pourrait s'inscrire dans une généalogie alternative du posthumanisme qui s'écarte et complète la version « officielle »[1749], laquelle trouve son origine dans le contexte anglo-américain avec les travaux de Donna Haraway, Katherine N. Hayles ou Rosi Braidotti[1750]. Selon lui, ces approches permettent de retracer un « posthumanisme allemand »[1751]. Avec cette généalogie alternative, Herbrechter envisage un nouvel horizon pour le posthumanisme avec ce qu'il appelle un « posthumanisme européen à-venir »[1752]. Il est essentiel de souligner que, pour Herbrechter, ce posthumanisme européen n'est pas un retour à un passé européen mythique et homogénéisé, comme dans le projet fasciste, mais l'héritage critique et la déconstruction continue de la tradition européenne. À cette fin, il revient à la « *post*-anthropologie négative » susmentionnée, dont l'objectif doit être de travailler sur notre humanité « résiduelle », dépouillée de toute forme connue d'humanisme[1753].

[1749] Stefan Herbrechter, « Posthumanism's German Genealogies », conférence donnée lors du colloque « Posthumanism and the Posthuman: Chances and Challenges », Université de London, mars 2023, consulté le 12 mars 2026, p. 2. Je traduis cette citation et toutes les suivantes tirées de ce texte depuis l'anglais. https://stefanherbrechter.com/wp-content/uploads/2024/11/Posthumanisms-German-Genealogies.pdf.

[1750] Il convient de noter que, bien que la carrière philosophique de Rosi Braidotti se soit déroulée en Europe (respectivement à Paris et à Utrecht, aux Pays-Bas), c'est dans les milieux universitaires anglo-américains que ses travaux ont rencontré le plus d'échos. Il est révélateur, par exemple, que les écrits de Braidotti n'aient jamais été traduits en français.

[1751] Herbrechter, « Posthumanism's German Genealogies », p. 8.

[1752] *Ibid*., p. 5.

[1753] Stefan Herbrechter, *(Un)learning to Be Human? Collected Essays on Critical Posthumanism. Volume 1*, Leiden et Boston : Brill, 2024, p. 242. Je traduis cette citation et toutes les suivantes tirées de cette référence depuis l'anglais.

Cependant, les philosophies d'Uexküll, Goldstein et Gehlen ont également été qualifiées de « néo-humanistes »[1754], notamment par des chercheurs posthumanistes tels que Roberto Marchesini. Ce dernier se distingue dans le domaine du posthumanisme par son engagement philosophique et critique étroit avec ces idées, qui peuvent, d'une certaine manière, être associées au projet posthumaniste critique envisagé par Herbrechter. Comme le suggère Marchesini, à l'instar des nombreux·ses historien·nes de la philosophie qui ont consacré des recherches approfondies à ce contexte historique et géographique, ces théories sont restées largement anthropocentriques malgré leur intérêt pour le plus-qu'humain. C'est tout particulièrement le cas de Gehlen, qui s'est intéressé à la vie non humaine et aux conceptions biologiques non pas tant pour retracer les continuités entre l'humain et l'animal, mais plutôt pour mettre en évidence la position unique de l'humain dans la nature. De cette manière, sa théorie reste ancrée dans l'exceptionnalisme humain. Cette tendance est également visible (bien que de manière moins directe) chez Uexküll et Goldstein qui, comme nous le verrons, ont développé des biologies moins hiérarchiques, mais néanmoins imprégnées de valeurs clairement humanistes (par exemple sexistes, racistes, classistes ou capacitistes).

Cette ambivalence dans la réception et l'interprétation de ces traditions philosophiques témoigne de tensions plus profondes qui ont traversé la philosophie européenne, en particulier le clivage entre les approches affirmatives ou positives (auxquelles on associe traditionnellement Aristote, Spinoza, Hegel, Deleuze, etc.) et les approches négatives ou critiques (dans lesquelles on positionne conventionnellement Heidegger, Adorno, le premier Foucault, Derrida, etc.). À chacun de ces pôles correspond une certaine manière de faire de la philosophie posthumaniste aujourd'hui : les perspectives harawayennes et braidottiennes, qui font partie de la généalogie « officielle », appartiennent à la branche positive et peuvent parfois être amenées à proposer « une définition affirmative, systématique ou positive de l'humain »[1755] comme posthumain. Au contraire, la tradition du posthumanisme négatif – compris comme la déconstruction permanente de l'humanisme[1756] – reste plus prudente face à ces reconfigurations ontologiques et semble être restée plus marginale dans le champ d'études jusqu'à aujourd'hui.

Ce qui m'importe ici n'est pas de trancher ce débat ou de minimiser l'écart entre ces philosophies divergentes. Au contraire, mon objectif ici, en étudiant trois théories (celles d'Uexküll, de Goldstein et de Gehlen) qui reflètent à la fois les traditions affirmatives et négatives, est de mettre en évidence le caractère central de la tension elle-même : en essayant de réprimer la négativité ou de la faire disparaître (de la modernité, de la catégorie de

[1754] Roberto Marchesini, *Over the Human: Post-humanism and the Concept of Animal Epiphany*, Cham : Springer, 2017, p. 34, ma traduction.
[1755] Herbrechter, « Posthumanism's German Genealogies », pp. 8–9.
[1756] Voir Neil Badmington, « Introduction: Approaching Posthumanism », in *Posthumanism*, Neil Badmington (dir.), pp. 1–10, Basingstoke et Londres : MacMillan, 2000 ; Herbrechter, *Posthumanism*, p. 45.

l'« humain », de l'humanisme ou du posthumanisme lui-même), on la conduit nécessairement à refaire surface. En témoignent les divergences conceptuelles et stratégiques qui ont opposé le posthumanisme aux études animales critiques et à d'autres domaines de la pensée critique. Pour ces derniers, le posthumanisme affirmatif s'est révélé largement incapable de traiter correctement la question de la négativité, représentée entre autres par les avatars de la violence, de l'exploitation, de la mort et de l'extinction, trop concentré qu'il a été sur la célébration de l'enchevêtrement et du mélange des êtres humains et plus-qu'humains. C'est peut-être pour cette raison que la théorie posthumaniste est aujourd'hui de plus en plus confrontée à des questions de négativité[1757].

Une large part de la (micro)politique du posthumanisme reste aujourd'hui attachée à une perspective affirmative et positive, qui pourrait se révéler insuffisante pour apporter des réponses satisfaisantes au problème de la négativité. Se tourner vers la contre-généalogie européenne – et en particulier allemande – du posthumanisme peut donc nous permettre de remettre la négativité au centre du débat, notamment en dramatisant et en amplifiant un ensemble de tensions fondamentales qui sont au cœur des sociétés européennes modernes. Plutôt que de choisir un camp ou l'autre, je tente donc, dans cette première partie de la thèse, de mettre en évidence un champ d'ambivalence qui ne se laisse peut-être pas démêler si facilement.

Pour refléter ces ambivalences et ces tensions au sein de (et entre) l'humanisme et le posthumanisme, j'utilise l'expression « philosophies post/humanistes » pour qualifier les théories d'Uexküll, Goldstein et Gehlen, ainsi que la constellation plus large d'auteur·ices et de penseur·euses qu'ils ont mobilisé·es et inspiré·es jusqu'à aujourd'hui. Dans cette expression, la barre oblique nous permet d'interroger ces tensions en rendant visible l'espace qui sépare (mais aussi relie) l'humanisme et le posthumanisme. Comme l'explique Herbrechter, « la barre oblique entre "post" et "humain" (post/humain) proposée par [Elaine] Graham sert principalement à gagner du temps et à créer un espace critique pour une déconstruction plus approfondie de l'humanisme, sans laquelle une réinscription non critique de l'idéologie humaniste dans des formes posthumaines (ou posthumanistes) serait inévitable »[1758].

En ce sens, le geste conceptuel effectué par la barre oblique remplit une fonction critique et normative : il s'agit d'occuper l'espace de la rencontre afin de faire émerger le posthumanisme comme une déconstruction de l'humanisme, ou ce que Herbrechter appelle une « perlaboration » [*working through*/*Durcharbeiten*] de l'humanisme. Un tel geste est également

[1757] Voir Claire Colebrook, *The Death of the PostHuman: Essays on Extinction, Volume One*, Ann Arbor : Open University Press, 2014 ; Patricia MacCormack, *The Ahuman Manifesto: Activism for the End of the Anthropocene*, Londres et New York : Bloomsbury Academic, 2020 ; Nina Lykke, Tara Mehrabi et Marietta Radomska (dir.), *Routledge International Handbook of Queer Death Studies*, Londres et New York : Routledge, 2025.
[1758] Herbrechter, *Posthumanism*, p. 60.

descriptif : il me permet de développer de nouvelles interprétations de théories philosophiques qui semblent contenir des composantes posthumaines (ou posthumanistes) ainsi que non-humaines (ou non-humanistes) et inhumaines (ou inhumanistes). Cette expression signale ainsi le double statut du non-humain, de l'inhumain ou du post-humain en tant que caractéristique refoulée de l'humanisme lui-même ou, comme je le décrirai tout au long de cette thèse, en tant qu'autre constitutif. Il y a toujours déjà une composante posthumaine (ou plutôt, comme certains l'ont appelée à la suite de Jean-François Lyotard, une composante *inhumaine*) à l'œuvre dans l'humanisme : « La fascination pour l'inhumain et sa négation font toutes deux partie intégrante de l'humanisme et de son répertoire, puisque l'opposition binaire entre l'humain et l'inhumain constitue son fondement même »[1759].

Ainsi, dans la première partie de cette thèse, je m'engage dans une forme de posthumanisme critique, une perspective qui consiste à rendre visible la négativité à l'œuvre dans la positivité, l'inhumain à l'œuvre dans l'humanité. Cette approche vise à déconstruire et à déstabiliser la conception traditionnelle et positive de l'humanité et de l'humanisme : il s'agit de révéler la dialectique de l'humanisation et de la déshumanisation, ou plutôt, de l'humanisation *à travers* la déshumanisation. Je suggère que le handicap occupe une telle position d'altérité constitutive au sein de la modernité post/humaniste, à savoir l'un des tropes par lesquels l'humanisation (des personnes valides) est garantie par la déshumanisation (des personnes handicapées, notamment autistes).

La dis/capacité et la modernité dishumaine

Quel est le rapport entre le posthumanisme, d'une part, et le handicap ou la neurodivergence, d'autre part ? Cette question est d'autant plus difficile à répondre que l'autisme n'est apparu sur la scène publique qu'en 1943-1944 avec les travaux de Leo Kanner et Hans Asperger, parfois de nombreuses années après que les auteurs examinés dans la partie I ont développé leurs théories. La clé pour comprendre cette intersection se trouve peut-être dans les travaux de Dan Goodley et Katherine Runswick-Cole. Ces chercheur·euses posthumanistes ont développé le concept de « dishumain » pour plaider en faveur d'« une époque où penser l'humain impliquera *toujours* de penser le handicap »[1760]. Le dishumanisme, en tant que cadre conceptuel,

[1759] *Ibid*., p. 49.
[1760] Dan Goodley et Katherine Runswick-Cole, « Becoming Dishuman: Thinking about the Human through Dis/ability », *Discourse: Studies in the Cultural Politics of Education*, vol. 37, n° 1 (2016), p. 13. Je traduis cette citation et toutes les suivantes tirées de ce texte depuis l'anglais.

cherche à poser des questions telles que « Que signifie être humain au XXIe siècle et de quelle manière le handicap enrichit-il ces significations ? »[1761].

Dans leur « Manifeste DisHumain » publié en 2015, ces penseur·euses ont ainsi appelé à une nouvelle approche, située à l'intersection des études du handicap et du posthumanisme, qui « déconstruit et remet en question les notions dominantes de ce que signifie être humain » et « célèbre le potentiel perturbateur du handicap pour remettre en question ces notions dominantes »[1762]. Ce faisant, iels ont cherché à contrer l'effacement du handicap et des personnes handicapées dans les discours scientifiques et militants sur l'humanité et l'humanisme, ainsi que sur la posthumanité et le posthumanisme. En ce sens, leur perspective est profondément politique. Celle-ci peut être décrite comme une pratique consistant à « vivre avec le trouble [humaniste] »[1763], pour paraphraser Donna Haraway : l'approche dishumaniste « reconnaît qu'il est souhaitable d'être reconnu comme un être humain normal, en particulier pour les personnes qui se sont vu refuser l'accès à la catégorie de l'humain » et « garde à l'esprit les effets pernicieux et étouffants du capacitisme, que nous définissons comme un processus discriminatoire qui idéalise une version étroite de l'humanité et rejette des formes plus diverses d'humanité »[1764]. S'il est vrai, cependant, que l'humanisation repose sur la déshumanisation, il semble que la stratégie visant à rechercher l'humanisation doive être abordée avec prudence. Je reviendrai sur la discussion relative à la stratégie politique au chapitre 4.

À un niveau plus herméneutique, le dishumanisme navigue entre les tensions et les ambivalences qui existent entre les idéaux humanistes de capacité – tels que l'autonomie, l'indépendance et l'identité individuelle [*personhood*] – qui peuvent encore être considérés comme désirables, et les valeurs et expériences des personnes handicapées – telles que la mutualité, la dépendance et la communauté – qui guident la pensée et l'activisme posthumanistes et handicapés. Pour mettre en évidence cette tension, on peut s'inspirer de la proposition de Dan Goodley de reconfigurer les études de handicap en « études de la dis/capacité » [*dis/ability studies*][1765], où la barre oblique « reflète la présence accrue des catégories de handicap parallèlement à des versions toujours plus évolutives de la capacité »[1766].

[1761] DisHuman, « About », 2015, consulté le 14 décembre 2025. https://web.archive.org/web/20160330112632/http://dishuman.com/about/. Traduction personnelle.
[1762] DisHuman, « DisHuman Manifesto », 2015, consulté le 14 décembre 2025. https://web.archive.org/web/20160330115045/http://dishuman.com/dishuman-manifesto/. Traduction personnelle.
[1763] Donna Haraway, *Vivre avec le trouble*, Vaulx-en-Velin: Les éditions des mondes à faire, 2020.
[1764] DisHuman, « DisHuman Manifesto ».
[1765] Voir Dan Goodley, *Dis/ability Studies: Theorising Disablism and Ableism*, Londres et New York : Routledge, 2014. En français, le concept de *disability* est généralement traduit par celui de « handicap », si bien que l'intervention formelle de Goodley ne peut être rendue en français qu'en traduisant le concept de manière littérale.
[1766] Kirsty Liddiard et al., « A DisHuman Manifesto: Project DisHuman, UK », in Katie Ellis et al. (dir.), *Manifestos for the Future of Critical Disability Studies: Volume 1*, Londres et New York : Routledge, 2019, p. 158. Traduction personnelle.

La notion de « dis/capacité » renvoie ainsi aux reconfigurations actuelles de la capacité et du handicap dans la condition posthumaine (ou posthumaniste), où les nouvelles technologies peuvent parfois transformer les personnes handicapées en individus hyper-capables, faisant du sujet déshumanisé et prétendument moins-qu'humain une forme d'hyper- ou de surhumain. Ainsi, le site web du projet *DisHuman* note que le concept de « dis/capacité désarme, perturbe et remet en question de manière utile les hypothèses normatives, considérées comme acquises et profondément ancrées dans la société, sur ce que signifie être humain et ce que signifie être capable (dis/humain). Par exemple, nous voulons nous interroger sur l'impact du handicap sur les catégories humaines normatives typiques et courantes que sont l'adulte, le jeune et la famille »[1767].

Dans cette thèse, j'élargis le concept du « dishumain » en suggérant que les réflexions sur l'humain au XXe siècle impliquaient déjà le handicap, bien qu'indirectement. Dans les trois chapitres qui constituent la partie I, je démontre la place centrale du handicap – à travers l'autisme – dans les conceptions philosophiques de l'humanité et de l'animalité chez Uexküll, Goldstein et Gehlen, ainsi que leurs implications pour (et leurs liens avec) les politiques relatives au handicap, à la race, à la classe sociale, au genre, à l'espèce, etc. Dans ces textes, que je considère comme représentatifs d'une modernité dishumaine, le handicap a toujours été présent et inextricablement lié aux discussions sur le vivant, l'animalité et l'humanité, même lorsqu'il était rendu invisible et activement effacé ou rejeté.

Comme le montre clairement ce dernier argument, je ne limite pas mes réflexions à l'humain. Conformément à l'orientation spécifique de cette thèse sur l'animalité, j'étends mes analyses à ce que Michael Lundblad a appelé la disanimalité, à savoir l'idée que des formes uniques de frictions et d'affects conflictuels émergent à la confluence du handicap et de l'animalité (voir chapitre 4). Je montre ainsi que la modernité dishumaine qui s'est déployée dans le monde germanophone au cours du XXe siècle est également une modernité disanimale. Cela signifie que non seulement les personnes handicapées sont régulièrement déshumanisées et animalisées par ces perspectives, mais plus largement, que la réflexion sur l'animal qui a eu lieu dans ces contextes historiques a toujours impliqué une réflexion (au moins implicite) sur le handicap.

Cherchant à examiner la modernité dishumaine et disanimale qui est reflétée (et peut-être reconfigurée) dans ces théories, mon argument principal dans la partie I est que la figure de l'autiste cristallise des tensions internes fondamentales de la modernité occidentale en lien avec la dis/capacité. Les conceptions de l'humain et de l'animal développées au cours du XXe

[1767] DisHuman, « DisHuman Manifesto – Elaboration », consulté le 14 décembre 2025. https://web.archive.org/web/20160330115101/http://dishuman.com/dishuman-manifesto-elaborated-version/. Trauction personnelle.

siècle ont en effet véhiculé des tropes de dis/harmonie, dés/ordre et dys/fonctionnement [*dis/ease*], qui ont également été appliqués à l'autisme. En d'autres termes, les représentations pathologisantes de la capacité et du handicap, de la neurotypie et de la neurodivergence ont été au cœur des constructions modernes de l'humain et de l'animal.

Dans ces constructions philosophiques et scientifiques, les deux pôles qu'occupent les approches dishumaine et disanimale sont souvent imbriqués. Cela s'explique par le fait que l'humain a été historiquement défini par opposition à l'animal, et inversement. À cet égard, il n'est pas surprenant que les métaphores et les figures de dis/capacité appliquées à l'un apparaissent également – bien que souvent par la négative – chez l'autre. La possibilité de penser ensemble les figures du (dis)humain et du (dis)animal de cette manière, ne serait-ce que de manière oppositionnelle, découle selon moi de la continuité ontologique entre l'humanité et l'animalité. C'est en effet parce que la disharmonie, le désordre et le dysfonctionnement font partie de la « nature » de l'humanité et de l'animalité – ou plutôt de l'humanité *en tant qu'*animalité, comme je le soutiens – que les figures de la dishumanité et de la disanimalité peuvent être simultanément rapprochées et séparées.

Les théories que j'examine dans la partie I offrent des points de vue contrastés sur la dis/capacité, ancrés dans différentes conceptions de ce que signifie être humain ou animal. Cependant, toutes trois incarnent un sentiment de dualité ou d'ambiguïté où les figures de l'harmonie, de l'ordre et du fonctionnement normal coexistent avec celles de la disharmonie, du désordre et du dysfonctionnement. L'autisme, en tant que reflet posthumain (ou posthumaniste) de l'air du temps et instrument malléable au service du (néo)humanisme, constitue l'une de ces figures : traditionnellement considéré comme une maladie ou un trouble, il a également été mobilisé par (ou associé à) ces théories comme une figure d'harmonie essentielle, de monadisme inhérent ou de stabilité naturalisée. Riche en dualités, il constitue un exemple parfait de modernité dishumaine, où les conceptions humanistes traditionnelles sont associées à des approches néohumanistes et posthumanistes.

Pour mettre en évidence le champ de dualité qui imprègne les conceptions modernes de l'humanité et de l'animalité, j'élargis l'usage de la barre oblique par Dan Goodley dans dis/capacité en appliquant cette barre oblique à d'autres régimes de dishumanité et de disanimalité : « dis/harmonie », « dés/ordre » et « dys/fonctionnement ». Cela me permet de mettre en évidence la place centrale occupée par le handicap, la maladie et la vulnérabilité en général – en tant que figures d'altérité constitutive refoulées – dans la conception moderne de l'humain. Dans la deuxième partie de la thèse, je développe cette idée en démontrant que l'animalité (autiste) et les animaux·ales non humain·es ont également joué le rôle d'autres constitutifs dans les représentations humaines (et humanistes) de l'autisme.

Cette approche déconstructionniste – ou plutôt *dis*constructionniste – me permet d'esquisser un nouvel horizon pour notre modernité dishumaine, dans lequel le trouble [*disorder*] (autistique) peut être réhabilité en tant que composante essentielle de la condition post/humaine (ou posthumaniste), parallèlement à l'idéal communément affirmatif de l'ordre. En plus de mettre en évidence le rôle que le handicap a joué (via l'autisme) dans les philosophies post/humanistes de l'humain et de l'animal, je suggère que ces théories peuvent apporter un éclairage nouveau sur l'autisme, le handicap et la neurodivergence lorsqu'elles sont lues à travers le prisme du dishumanisme.

Dans la deuxième partie de cette thèse, je démontre que des formes plus traditionnelles de pathologisation dishumaine et disanimale continuent d'imprégner les champs sociaux contemporains des études de la neurodiversité et du militantisme neurodivergent. À cet égard, bien qu'elles soient porteuses d'un héritage humaniste et capacitiste qui demande à être interrogé, les philosophies post/humanistes examinées dans la partie I de la thèse peuvent également servir d'antidotes aux logiques plus anciennes et tout aussi problématiques du mécanicisme et du réductionnisme, parmi d'autres dispositifs d'oppression (dis)humaniste. Suivant l'affirmation de Goodley et Runswick-Cole selon laquelle « le "dis", c'est le trouble » [*to dis is to trouble*], le cadre dishumaniste déployé dans la partie I servira de base aux approches posthumanistes de l'autisme et de l'animalité comme sites de production du trouble [*troubling*] dans la partie II.

Lectures parasitaires

Afin de mettre en évidence la disconstruction de l'humanisme et les multiples axes de tension qui imprègnent notre modernité dishumaine, je développe la méthode interprétative des lectures parasitaires. Inspirées de la philosophie posthumaniste du parasitisme de Michel Serres (voir chapitre 1), ces lectures avancent que l'humanisme est fondamentalement parasitaire : il se nourrit de celleux qu'il classe comme in-, sub- et non-humains (ses « autres constitutifs ») pour établir et consolider la position de l'humain typique. Bien sûr, une telle opération doit rester invisible si elle veut produire les effets souhaités, ce qui signifie que les différents axes de l'altérité constitutive (la race, la classe, le genre, la capacité, l'espèce, etc.) doivent être activement réprimés et effacés de la conception moderne de l'humain.

Afin de souligner ces tensions inhérentes et les doubles mouvements d'inclusion/exclusion à l'œuvre dans les théories philosophiques de l'humanité et de l'animalité étudiées dans la partie I, je montre que les généalogies de l'autisme et du posthumanisme développées à partir de ces philosophies post/humanistes sont des histoires de lectures

parasitaires. Plus précisément, la mobilisation (ou l'introduction) de figures dishumaines et disanimales dans ces philosophies, ainsi que le développement d'approches posthumanistes fondées sur des traditions apparemment (néo)humanistes, s'appuient sur des gestes de récupération conceptuelle et politique qui sont souvent restés invisibles. Concrètement, cela signifie que le mouvement par lequel les philosophies d'Uexküll, de Goldstein et de Gehlen sont de plus en plus revendiquées comme précurseurs du posthumanisme, des études du handicap ou des études de la neurodiversité s'est appuyé sur l'effacement des tensions plutôt que sur leur reconnaissance ou leur perlaboration.

En ce qui concerne l'autisme, je tente de mettre en évidence et de dénaturaliser la construction dis/capacitiste des philosophies post/humanistes : cela implique d'examiner les effets concrets de la métaphore de l'autisme lorsqu'elle est appliquée à des théories philosophiques et scientifiques de l'humanité et de l'animalité. Quelles sont les implications de la métaphore de l'autisme dans les philosophies post/humanistes pour notre compréhension de l'animalité, et comment cela se reflète-t-il dans notre compréhension de l'autisme ? Il est bien connu que la déshumanisation et l'animalisation ont joué un rôle central dans l'oppression des groupes humains minorisés tels que les personnes autistes (voir chapitre 4), et la figure de l'autiste est souvent associée à des représentations pathologisantes du rapport des humain·es au non-humain dans la science et l'imaginaire collectif. Quels types de représentations de l'autisme et de l'animalité sont véhiculés et consolidés par l'usage de métaphores animales pour représenter l'autisme et de métaphores autistiques pour décrire l'animalité ?

Être à l'écoute des bruits parasites qui imprègnent mon corpus et, plus largement, la modernité occidentale me permettra de démontrer leur répression du handicap et plus particulièrement de l'autisme. Cela m'aidera non seulement à mieux comprendre les théories d'Uexküll, de Goldstein et de Gehlen, mais aussi à tracer une généalogie posthumaniste critique du discours sur l'autisme. Comment les conceptions traditionnelles de l'autisme (comme trouble [*disorder*], handicap ou neurodivergence) dans la modernité occidentale sont-elles constituées par des formes implicites de représentation anthropocentrique, humaniste et spéciste ? La réponse à cette question me permettra de jeter les bases de mon analyse de la co-construction du spécisme et de la neuronormativité dans la partie II et de souligner l'urgence d'une perspective posthumaniste dans les études de la neurodiversité.

Si l'on admet que des logiques dishumaines et disanimales sont présentes tant dans les philosophies humanistes que posthumanistes, il devient urgent de retracer une généalogie croisée du posthumanisme et du discours sur l'autisme. Comment comprendre le fait que l'autisme soit mobilisé dans des constructions théoriques visant à interpréter la pensée (néo)humaniste d'Uexküll, Goldstein et Gehlen de manière posthumaniste ? Quels types de lectures parasitaires sont nécessaires pour que les aspects discutables de ces philosophies (par

exemple, l'élitisme, le capacitisme, le spécisme, le racisme, le sexisme, le conservatisme, etc.) soient non pas refoulés, mais surmontés ?

Les théories que j'examine dans la première partie sont impliquées dans diverses formes de pensée et de politique réactionnaires, d'un conservatisme voisin du nazisme à des formes alternatives – et seulement en apparence critiques – d'engagement avec le paradigme de la pathologie. Cependant, à travers les diverses lectures parasitaires dont elles ont fait l'objet dans la philosophie du XXe siècle et la pensée contemporaine, ces philosophies ont vu leurs fondations troublantes être de plus en plus oubliées et reléguées au second plan. En retraçant l'histoire de ces lectures parasitaires, j'espère déconstruire les généalogies (seulement en apparence) innocentes d'Uexküll, Goldstein et Gehlen en tant que penseurs proto-posthumanistes. Suivant la perspective du posthumanisme critique, je suggère qu'il ne suffit pas, pour déconstruire l'humanisme, de relire la pensée humaniste de manière posthumaniste (quoique cela veuille dire), mais qu'il est également nécessaire de savoir répondre des gestes parasitaires qui rendent ces lectures possibles en premier lieu.

Comme le note judicieusement Herbrechter, « on peut donc dire que le PHC [posthumanisme critique] est "parasitaire" dans sa relation aux divers humanismes qu'il habite de manière déconstructive »[1768]. On le sait bien, être *contre* quelque chose exige souvent de se tenir *tout contre*. La critique de l'humanisme ne fait pas exception. Dépasser l'humanisme, comme le posthumanisme critique cherche à le faire, implique de « retravailler, critiquer, déconstruire, réécrire »[1769] sa logique même ou, comme le dirait peut-être Donna Haraway, de vivre avec son trouble. Néanmoins, ce travail ne devrait pas être accompli selon la logique humaniste de la maîtrise intellectuelle et de l'appropriation sélective, ni sans prêter attention au constat troublant selon lequel on risque toujours d'être parasité·e par les théories mêmes que l'on tente de s'approprier de manière parasitaire. À ce mythe de l'innocence ou de la pureté de la lecture, je substituerais la non-innocence des lectures parasitaires, où les caractéristiques problématiques d'une théorie ne peuvent jamais être isolées une fois pour toutes, mais doivent au contraire être continuellement interrogées et travaillées.

Pour établir une telle généalogie parasitaire des philosophies post/humanistes, il nous faut mettre l'accent sur les évolutions et les ruptures dans la pensée, les utilisations indisciplinées et dés/ordonnées des théories, qui trahissent et contredisent les généalogies linéaires de la propriété intellectuelle. Ces généalogies troublées posent des questions critiques sur le posthumanisme : et si la philosophie posthumaniste avait hérité depuis le départ des conceptions humanistes et néohumanistes du handicap, ne serait-ce qu'en silence, sans en dire un mot ?

[1768] Herbrechter, *(Un)learning to Be Human?*, p. 15.
[1769] *Ibid*., p. 14.

Un usage plus explicite des lectures et généalogies parasitaires peut nous aider à mieux tirer parti des philosophies (néo)humanistes et à construire des contre-généalogies plus efficaces de la pensée post/humaniste et dishumaniste. À cet égard, au-delà de ses objectifs déconstructifs et critiques, mon approche parasitaire de la lecture d'Uexküll, Goldstein et Gehlen s'aventure dans le domaine de la récupération partielle et stratégique. Que pouvons-nous apprendre en restant dans les zones de contact théoriques et les terrains politiquement chargés générés par l'insertion de l'autisme dans les philosophies post/humanistes ? Je suggère, avec le parasite serresien, qu'il existe un potentiel radical dans la négativité du dishumain et du disanimal : en tant que figures de la disharmonie, du désordre, du dysfonctionnement, les parasites (sociaux et biologiques) remettent en question la répression constitutive du handicap dans la pensée humaniste et, par extension, la conception capacitiste de l'humain. En d'autres termes, en mettant l'accent sur la condition inhérente de discapacité chez les humains et les animaux et sur le potentiel parasitaire de l'animalité autiste, nous pouvons résister aux effets destructeurs de la dishumanité et de la disanimalité et ouvrir la voie à leur célébration véritable.

Un autre aspect important de ma méthodologie concerne la littérature elle-même. Il serait par moments inapproprié de décrire mes lectures parasitaires comme des lectures de l'autisme au sein des philosophies post/humanistes, puisque l'un de mes auteurs (Jakob von Uexküll, chapitre 1) écrivait avant que la catégorie d'autisme soit formulée, tandis qu'un autre (Arnold Gehlen, chapitre 3) ne s'est tout simplement pas intéressé à l'autisme dans ses travaux. Kurt Goldstein (chapitre 2) fait figure d'exception, car il a travaillé directement sur l'autisme, bien que de manière marginale et à la fin de sa carrière.[1770] De même, si la figure de l'autisme a été utilisée pour décrire la théorie de l'Umwelt et la théorie du *Mängelwesen* dans des travaux de recherche contemporains, de telles lectures restent surtout métaphoriques, et l'idée selon laquelle l'autisme lui-même peut être trouvé dans ces théories est le fruit de ma propre intervention. Il serait donc plus approprié de parler de lectures parasitaires de l'autisme *à travers* les philosophies post/humanistes.

Par définition, une telle lecture comporte un risque d'anachronisme, associé au risque de renforcer les idées autismophobes et pathologisantes. Il y a un risque à associer l'autisme à des idées potentiellement offensantes telles que la théorie de Gehlen selon laquelle l'être humain est un être déficient. Cependant, mon objectif ici n'est pas tant d'*appliquer* ces philosophies post/humanistes à l'analyse de l'autisme, mais plutôt de (ré)introduire, récupérer ou revendiquer les perspectives autistes comme moyen de perturber, déconstruire et subvertir ces philosophies elles-mêmes. Ainsi, lorsque je parle de lectures parasitaires de l'autisme à travers les philosophies post/humanistes, je décris un geste herméneutique qui pourrait être assimilé à

[1770] Ceci est réitéré au chapitre 6 à travers une lecture parasitaire plus succincte de la théorie éthologique de l'autisme de Niko et Elisabeth Tinbergen.

la généalogie foucaldienne : une lecture historique du passé du point de vue du présent, qui cherche en fin de compte à ouvrir de nouveaux horizons pour l'avenir[1771]. Je m'intéresse ainsi à la question de savoir si la lecture des philosophies post/humanistes du point de vue de leurs autres constitutifs (les handicapé·es, les autistes, les animaux·ales) peut nous aider à développer des perspectives plus nuancées sur le handicap, la neurodiversité et l'animalité.

Enfin, comme je l'ai déjà mentionné, mon choix d'Uexküll, Goldstein et Gehlen comme objets de mes lectures dans la partie I est motivé par ce que je perçois comme des potentiels parasitaires : la biologie philosophique, l'éthologie philosophique et l'anthropologie philosophique germanophones sont peu connues dans les contextes anglophones et se prêtent donc à des lectures parasitaires qui ne sont pas encore surdéterminées par des cadres historiographiques rigides. Ces approches philosophiques ont également abordé directement le problème du national-socialisme, ce qui en fait un objet d'étude privilégié pour examiner la modernité politique européenne en relation avec les questions de handicap et de dés/ordre [*dis/order*].

[1771] Sur la généalogie chez Foucault, voir Michel Foucault, « Nietzsche, la généalogie, l'histoire », in *Dits et écrits II : 1976-1988,* Paris, Gallimard, 1994, pp. 136–156.

PARTIE II – VERS UN TOURNANT PLUS-QU'HUMAIN ET PLUS-QUE-NEUROLOGIQUE DANS LES ETUDES DE LA NEURODIVERSITE

INTRODUCTION : L'ANIMALITÉ COMME AUTRE CONSTITUTIF DE LA NEURODIVERSITÉ

Généalogies de l'animalité dans les études de la neurodiversité

Sous quelles formes et sous quels signes l'animalité est-elle mobilisée (ou rendue invisible) en lien avec l'autisme aujourd'hui ? Tandis que la première partie examinait les représentations dishumaine et disanimales du handicap (autiste) dans les philosophies post/humanistes du XXe siècle, la deuxième partie s'intéresse à des travaux de recherche contemporains qui se concentrent explicitement sur l'autisme et la neurodiversité. À cet égard, bien que l'imbrication entre handicap et animalité ait déjà été minutieusement cartographiée et examinée dans les études (critiques) du handicap, et bien que cette littérature soit présentée et discutée au chapitre 4, elle ne constitue pas le cadre épistémologique principal de la partie II, pas plus que le handicap ne constitue le principal instrument d'analyse mobilisée ici.

Afin de développer des arguments axés spécifiquement sur l'autisme, les trois chapitres qui suivent s'appuient principalement sur les études (critiques) de la neurodiversité et, dans une moindre mesure, sur les études critiques de l'autisme. Le champ des études critiques de l'autisme, qui s'est développé dans les années 2010, a fait considérablement avancer la clarification de la construction sociale, culturelle, scientifique et politique de l'autisme dans les sociétés occidentales. Il est mobilisé dans cette partie de la thèse dans le cadre d'études de cas situées axées sur le rôle du discours neurologique dans les communautés autistes et neurodivergentes (chapitre 5) et la médicalisation de l'autisme à travers des modèles animaux (chapitre 6). D'importants travaux dans ce champ d'études ont commencé à examiner l'intersection entre l'autisme et l'animalité. Cependant, ces contributions sont restées marginales et n'ont pas conduit à la consolidation d'un champ de recherche ou d'une approche théorique, du moins pas de la même manière que les perspectives crip en études animales se sont popularisées ces dernières années. De plus, cette intersection semble avoir été surdéterminée par la figure controversée de Temple Grandin, une ingénieure autiste spécialisée

dans l'élevage qui en est venue à occuper une position de représentation quasi monopolistique sur ce sujet. Il était naturellement inenvisageable d'écrire une thèse de doctorat sur l'autisme et l'animalité sans aborder les travaux de Grandin, mais j'ai cherché à recadrer cette discussion autour de l'éthique des relations entre humain·es et animaux·ales dans l'autisme, notamment à travers une lecture croisée de Dawn Prince-Hughes (chapitre 4).

Plus précisément, la partie II tente d'apporter une contribution nouvelle à l'étude scientifique de cette intersection en soulignant l'urgence à développer des perspectives issues des études critiques de la neurodiversité. En effet, ce champ d'étude n'a pas encore abordé explicitement les questions liées à l'animalité. Pourquoi, contrairement aux études du handicap et aux études critiques de l'autisme, les études de la neurodiversité n'ont-elles pas été le terrain d'efforts soutenus pour interroger et combattre le spécisme ? Est-ce uniquement dû à la relative nouveauté du champ, ou y a-t-il une raison plus profonde ? Pourquoi les efforts contemporains visant à articuler l'autisme et l'animalité, par exemple dans les études animales critiques latino-américaines (voir chapitre 4), s'inscrivent-ils principalement dans le cadre des études du handicap ? En appelant à un tournant plus-qu'humain dans les études de la neurodiversité tout au long de la partie II, mon objectif n'est pas seulement d'appeler à une attention plus soutenue aux questions d'animalité dans ce champ d'études, mais aussi de proposer des discussions plus explicites et plus réflexives sur les conséquences conceptuelles et politiques du rapport au plus-qu'humain qui se déploie actuellement dans ce champ d'études. En d'autres termes, l'idée d'un tournant plus-qu'humain n'est pas seulement une projection dans l'avenir, mais fonctionne également comme un geste rétrospectif. À cet égard, l'un des arguments centraux de la partie II est que les conceptualisations existantes du plus-qu'humain dans les études de la neurodiversité (ou l'absence de celles-ci) ont conduit à positionner l'animalité comme un autre constitutif de la neurodiversité.

Comment la neurodiversité a-t-elle été mobilisée pour soutenir ou rejeter les efforts politiques contemporains visant à lutter contre le spécisme anti-animal, et comment différents cadres de pensée plus-qu'humains (parfois implicites) ont-ils contribué à ces positions théoriques et politiques ? Quels types d'effets découlent de l'approche de ces débats à travers les humanités environnementales, les études animales critiques ou les études de l'animalité, le posthumanisme (transféministe et queer) ou la figure même du « plus-qu'humain » ? Non seulement ces différents cadres de pensée ont un impact sur nos conceptualisations du plus-qu'humain, mais ils découlent également de notre compréhension de l'autisme et de la neurodivergence, et les transforment peut-être.

Pour refléter ces logiques, la partie II examine la relation entre les conceptualisations (historiques et contemporaines) de la neurodiversité et les sciences de la vie. Étant donné que le mouvement de la neurodiversité s'est historiquement appuyé sur une analogie avec la

biodiversité (chapitre 4) et sur un engagement profond dans le discours neurologique (chapitre 5), il semble que les sciences de la vie constituent un terrain très instructif pour interroger le rôle que l'animalité a joué (ou plutôt n'a pas joué) dans le développement des études de la neurodiversité. Une telle entreprise réflexive et généalogique semble d'autant plus urgente que la biodiversité et la neurologie apparaissent comme des motifs omniprésents mais incontestés dans les communautés neurodivergentes, voire même comme des sources de vérités supposées innocentes et fondamentales.

Afin de retracer la généalogie du rôle de l'animalité dans les études de la neurodiversité et le mouvement du même nom, les trois chapitres qui constituent la partie II posent des questions critiques concernant l'onto-épistémologie et l'éthico-politique de la neurodiversité : Comment la neurodiversité s'est-elle imposée comme une forme de biodiversité sans animaux·ales non humain·es (chapitre 4) ? Comment la neurologie peut-elle fonctionner à la fois comme substrat ontologique et matériel (présumé) de l'animalité et comme appareil discursif et politique qui rejette les animaux·ales non humain·es et les humain·es autistes en dehors du champ de l'humanité typique (chapitre 5) ? Comment ces deux types de discours ont-ils été mobilisés pour fonder et justifier des formes spécifiquement neurodivergentes de spécisme anti-animal, ou ce que j'appellerai le spécisme neurodivergent ?

Ces observations m'amènent à proposer ce que l'on pourrait appeler un tournant plus-qu'humain et plus-que-neurologique dans les études de la neurodiversité. Comment une vision différente de l'animalité et de la neurodivergence, fondée sur des cadres onto-épistémologiques alternatifs, peut-elle favoriser des coalitions plus équitables entre les communautés neurodivergentes et les animaux·ales non humain·es, ainsi que des approches spécifiquement neurodivergentes de l'antispécisme, telles que le véganisme neurodivergent (chapitre 4) ? L'approche de l'animalité développée dans la partie II s'appuie en particulier sur l'éthologie philosophique, une méthode holistique, expansive et phénoménologique pour rendre compte de l'ontologie de l'animalité. Cela suggère une généalogie alternative de la neurodiversité, enracinée dans l'éthologie : comment les logiques spécistes et neuronormatives ont-elles été mobilisées en éthologie, et comment cette dernière peut-elle être reconfigurée pour permettre une libération conjointe des animaux·ales non humain·es et des personnes autistes ? Comment un cadre de pensée éthologique peut-il nous aider à sortir des impasses de la neurodiversité comme biodiversité anthropocentrée et comme neurocentrisme (chapitre 6) ?

Cette généalogie alternative implique un engagement direct et un soutien aux efforts actuels en faveur des études critiques de la neurodiversité, animés par une pratique d'autoréflexivité et de réorientation itérative. Ainsi, tracer une généalogie critique du rôle joué par l'animalité dans les études de la neurodiversité ne signifie pas que les logiques spécistes sont spécifiques à ce champ d'études (par comparaison avec les études du handicap, les études critiques de l'autisme ou à tout autre champ d'études), ni que celles-ci sont insurmontables. Cela suggère plutôt que des effets spécistes et déshumanisants involontaires découleront nécessairement d'orientations humanistes non remises en question dans des sociétés spécistes et neuronormatives. Ainsi, la dishumanité et la disanimalité ne sont ni des problèmes universels qui découleraient automatiquement de la rencontre entre l'autisme et l'animalité, ni des obstacles accidentels sur le chemin de la libération neurodivergente, et encore moins des tares individuelles résultant de l'hostilité des communautés neurodivergentes à l'égard des politiques de l'animalité. Cette dernière explication est d'autant plus improbable que le lien entre les humain·es autistes et les animaux·ales non humain·es est souvent décrit comme particulièrement profond (chapitre 4). Les défis liés à la dishumanité et à la disanimalité s'expliquent plutôt comme le produit des conditions socio-historiques dans lesquelles elles apparaissent : à savoir, la co-construction du spécisme et de la neuronormativité dans les sociétés capitalistes occidentales. Plus qu'une tentative de disqualifier les études de la neurodiversité ou leurs fondements, mon objectif est d'adopter la perspective de leur expansion radicale.

Cela renvoie à l'argument central de cette thèse, à savoir l'idée d'une co-construction de l'autisme et de l'animalité due à l'enchevêtrement structurel du spécisme et de la neuronormativité. Ceci est démontré tout au long de la partie II par diverses études de cas centrées sur les pratiques scientifiques et les cadres onto-épistémologiques qui produisent ou reconfigurent simultanément l'autisme et l'animalité. Par exemple, bon nombre des régimes scientifiques qui déshumanisent, pathologisent et médicalisent les personnes autistes – tels que le neuroréductionnisme mécaniciste (chapitre 5) et le behaviorisme (chapitre 6) – s'avèrent être des développements ultérieurs de traditions de pensée anthropocentrées et humanistes antérieures ou des applications de cadres de pensée initialement développés sur des animaux·ales non humain·es.

Ce rapprochement forcé entre les humain·es autistes et les animaux·ales non humain·es témoigne de l'imbrication profonde du spécisme et de la neuronormativité, en particulier dans les sociétés humanistes, qui conditionnent l'appartenance à l'humanité (typique) au respect des attentes spécistes et neurotypiques (chapitre 4). Cela suggère que les ambitions politiques visant

à humaniser l'autisme et les personnes autistes, qui s'appuient sur une grammaire politique humaniste des droits humains, de la dignité humaine et de l'exceptionnalisme humain, ont tendance à négliger le rôle central joué par l'humanisme anthropocentrique dans la neuronormativité. En légitimant les technologies et les dispositifs de pouvoir qui ont contribué au développement du spécisme anti-animal, le mouvement de la neurodiversité risque de mettre ces logiques au service de la déshumanisation des personnes neurodivergentes elles-mêmes.

Cela est particulièrement visible dans les différents contextes où l'animalité et les animaux·ales non humain·es sont considéré·es comme des formes d'« altérité significative » de l'autisme, pour parler comme Donna Haraway : alors que de nombreuses personnes autistes affirment entretenir des relations fortes avec les animaux·ales non humain·es, ces dernier·es sont souvent réduit·es à un rôle de soutien émotionnel ou de guides vers une meilleure compréhension de la socialité humaine (chapitre 4). Alors que les communautés autistes projettent sans cesse des traits autistiques sur les animaux·ales non humain·es et que les scientifiques spécialisé·es dans l'autisme mobilisent des modèles animaux pour développer de nouvelles connaissances scientifiques sur l'autisme chez les humains, l'idée d'un autisme animal (ou de la neurodivergence animale) reste dans les deux cas une simple métaphore (chapitre 6).

Pour contrer cette réduction de l'animalité à un rôle d'altérité constitutive, la deuxième partie de cette thèse met en évidence le potentiel subversif et radical qui s'active lorsque les personnes autistes revendiquent leur animalité. Je soutiens que cette perspective antispéciste-posthumaniste permet non seulement de nouvelles formes de coalition neurodivergente avec les mouvements animalistes et d'alliance avec les animaux·ales non humain·es, mais qu'elle constitue également l'horizon le plus stratégique pour la politique neurodivergente elle-même : ce n'est qu'en s'attaquant à l'imbrication profonde de la neuronormativité et du spécisme *au sein de* l'humanisme que le mouvement de la neurodiversité pourra véritablement réaliser son ambition initiale de déconstruire la suprématie de l'humain (neuro)typique. Ainsi, bien que cette thèse soit principalement centrée sur l'autisme, les conclusions présentées dans la partie II sont applicables dans le cadre plus large des études de la neurodiversité et de la politique neurodivergente.

Cette approche critique, située à l'intersection de l'antispécisme et de la neurodiversité, envisage une profonde reconfiguration de la politique neurodivergente, qui ne peut plus se permettre d'ignorer la question de l'animalité. L'horizon antispéciste-posthumaniste envisagé dans la partie II pour la neurodiversité se concrétise dans le chapitre 6 par l'éthodiversité, un cadre de pensée qui replace la neurodiversité dans une ontologie et une politique queer et posthumaniste de l'animalité. S'il est vrai que la neuronormativité repose sur un idéal anthropocentrique d'humanité typique, alors revendiquer sa propre (hum)animalité divergente

– à travers la thérianthropie ou ce que j'appelle l'éthodivergence (chapitre 6) – peut permettre d'opérer une déconstruction conjointe du spécisme et de la neuronormativité.

Semer le trouble dans le tournant plus-qu'humain : vers une critique antispéciste-posthumaniste

La perspective sur le posthumanisme qui se déploie dans la partie II repose sur une méthodologie en partie différente de celle proposée dans la partie I. En effet, alors que la partie I s'est livrée à une déconstruction et à une interrogation du post/humanisme, la partie II propose une mobilisation (et une critique) déterminée du posthumanisme. Cette distinction est peut-être mieux illustrée par l'idée que l'engagement en faveur d'une politique antispéciste et de la libération neurodivergente justifie le passage de la théorie ou de la philosophie seules à l'action radicale. De cette manière, la partie II passe d'une lecture déconstructiviste à des interventions théoriques et politiques situées (mais jamais innocentes).

Tout en revendiquant une perspective posthumaniste, mon objectif ici est de remettre en question, ou plutôt de *semer le trouble*, le rapport du posthumanisme avec la non-innocence et l'hyper-relationnalité. Pour clarifier cette intention, il est utile de se pencher sur les travaux de Donna Haraway. Le dernier ouvrage de Haraway, *Vivre avec le trouble*, s'ouvre sur une discussion des « temps troublants et troublés »[1772] que nous vivons sur la Terre, une référence explicite à la crise écologique Le terme même de « trouble », dont Haraway retrace l'origine dans l'ancien français, signifie « "remuer", "obscurcir", "déranger" »[1773]. Il renvoie aussi bien aux troubles à l'ordre public qu'à la perte des repères et la désorientation (théorisée par exemple par Sara Ahmed[1774]), qui requièrent que nous développions de nouvelles manières de penser et d'agir, que nous habitions les tours et les détours de la pensée et du « faire-monde [*worlding*] » avec les autres bestioles terrestres.

Dans cet ouvrage, Haraway mobilise à plusieurs reprises la figure de la « non-innocence », qui renvoie à une déconstruction du trope religieux de la culpabilité humaine consécutive au péché originel, un trope qui continue de se matérialiser dans les sociétés contemporaines (y compris dans des mouvements politiques tels que le féminisme et, comme je le montre, la neurodiversité) sous la forme d'une quête d'innocence, de pureté et de salut (voir chapitres 4 et 5). En appelant à la non-innocence face aux problèmes écologiques, Haraway cherche à résister à la tentation de revenir à un état de nature pré-culturel et pré-technologique, souvent décrit en

[1772] Haraway, *Vivre avec le trouble*, p. 7.
[1773] *Ibid.*
[1774] Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others*, Durham et Londres : Duke University Press, 2006.

des termes théologiques de pureté et de salut. Au contraire, elle appelle à s'investir dans le trouble de nos relations avec les êtres humains et non humains sur la planète.

Le cadre de pensée principal de Haraway, la relationnalité multispécifique – c'est-à-dire le champ des relations entre espèces – est troublant dans sa propension à soutenir l'exploitation animale. La relationnalité multispécifique constitue l'un des objets principaux du posthumanisme féministe, auquel Haraway contribue si grandement bien qu'elle ne s'en revendique pas. Si le *Manifeste cyborg* développait avant tout une figure de l'hybridité (entre l'humain et le non-humain, l'organique et le technologique, etc), le *Manifeste des espèces compagnes* et *Vivre avec le trouble* explorent davantage celle de la relation entre les êtres. Qu'il s'agisse de la question de la parenté multispécifique, celle de la biologie symbiotique ou celle de notre façonnement par les nouvelles technologies, l'enjeu est d'explorer les nouvelles manières de faire relation entre espèces pour générer des espaces de récupération écologique.

Plus encore, dans *Vivre avec le trouble*, la relationnalité multispécifique acquiert une dimension ontologique. Avec le concept d'intra-action, développé par læ physicien·ne féministe Karen River Barad, Haraway s'intéresse ainsi à des « relations constitutives » qui précèdent l'individuation plutôt qu'elles ne lui succèdent[1775]. Autrement dit, la relation, plutôt que l'individu, en vient à être considérée comme la plus petite unité d'analyse possible. La notion d'espèce, traditionnellement définie en circuit fermé, est ainsi décentrée au profit de celle d'espèces compagnes, nécessairement pensée au pluriel, c'est-à-dire sous un angle *multispécifique* (voir chapitre 6). S'il est vrai que chaque individu ou chaque espèce n'existe que parce qu'elle est relation avec d'autres, alors son devenir nous apparaît inextricablement lié à celui de ses compagnons. La relationnalité multispécifique témoigne en ce sens d'enjeux aussi bien ontologiques qu'épistémologiques ou éthico-politiques.

Dans « Une pratique curieuse », le septième chapitre de l'ouvrage, Haraway décrit les pratiques de collaboration entre éleveur·euses humain·es et animaux·ales élevé·es dans les fermes non industrielles. Un éleveur témoigne : « Nous n'arrêtons pas de parler avec nos animaux »[1776]. Haraway perçoit dans cette pratique curieuse d'une respons(h)abilité humaine dans la mise au monde et dans la mise à mort des animaux un horizon éthique qu'elle juge inspirant. À ses yeux, cette pratique témoigne d'une capacité à répondre constamment aux autres non humain·es, à « viv[re], et [mourir], à leur côté »[1777] Il n'est pourtant pas clair pour moi que les éleveur·euses en viennent concrètement à mourir avec "leurs" animaux·ales, encore moins à être tué·es par elleux ou pour elleux.

[1775] Haraway, *Vivre avec le trouble*, p. 124.
[1776] *Ibid*., p. 278.
[1777] *Ibid*., p. 279.

Ce faisant, l'éthique de la respons(h)abilité développée par Donna Haraway s'inscrit dans un cadre théorique *nécessairement* relationnel. Si le fondement de l'éthique multispécifique réside dans la capacité à répondre à l'autre, il présuppose ainsi une proximité physique et affective entre humain·es et non-humain·es, et exclut par là même tout horizon d'abolition (de l'élevage ou du carnisme, notamment) ou de distanciation entre espèces[1778]. Il en va de même pour la symbiogenèse, qui, en positionnant la relationnalité biologique au fondement de l'évolution et de l'ontologie du vivant, vient justifier la consommation de la chair animale par les humains sur le plan de l'éthique. L'idée selon laquelle la proximité affective ou biologique entre les humain·es (autistes) et les animaux·ales non humain·es serait à l'origine d'un traitement plus éthique de ces dernier·es est reprise et critiquée dans le chapitre 4 de cette thèse.

La question de la relationnalité multispécifique, centrale dans l'appareil théorique de Donna Haraway, suscite pour cette raison les foudres des études animales critiques et des antispécistes, qui redoublent d'accusations toujours plus incisives sur la violence conceptuelle exercée par Haraway à l'encontre des animaux·ales non humain·es (voir chapitre 6). La proximité de Haraway avec les éleveur·euses anti-vegan (à l'instar de Jocelyne Porcher, qu'elle cite et remercie dans *Vivre avec le trouble*), et notamment avec leurs théories sur la collaboration avec les animaux d'élevage, lui attire également les bonnes grâces des penseur·euses du vivant. Celleux-ci trouvent en effet dans l'œuvre de Haraway un fondement théorique au poncif spéciste sur le cycle de la vie et de la mort, qui tente de justifier le carnisme à partir du constat qu'il existe de la violence dans la nature ou encore que les animaux se mangent entre eux.

Le rapport troublant de Donna Haraway à l'animalisme a depuis fait l'objet de critiques au sein même du champ des études posthumanistes féministes. Dans des commentaires récents sur l'œuvre de Haraway, la relationnalité multispécifique y est ainsi réévaluée[1779]. Elle apparaît non plus comme une simple observation onto-épistémologique – nous n'existons que par la relation – dont découlerait inévitablement un horizon éthique – comment mieux habiter nos relations avec les animaux – mais plutôt comme un lieu commun, une abstraction ontologique, une forme de modération politique ou encore la source d'une paralysie de l'action.

[1778] Pour une discussion de la distanciation entre humain·es et animaux·ales chez Gil Bartholeyns et Donna Haraway et une approche abolitionniste de l'élevage à partir de Haraway, voir Ombre Tarragnat, « Les communautés du compost de Donna Haraway à l'ère du Pathocène », in Denis Bertrand, Pauline Hachette et Everardo Reyes (dir.), *Existences collectives*, Fabula : les Colloques 2023. https://doi.org/10.58282/colloques.9949.

[1779] Voir Eva Haifa Giraud, *What Comes After Entanglement?: Activism, Anthropocentrism, and an Ethics of Exclusion*, Durham et Londres : Duke University Press, 2019 ; et Monika Rogowska-Stangret, « Relationality Inside-out: Revisiting the Relational Turn in Critical Posthumanities », in Aurore Franco-Ricord et Ombre Tarragnat (dir.), *Biological Relationalism: The Relational Turn in Contemporary Science, Theory, and Politics*, Cham : Springer, à paraître.

En effet, ce fétichisme de la relationnalité, comme j'aime à l'appeler, constitue chez Donna Haraway un horizon normatif qui tend presque à dissiper le trouble et à naturaliser l'exploitation animale. Eva Haifa Giraud regrette ainsi, dans *What Comes After Entanglement?*, que le constat d'une non-innocence de nos relations aux animaux, plutôt qu'un préalable pour discuter de la pertinence et des modalités de ces dernières, semble être devenu, dans la pensée posthumaniste, le point final de la conversation[1780]. Dans *Vivre avec le trouble*, déjà, Haraway reconnaît à demi-mot les limitations de son approche lorsqu'elle admet que « [s]on avidité d'histoires dans lesquelles des bestioles collaborent avec leurs humains me rend parfois aveugle aux aspérités et aux troubles incessants »[1781]. Cette observation, reléguée à une note de bas de page, ne la conduit pourtant jamais à réfléchir au-delà du paradigme éthico-onto-épistémologique de l'(hyper-)relationnalité, qui demeure l'horizon principal (sinon même l'horizon unique) de sa pensée.

Au-delà de cet aveu de non-innocence, notre engagement à vivre avec le trouble peut parfois nous troubler à tel point que nous ne sommes plus en mesure d'identifier les sources de trouble et les solutions potentielles. Dans ce contexte, le fait d'affirmer la non-innocence d'une situation ou d'une position théorique devient de plus en plus fréquemment un opérateur de dépolitisation. Évoquer la non-innocence est souvent devenu une façon de dire qu'une situation est si complexe qu'aucune solution idéale ne peut être trouvée. Bien que cette conclusion soit tout à fait entendable, il semble que la notion de non-innocence reflète également de plus en plus une disposition onto-épistémologique à plonger profondément dans un océan hyper-relationnel d'enchevêtrements plus-qu'humains dont il ne serait désormais plus possible de se désenchevêtrer ou de s'écarter. Cette tendance se reflète dans le fait que, bien que la théorie du réalisme agentiel de Karen River Barad laisse place à des gestes situés de « coupures agentielles », ce cadre de pensée est principalement mobilisé dans la pensée posthumaniste contemporaine pour souligner et célébrer la relationnalité. Cela suggère, selon Hollin et al., la nécessité d'un mouvement de « (dé)enchevêtrement de Barad »[1782].

Les différentes formes que prend aujourd'hui la notion de trouble dans la pensée posthumaniste illustrent également ce phénomène troublant : lorsque « vivre avec le trouble » signifie de plus en plus accepter le statu quo ou suivre une doxa, lorsque la déconstruction est mobilisée comme un instrument de normativité, lorsque la complexité devient une platitude, alors la philosophie posthumaniste a grand besoin d'une critique corrosive. Au lieu de mobiliser la non-innocence pour policer les voix dissidentes, je suggère donc que nous l'utilisions pour

[1780] Giraud, *What Comes After Entanglement?*, p. 202, n. 23.
[1781] Haraway, *Vivre avec le trouble*, p. 42.
[1782] Voir Gregory Hollin et al., « (Dis)entangling Barad: Materialisms and Ethics », *Social Studies of Science*, vol. 47, n° 6 (2017), pp. 918–941. https://doi.org/10.1177/0306312717728344.

amplifier les tensions politiques et expérimenter différentes positions politiques, dans un geste de prolifération radicale des significations, des pratiques et des subjectivités. Bien que cela ne nous rende pas innocent·es – nous continuerons certainement à causer du tort et à échouer en cours de route – ce troublement de la non-innocence nous permet d'être plus respons(h)abilité face à nos méfaits humains et humanistes, tout en poursuivants nos objectifs politiques. En d'autres termes, la non-innocence du « trouble multispécifique »[1783], comme l'appelle Haraway, ne devrait pas nous inciter à renoncer à l'horizon de le libération totale.

Tout au long de la partie II, cet horizon est matérialisé par une méthodologie consistant à verbaliser les problèmes. Plus qu'un nom – une situation ou un statu quo avec lequel nous devons apprendre à vivre ou à composer, comme le trouble animal (chapitre 4), le trouble dans l'humanisme (chapitre 4), le trouble neurologique (chapitre 5), le trouble dans l'espèce (chapitres 4 et 6), etc. –, le trouble devient un verbe : le fait de semer le trouble serait-il un meilleur moyen de dynamiser les situations problématiques, d'oser prendre des risques au milieu du chaos ? Non contente de (simplement) « vivre avec le trouble », la partie II propose de *semer le trouble* dans le posthumanisme et le tournant plus-qu'humain dans les études de la neurodiversité. À bien des égards, la méthode du semer-le-trouble développée dans ces chapitres fait écho à la pratique du *queering* : tout comme son proche parent, semer le trouble implique de perturber les cadres de pensée établis, de subvertir les normes hégémoniques, de faire proliférer les significations et les pratiques contre-normatives, et de revendiquer les signifiants et les positions dévalorisés.

En termes ontologiques et épistémologiques, vivre avec le trouble implique une forme de décentrage radical, dans lequel l'agentivité diffuse et transversale du texte ou du contexte pourrait remplacer l'action individuelle et l'autonomie décisionnelle du sujet humain. L'on pourrait parfois se demander s'il y a encore quelqu'un prêt à agir derrière cette approche. Qui (ou qu') est ce posthumain en devenir qui chercherait à dissoudre sa responsabilité morale dans la crise écologique au sein de la relationnalité holistique et (souvent indifférenciée) des êtres vivants ou de la matière elle-même ? Semer le trouble implique que l'on revendique juste assez d'autonomie pour convertir l'état de trouble (ou d'invalidité, ou de perturbation) en une *pratique* consister à troubler (ou dévalider, ou perturber) les normativités hégémoniques. Cela implique une théorie de la subjectivité et de l'intentionnalité, même si ces concepts doivent être repensés et reformulés en clé posthumaniste.

S'il est vrai que personne n'est jamais innocent, alors nous devons tirer des conclusions radicales de ce constat et ne pas nous laisser entraîner dans la simple contemplation ou célébration du trouble et de la relationnalité. Comment pouvons-nous apprendre à habiter

[1783] Haraway, *Vivre avec le trouble*, pp. 74, 263, 267.

concrètement le moment contemporain, aussi troublant et troublé soit-il ? Bien qu'une telle orientation vers l'action puisse sembler nous éloigner d'une ontologie, d'une éthique et d'une épistémologie posthumaniste radicale, je suggère qu'elle est nécessaire à tout horizon de libération totale. Cela pourrait également être justifié par les troubles dishumains et disanimaux de l'autisme. En effet, dans un monde intense – ou plutôt intensément validiste – qui laisse les personnes autistes existentiellement désorientées et leur vie matériellement incapacitée, il est parfois nécessaire de revendiquer son agentivité (hum)animale pour simplement prendre conscience de cette désorientation et cette incapacitation, sans parler d'y survivre.

De cette manière, les gestes conceptuels et méthodologiques accomplis dans la partie II peuvent laisser les lecteur·ices attaché·es à une doxa posthumaniste perplexes – voire troublés – et c'est tant mieux. Qu'est-ce que ce posthumanisme qui semble ontologiquement enraciné dans une position subjective humaniste (à savoir l'animalité autiste), méthodologiquement attaché au cadre théorique traditionnellement humaniste de la phénoménologie, politiquement orienté vers un horizon humaniste de libération totale ? Je reconnais que je dramatise ici la tension et que j'exagère le propos. Mais l'argument fondamental demeure : confronté aux réalités matérielles de la praxis politique et aux diverses expériences vécues de marginalisation, le posthumanisme doit apprendre à semer le trouble au lieu d'en faire un fétiche conceptuel. Peut-être devrions-nous alors inverser la question : Qu'est-ce que ce posthumanisme qui s'engage tellement à déconstruire et à compliquer les différences ontologiques (par exemple, entre les animaux et les plantes, ou les êtres vivants et non vivants) qu'il compromet les efforts en faveur de la libération animale ; qui s'engage tellement à célébrer la relationnalité qu'il se montre incapable de soutenir l'abolition des relations de violence ; qui est tellement pris par les troubles du statu quo qu'il en devient incapable de véritablement y semer le trouble ?

Ma réponse à cette question réside dans ce que certain·es pourraient appeler un « humanisme stratégique » au service d'une politique posthumaniste radicale. Cela signifie que, pour favoriser une politique véritablement transformatrice, le posthumanisme devrait peut-être remettre en question sa célébration parfois acritique de la relationnalité. De plus, il pourrait être justifié, voire nécessaire, de mobiliser des concepts partiellement humanistes (tels que la sentience, la subjectivité, l'intentionnalité, etc.) et des cadres théoriques humanistes (en particulier la phénoménologie) afin de formuler des théories et des politiques posthumanistes plus transformatrices. À cet égard, le cadre onto-épistémologique que je mobilise dans la partie II pour analyser l'intersection entre l'autisme et l'animalité est celui de la phénoménologie animale et de l'éthologie philosophique, des approches qui regorgent de présupposés humanistes, comme nous l'avons vu dans la partie I avec Uexküll, Goldstein et Gehlen. Néanmoins, lorsqu'elles sont intégrées dans de nouvelles généalogies de la pensée posthumaniste, et compte tenu de leurs possibles applications anti-anthropocentriques et

antispécistes, elles peuvent nous permettre de résister à la violence conceptuelle et matérielle qui affecte les animaux·ales non humain·es et les humain·es autistes en raison de l'héritage mécaniciste et réductionniste de la modernité occidentale.

Au niveau conceptuel et onto-épistémologique, cette deuxième partie de la thèse adopte une approche du posthumanisme plus proche de la positivité et de l'affirmation que des cadres de pensée négatifs ou critiques qui animaient la première partie. En effet, la mobilisation d'une perspective phénoménologique et ontologique sur l'autisme et l'animalité implique que nous dépassions le moment de la déconstruction et de la complexification pour nous engager dans un processus de reconfiguration et de récupération subversive. La méthode phénoménologique, même lorsqu'elle est reformulée en phénoménologie posthumaniste, implique des descriptions positives des formes de subjectivité qui se matérialisent dans des positions bioculturelles données, comme celles de l'animal ou de l'autiste. Cela signifie qu'au lieu de se contenter de commenter les généalogies qui ont rendu intelligibles certaines théories ou figures dans des contextes données, la partie II se positionne plus explicitement en faveur de certaines interprétations plutôt que d'autres. Une dimension clé de mon orientation onto-épistémologique se trouve dans mon approche zoocentrique du posthumanisme, qui exclut naturellement d'autres orientations. L'accent mis sur l'animalité tout au long de cette thèse peut soulever des questions concernant d'autres formes plus-qu'humaines de vie (végétales, fongiques, etc.) et de matérialité (minérales, quantiques, etc.), mais il est néanmoins justifié par mon orientation antispécistes. Comme c'est souvent le cas dans les études animales critiques, ma défense des animaux·ales (autistes) en tant qu'êtres sensibles nécessite un cadre onto-épistémologique adapté aux conditions matérielles d'existence des êtres autistes et animaux.

Les orientations onto-épistémologiques soutenues dans la partie II favorisent donc une perspective phénoménologique qui reste en phase avec les spécificités ontologiques de l'animalité (en particulier la sensibilité et la subjectivité) par rapport à la végétalité ou à la matérialité physico-chimique pure. De cette manière, la positivité de mon cadre onto-épistémologique s'accompagne, ou plutôt découle, de la critique et de la négativité caractéristiques de mon orientation éthico-politique, à savoir l'horizon d'une abolition des complexes industriels animalier et autistique.

Bien que les frontières entre positivité et négativité, humanisme et posthumanisme, humain et non humain restent largement floues tout au long de la partie II, les positions plus affirmatives que j'adopte dans cette partie m'incitent à m'engager dans un autre type de logique conceptuelle. Cela se reflète typographiquement par la suppression de la barre oblique dans « posthumanisme » et « handicap » : il ne s'agit plus de créer la distance nécessaire pour décortiquer le post/humanisme, mais plutôt de naviguer entre différentes positions et d'habiter les tensions et les complexités qui en découlent. De cette manière, l'humanisme et le

posthumanisme ne sont plus abordés comme des généalogies en formation, mais plutôt comme des positions ou des cadres de pensée (en partie) stabilisés qui peuvent être interrogés à des moments donnés. Cela me permet d'aborder leur relation différemment, en particulier dans des contextes de dishumanité et de disanimalité (auxquels nous pouvons ajouter des contextes de disvégétalité, dismatérialité, et disécologie).

Par exemple, l'un des arguments centraux de la partie II repose sur l'idée que les conceptions écologiques du plus-que-humain (en particulier celles qui s'appuient sur des onto-épistémologies plates et hyper-relationnelles) ne répondent pas aux critères d'une politique antispéciste radicale (par exemple, vegan ou abolitionniste). Le posthumanisme que j'envisage dans ces chapitres est résolument antispéciste. Cela est également évident dans la dialectique de l'humanisation et de la déshumanisation (et particulièrement l'animalisation), qui trouve une sorte de synthèse dans la figure de l'humanimal·e. En effet, ma proposition politique dans la partie II peut se résumer par l'invitation à embrasser l'animalité humaine, en particulier l'animalité autiste, comprise comme rejet du dualisme humain/animal et comme repositionnement dans la catégorie enrichie de l'animalité. L'humanimal·e reconnaît enfin (et parfois célèbre) le non-humain ou l'inhumain en lui-même et peut ainsi se refonder et se reconfigurer en tant que sujet. C'est précisément ce que je propose avec l'éthologie philosophique : une approche qui propose une définition positive de l'animalité plutôt que de simplement la déconstruire. Il me semble que ce geste peut déjà constituer une forme de posthumanisme dans son rejet de l'anthropocentrisme et du spécisme, tout en investissant l'un des pôles de la dichotomie traditionnellement humaniste entre l'humain et l'animal.

Le chapitre 4 explore l'intersection entre la neurodiversité et l'animalité afin d'appeler à un tournant plus-qu'humain dans les études de la neurodiversité. Révélant les tensions entre les approches environnementalistes ou écologiques, d'une part, et les approches animalistes et antispécistes, d'autre part, il met en évidence certaines des limites des positions traditionnelles en études de la neurodiversité, qui reposent historiquement sur une forme d'anthropocentrisme. En outre, il examine les façons dont la neurodiversité a été mobilisée pour ou contre la libération animale et suggère l'existence de formes spécifiques de spécisme et de véganisme neurodivergents. Enfin, en examinant la co-construction de la neuronormativité, du validisme et du spécisme (parmi d'autres axes d'oppression liés notamment à la colonialité et au capitalisme), il propose une généalogie critique de la neurotypie comme typicité de l'espèce et repense la neurodiversité comme un espace de critique antispéciste-posthumaniste.

Ensuite, le chapitre 5 met en évidence les dangers potentiels du discours neurologique dans les études de la neurodiversité et le mouvement du même nom. Alors que les systèmes nerveux sont souvent décrits comme le substrat biologique de l'animalité, le discours neurologique s'appuie souvent sur des épistémologies réductionnistes qui ont historiquement

nui aux humain·es neurodivergent·es et aux animaux·ales non humain·es. Plutôt que d'être considérée comme une source de vérités innocentes ou fondamentales, la science neurologique devrait donc être considérée comme un espace de significations contestées, susceptible de causer des dommages et de susciter des résistances. Appelant à un tournant plus-que-neurologique dans les études de la neurodiversité, ce chapitre invite à un décentrement de la neurologie, compris à la fois comme un passage d'une approche réductionniste centrée sur le cerveau à une approche holistique et posthumaniste de la corégulation neuroplastique, et comme le développement de modes de figuration alternatifs au-delà de la neurologie.

Enfin, le chapitre 6 examine les « éthologies de l'autisme », une notion qui suggère que le comportement a été et demeure une dimension déterminante de l'autisme dans les champs sociaux, scientifiques et théoriques. Si le tournant neurologique en psychologie a en partie détourné la recherche scientifique sur l'autisme de la psychanalyse et du behaviorisme, ces approches ont persisté dans différents domaines et continuent de cibler les personnes neurodivergentes et les animaux·ales non humain·es. Ce chapitre offre un aperçu des différents endroits où le discours et la pratique scientifiques ont ciblé le comportement autiste et animal, tels que le behaviorisme, les modèles animaux de l'autisme et l'éthologie. Afin de résister aux tendances hégémoniques du behaviorisme, je tente de récupérer, de subvertir et d'élargir radicalement les modèles comportementaux et éthologiques de l'autisme et de l'animalité, notamment en proposant le cadre théorique de la diversité éthologique.

CONCLUSION GÉNÉRALE

SYNTHÈSE DES ARGUMENTS

Au terme de cette étude, qu'a-t-on appris sur l'autisme et l'animalité ? Dans l'optique de récapituler mes conclusions, il est utile de reprendre les trois problématiques principales soulevées par la rencontre entre l'autisme et l'animalité : (1) la question des relations entre humain·es autistes et animaux·ales non humain·es, (2) la question de la co-construction de l'autisme et de l'animalité, ainsi que du spécisme et de la neuronormativité, et enfin (3) la question de l'autisme animal, entendu à la fois comme autisme chez les animaux·ales non humain·es et comme revendication de l'animalité autiste.

En ce qui concerne les relations entre humain·es autistes et animaux·ales non humain·es, nous avons vu que l'affinité des premier·es pour les second·es, à l'image de l'intérêt de Christopher pour Wellington dans *Le bizarre incident du chien pendant la nuit*, pouvait parfois prendre la forme d'un « trouble dans l'espèce » qui vient reconfigurer et potentiellement déconstruire l'opposition binaire, héritée de la modernité-colonialité occidentale, entre humain (typique) et animal (divergent). Pourtant, il nous est aussi apparu que, dans bien des cas, l'idée d'une affinité toute naturelle des humain·es autistes (et particulièrement les femmes autistes) pour les animaux·ales non humain·es repose sur des tropes de naturalité, de pureté et d'innocence qui, tout en investissant le cadre de pensée écologique de la neurodiversité comme biodiversité, consolident les frontières de l'espèce et du spécisme.

Dans le contexte des discussions sur le véganisme et le spécisme, ces deux positions opposées prennent la forme de ce que j'ai appelé le véganisme neurodivergent et le spécisme neurodivergent. Ces concepts désignent à la fois la mobilisation du discours de la neurodiversité pour ou contre la libération animale, mais aussi le déploiement d'un ensemble de positions théoriques et politiques sur la question animale depuis des perspectives situées neurodivergentes. De manière à échapper à la tentation de l'innocence à cet endroit, j'ai proposé une approche éthique des relations humain·es-animaux·ales fondée sur la réflexivité, le rejet de l'essentialisme et une posture critique. S'il ne s'agit pas d'opposer de manière binaire et réductrice des attitudes autistes animalistes et anti-animalistes prétendument homogènes ou naturelles, il m'a néanmoins semblé pertinent d'étudier comment les expériences vécues de l'autisme, en tant que condition sociale minorisée, peuvent conduire à développer des formes de solidarité et d'alliance, sinon même des mouvements de coalition entre les communautés

autistes et neurodivergentes, d'une part, et les mouvements antispécistes et les animaux·ales non humain·es elleux-mêmes, d'autre part.

De manière similaire, la question de l'essentialisme et de l'identitarisme de ces politiques m'a conduit·e à schématiser deux modèles théoriques principaux, là encore opposés : la (neuro)parenté transespèce et la solidarité éthodivergente. La première renvoie à la modalité actuelle la plus courante de l'affinité entre les humain·es autistes et les animaux·ales non humain·es qui présentent des traits similaires à l'autisme. La seconde insiste au contraire sur l'expérience partagée – bien que différentielle et asymétrique – de l'éthonormativité et repose davantage sur un modèle coalitionnel. S'il m'est apparu que la neuroparenté transespèce pouvait avoir sa pertinence dans des contextes hypothétiques où l'autisme (ou toute autre forme de neurodivergence) serait attesté chez un·e animal·e non humain·e, cette logique neurocentrée demeure potentiellement réductrice, essentialiste et identitaire. Elle tend notamment à conditionner le souci et la solidarité à la ressemblance, contrevenant par là même à l'invitation du paradigme de la neurodiversité à célébrer les différences et reproduisant un biais de préférence anthropocentrique. Par opposition, le régime de la solidarité éthodivergente propose d'étendre le champ de la considération morale et de l'alliance politique sur la base d'une résistance à l'éthonormativité, un régime biopolitique de normativité reposant sur des idéaux de typicité du comportement par rapport à des constructions hégémoniques d'espèce.

La réflexion sur les relations d'affinité et de solidarité entre humain·es autistes et animaux·ales non humain·es renvoie ici aux deux autres pans de mon étude : la coconstruction du spécisme et de la neuronormativité, et l'hypothèse d'un autisme – et plus largement d'une neurodivergence – animales. En ce qui concerne la coconstruction du spécisme et de la neuronormativité, celle-ci s'est d'abord révélée dans la partie I au travers de lectures parasitaires de philosophies post/humanistes à partir de Jakob von Uexküll, Kurt Goldstein et Arnold Gehlen. La construction croisée des conceptions modernes de l'humanité et de l'animalité avec diverses figures du handicap autistique (la dys/harmonie, le dés/ordre et le dys/fonctionnement, et, par la suite, avec Niko et Elisabeth Tinbergen, la dés/adaptation) m'a permis de retracer l'histoire d'une modernité dishumaine dans laquelle parler de l'humain et de l'animal implique toujours de parler du handicap.

Par ailleurs, la mise en évidence d'une co-construction historique du validisme et du spécisme dans la modernité-colonialité occidentale nous a permis de mieux comprendre l'imbrication du spécisme et de la neuronormativité. Il nous est apparu que, via les dispositifs de bestialisation et les technologies de spéciation, l'humanisme impose un idéal fantasmatique d'humain typique nécessairement blanc, bourgeois, cishétérosexuel, adulte, valide et neurotypique. À travers une généalogie critique, antispéciste-posthumaniste de la neurotypie, il

nous est apparu que les constructions sociales d'espèce sont au cœur du dispositif biopolitique de la neurotypie et du paradigme neuronormatif.

En ce sens, la stratégie politique d'humanisation et la grammaire politique humaniste du mouvement de la neurodiversité peuvent certes être efficaces à court terme et dans une logique monothématique (c'est-à-dire non intersectionnelle), mais elles s'avèrent potentiellement contre-productives et même problématiques lorsqu'on les considère d'un point de vue historique et intersectionnel. L'illusion de la libération par l'humanisation promise par la modernité dishumaine, en particulier dans le contexte du capitalisme néolibéral – qu'on pourrait ici assimiler à une forme de *postmodernité* dishumaine – se déconstruit d'elle-même quand on comprend que la résurgence néofasciste actuelle est la conclusion directe de l'ère du capitalisme néolibéral plutôt que sa négation.

Certes, dans le contexte actuel, tout nous pousse à insister sur l'importance de l'humanisation, et le recours à un humanisme stratégique peut parfois apparaître légitime. Néanmoins, il convient de noter qu'en contexte de résurgence fasciste, ce sont les communautés qui bénéficient le moins de la logique d'humanisation, à savoir les communautés racisées et les animaux·ales non humain·es, qui sont les plus directement visées. Il n'est pas anodin que les discours racistes et carnistes les plus pernicieux et les plus assumés fassent aujourd'hui leur grand retour sur la scène internationale. Si les idées patriarcales et neuronormatives semblent également regagner de la vigueur, aucune des structures de domination sous-jacentes – à savoir le capitalisme racial et la suprémacie blanche, le capitalisme spéciste et l'exceptionnalisme humain, le capitalisme patriarcal et la famille nucléaire cishétéronormative, le capitalisme productiviste, capacitiste et neuronormatif – n'a jamais été renversée. L'impression inverse relève de l'illusion.

Dans ce contexte, la tonalité des analyses actuelles de la situation dans les rangs de la gauche dominante est particulièrement révélatrice et inquiétante : la logique libérale-humaniste du progrès semble être parvenue à créer l'illusion que tout a changé sans que rien ne change véritablement. Il serait en effet tentant de croire que, suite aux différentes conquêtes sociales des mouvements féministes et LGBT dominants, c'est-à-dire blancs et bourgeois, les fondements oppressifs et inhumains de la modernité humaniste ont finalement été renversés et remplacés par des dynamiques plus « progressistes ». Là encore, le vernis progressiste dissimule la réalité de l'oppression. En réalité, la résurgence fasciste contemporaine révèle surtout le fait que les dynamiques racistes, coloniales, patriarcales, spécistes et neuronormatives étaient toujours à l'œuvre et s'accommodaient parfaitement de mouvements « progressistes » disposés à jouer le jeu de l'assimilation. Non, nous ne valons pas mieux que ça. Oui, c'est *ça* l'« Amérique », et c'est *ça* l'Europe. Ça l'a toujours été. Tant que nous ne démantelons pas concrètement les édifices du capitalisme, de la suprémacie blanche, de la suprémacie humaine

et de la suprémacie neurotypique, la stratégie politique humaniste restera inévitablement une pratique assimilationniste.

Dans le contexte de l'autisme et de l'animalité, ces analyses soulignent la responsabilité particulière d'un mouvement de la neurodiversité qui semble non seulement s'être construit sur des bases humanistes-spécistes, mais dont le racisme et l'assimilabilité dans le capitalisme néolibéral sont bien documentés. En insistant sur le rôle fondamental du spécisme et son imbrication directe avec les systèmes d'oppression (entre autres) raciste, capitaliste, patriarcale, valide et neuronormative, cette étude a cherché à déconstruire l'illusion d'une désirabilité de l'humanisme, une idéologie qui, faut-il le rappeler, est au cœur du développement des entreprises coloniales et capitalistes en Occident.

Contre cette logique, l'horizon d'un réinvestissement critique et subversif de l'animalité (autiste) semble constituer une voie privilégiée. Suivant les orientations d'une pensée antispéciste-posthumaniste, ce tournant « plus-qu'humain » et particulièrement « animal » se doit d'articuler la question de la neurodivergence chez les animaux·ales non humain·es et celle de l'animalité des humain·es autistes. En ce qui concerne la question de l'autisme animal (non humain), je me suis intéressé·e à différents sites principaux. J'ai montré que cette question est souvent abordée de manière superficielle, que ce soit de manière expressément métaphorique, comme dans les métaphores de Winthrop-Young et Espahangizi au chapitre 1, ou de manière plus subtilement métaphorique ou analogique, comme dans les discussions de l'*autism-like* et du HsHa par les psychiatres vétérinaires et les scientifiques de l'autisme, ou encore dans l'expression communautaire « tou·tes les chat·tes sont autistes », au chapitre 6. Dans ces différents exemples, nous avons vu que la figure de l'animal·e autiste constitue le plus souvent une figure d'altérité constitutive refoulée, qui permet de produire des discours et savoirs sur l'autisme chez les humain·es sans pour autant avoir d'incidence positive sur la réalité des non humain·es en question. Dans le cas des diagnostics d'*autism-like* et de HsHa, les conséquences sont bien réelles ; il est urgent de réfléchir aux conditions et aux limites éventuelles d'une application du paradigme de la neurodiversité aux animaux·ales non humain·es.

Un premier pas dans cette direction a été pris avec l'affirmation résolue du fait qu'il n'existe aucune raison valable d'exclure les animaux·ales non humain·es du champ de la neurodiversité, pas plus que celle de l'autisme – bien que l'extension d'un concept psychiatrisant tel que l'autisme à des animaux·ales non humain·es doive être considérée avec une prudence toute particulière. L'exclusion *a priori* des animaux·ales non humain·es et de l'animalité du champ des études critiques de l'autisme et des études de la neurodiversité reproduit un geste humaniste et anthropocentré fondé sur l'exceptionnalisme humain. Ce faisant, le mouvement de la neurodiversité risque non seulement de laisser le champ libre aux psychiatres pour imposer un discours hégémonique sur l'autisme chez les animaux·ales, mais

aussi de rendre ces idées disponibles comme outils d'oppression à l'encontre des personnes autistes humaines elles-mêmes.

À cet égard, la proposition d'une revendication subversive de la catégorie (et du phénomène) de l'animalité à partir de l'éthologie philosophique ne m'a pas seulement conduit·e à examiner la question de l'autisme chez les animaux·ales *non humain·es*, mais aussi à suggérer que l'autisme et la neurodiversité plus largement constituent des phénomènes fondamentalement animaux plutôt qu'humains. La nécessité d'un tournant animal (à la fois antispéciste et posthumaniste) dans les études de la neurodiversité s'appuie ici sur une orientation théorico-politique intersectionnelle, mais elle participe également de la logique même de la neurodiversité. Revendiquer le champ de l'animalité nous permet en effet de contourner la co-construction hégémonique de la figure de l'autiste avec celles de l'humain et de l'animal, et ainsi de lutter plus efficacement contre le paradigme de la pathologie et ses présupposés in/humanistes.

Au-delà des logiques coalitionnelles plus traditionnelles, les pratiques queersomatiques comme le stim autiste ou encore l'épiphanie et la thérianthropie a(û)nimales me sont apparu·es comme des exemples forts de politique éthodivergente. Elles tracent un horizon existentiel et politique de revendication de l'animalité autiste au-delà du champ normatif de la déshumanisation et de l'animalisation. Certes, ces pratiques sont socialement coûteuses, et c'est peut-être pour cela que le mouvement de la thérianthropie a été présenté jusqu'à aujourd'hui comme une pratique spirituelle et identitaire portée prioritairement par des communautés blanches privilégiées, plutôt que comme une pratique militante et révolutionnaire. Pourtant, l'horizon décolonial, antiraciste et anticapitaliste de l'a(û)nimalité tracé par les représentant·es des études animales critiques latino-américaines, tel·les que Berenice Vargas García, laissent supposer un potentiel radical. Lorsque les franges les plus privilégiées des communautés autistes apprennent à articuler des politiques anti-assimilationnistes, le coût social de l'animalisation (mais aussi de la neurodissidence et de la folie) s'abaisse et l'animalité cesse (du moins partiellement) de fonctionner comme opérateur de déshumanisation pour des populations plus marginalisées.

LIMITES ET HORIZONS

Cette étude comprend trois projets indépendants dont les spécificités et les limites me sont apparues au cours de l'écriture : (1) tout d'abord, une généalogie philosophico-historique de l'imbrication des figures de « l'animal » et de « l'autiste » dans la modernité dishumaine, dont découle la nécessité d'un examen critique de la tradition post/humaniste et la possibilité d'une

reformulation philosophico-éthologique de l'animalité. (2) Vient ensuite une étude théorico-politique de l'imbrication de la neuronormativité et du spécisme, dont découle la nécessité de la résistance coalitionnelle à l'humanisme et d'un horizon antispéciste-posthumaniste. (3) Enfin, j'ai tracé les contours d'une étude phénoménologico-biopolitique des éthologies et écologies de l'autisme, avec l'idée d'articuler davantage les pensées posthumaniste et neurodivergente et de cartographier leurs potentielles tensions et reconfigurations.

Chacun de ces projets repose sur un ensemble différent de théories et de méthodes. Le premier projet est le plus classiquement philosophique et cherche à reformuler les perspectives de la biologie, de l'éthologie et de l'anthropologie philosophiques via les méthodologies corrosives de la déconstruction et du posthumanisme critique. Ce projet est développé dans la première partie de cette thèse, mais des recherches supplémentaires seraient utiles pour articuler une conception plus profonde de la manière dont la neurodiversité (et l'éthodiversité) se rapportent à la philosophie de la vie et aux études de l'animalité. Le second projet s'appuie sur des perspectives théoriques tirées des études de genre, des études animales critiques et des études critiques de la neurodiversité, et particulièrement les féminismes posthumanistes intersectionels et la théorie queer. Ce projet est développé dans la seconde partie de la thèse et incarne sa dimension plus publique et plus politique. Le troisième projet, qui constituait l'horizon initial de mon projet doctoral, a dû être coupé et reporté. En effet, le développement préalable de cadres théoriques et historiques à la confluence de la neurodiversité et du plus-qu'humain était nécessaire pour pouvoir articuler des descriptions phénoménologiques du rapport des personnes autistes au plus-qu'humain, y compris à des formes de matérialité qui transcendent l'animalité, telles que les technologies, les climats, les microorganismes, etc. Cependant, des traces de cet horizon initial se retrouvent dans les mentions faites par la thèse de la phénoménologie posthumaniste, par exemple à l'endroit des bulles autistiques, de l'intérêt monotropique et du stim autiste, ou encore dans les descriptions préliminaires d'une approche posthumaniste de la neuro- et microbiologie autiste.

La dimension relativement fragmentée de cette étude, qui peut dans un premier temps se présenter comme une limitation, suit en fait une logique de différenciation continue. Comme je l'ai mentionné dans l'introduction générale, elle découle certainement d'une éthologie queer du désir, d'un engagement répété auprès de la dimension plus-que* de la pensée neurodivergente. Elle suit également la voie ouverte par les méthodologies féministes posthumanistes, dans lesquelles la systématicité de la philosophie traditionnelle est remplacée par la dimension incarnée, située et partielle de la théorie. Cela dit, tout au long des chapitres, j'ai essayé d'aborder les concepts et les idées avec la rigueur et la complexité qu'exige une thèse de doctorat en philosophie. J'espère que les philosophes et les théoricien·nes féministes pourront apprécier la valeur et l'importance de cette perspective hybride.

D’autres limites et horizons se trouvent dans des perspectives qui ne constituent pas le cœur de mon étude, mais qui pourraient être explorées de manière productive à l’avenir afin de complexifier et de nuancer mes analyses. Les perspectives intersectionnelles constituent le principal horizon qui mériterait d’être approfondi : examiner plus en détail le rôle de la race, de la classe et du genre dans les mouvements antispécistes et de la neurodiversité, en particulier à travers les voix de penseur·euses et d’universitaires autistes racisé·es (notamment noir·es et autochtones), précarisé·es et sexualisé·es, serait utile pour déshomogénéiser davantage mes descriptions de l’autisme et situer davantage mes propositions dans les luttes décoloniales et anticapitalistes. Un autre horizon qui pourrait utilement exploré à l’avenir est la philosophie de la psychologie, qui pourrait apporter des éclairages instructifs sur l’onto-épistémologie de l’autisme, en particulier en ce qui concerne les débats sur le neurocentrisme.

L’accent mis sur l’autisme tout au long de cette thèse constitue également une limite de cette étude, que j’ai déjà évoquée. Les observations et les cadres théoriques que j’ai proposés ici découlent de ce contexte historique et de mon appartenance à la communauté autiste. Bien que je ne me sente pas pleinement qualifié·e pour parler d’autres neurodivergences, je reconnais que cela constitue également une limitation potentielle et que les réflexions que j’ai proposées dans les deux parties de la thèse ne s’appliquent pas forcément de manière égale à toutes les neurodivergences. Néanmoins, compte tenu de la nature large et englobante des cadres analytiques que j’ai déployés et des phénomènes que j’ai abordés (tels que la dishumanité et la disanimalité, les technologies de spéciation et les dispositifs de bestialisation, l’éthodiversité et l’éthodivergence), j’espère que mes conclusions pourront être appliquées et adaptées pour servir les intérêts du plus grand nombre.

Enfin, bien que j’aie proposé l’éthologie comme nouveau point de départ pour la théorie de la neurodiversité, je ne prétends pas que celle-ci soit la seule alternative viable au neurocentrisme. Je suggère plutôt que l’éthologie, en particulier dans ses formes philosophiques et phénoménologiques, offre un contrepoint convaincant à l’anthropocentrisme et au neuroréductionnisme qui prévalent dans une grande partie du discours et du militantisme actuels en lien avec la neurodiversité, et qu’elle fournit donc des perspectives utiles pour la penser conjointement avec l’humanisme et le spécisme. À cet égard, l’éthologie est au cœur de ma proposition de revendiquer l’animalité comme dimension essentielle de la neurodiversité et de la neurodivergence. L’étude de la construction et de la régulation sociale, culturelle et politique des affects, en particulier dans des contextes de marginalisation multiple fondée sur la race, la classe et le genre, s’est également avérée fructueuse pour beaucoup. Ainsi, en introduisant la notion d’éthodiversité, je ne suggère pas d’abandonner les études de la neurodiversité et de repartir de zéro, mais j’appelle à leur expansion radicale.

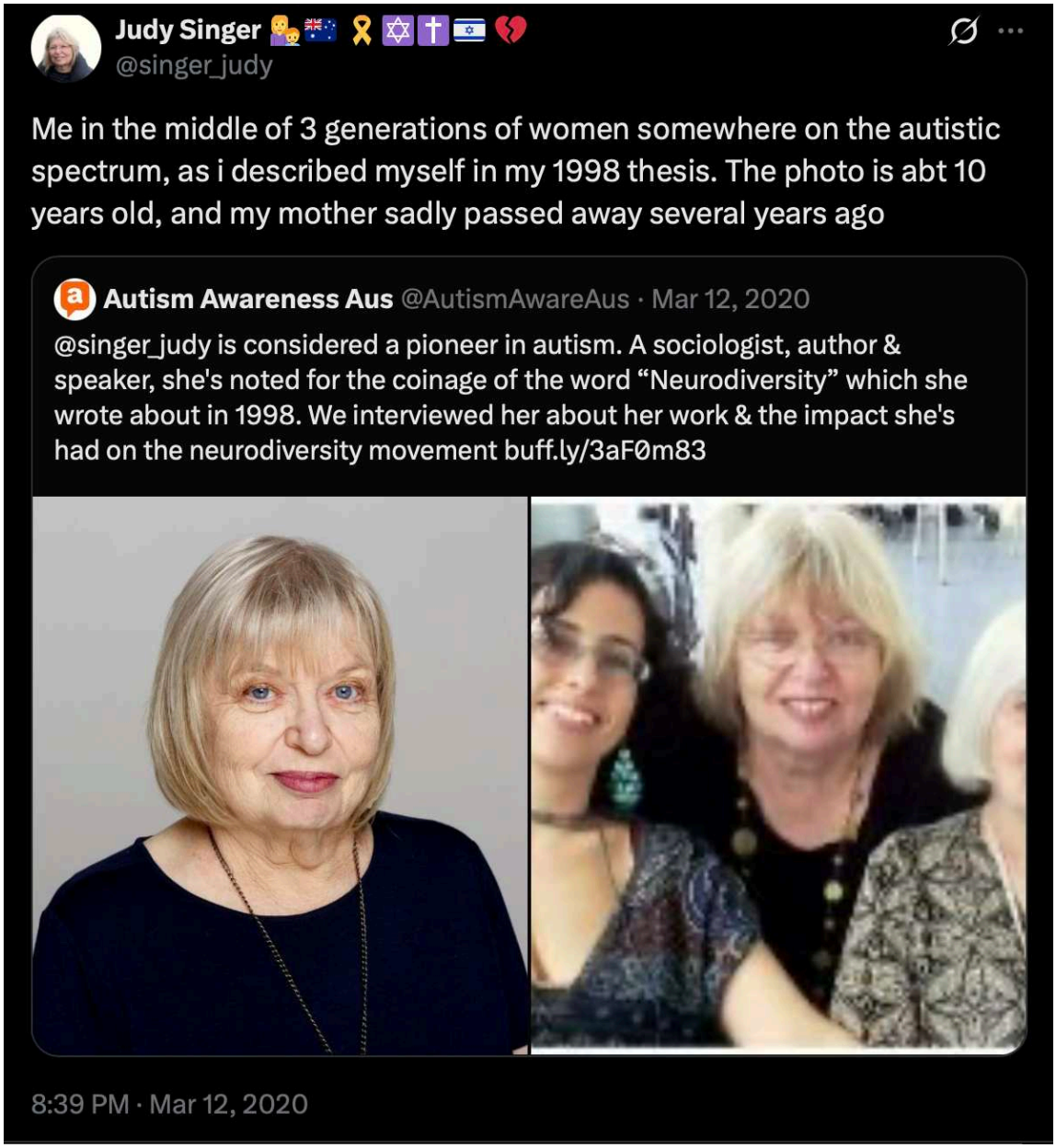
APPENDIX 3: TWEETS



Autistic Realms (@autisricrealms), '1. A seasonal interpretation of #monotropism / Thoughts? / Monotropic people will thrive in the right environment with the support of others to enable flexibility that is needed to regulate and manage #flow states.', 2 May 2024, 8:43 PM.



Autistic Selves (@AutisticSelves), 'A @monotropic brain can only focus on one thing at a time. Other people can misunderstnad us, thinking we are deliberately being difficult when it is actually our neurology and not our fault.' 7 September 2022, 6:35 PM.



Judy Singer (@singer_judy), 'Me in the middle of 3 generations of women somewhere on the autistic spectrum, as i described myself i my 1998 thesis. The photo is abt 10 years old, and my mother sadly passed away several years ago', 12 March 2020, 8:39 PM.



Judy Singer (@singer_judy): ‘You can thank my #neurodiversity work for my relationship with my mother who I called the Mother from Hell. The Hell was Auschwitz. Was she #autistic or traumatised by her experience? We can never know, as none of her family survived. Mercifully she did not live to see this.’ 10 November 2023, 9:51 AM.