

### CPH3.1.5

#### Somatophobia and Somatechnics, or, Posthumanism and Disability

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We are our bodies; the problem is that it does not necessarily feel that way... For the living body is never purely a physical body; it is also always an imagined one, as well, as there is no way to perceive it except as mental image.<sup>1</sup>

Since the inception of philosophy as a separate and self-contained discipline in ancient Greece, philosophy has established itself on the foundations of a profound somatophobia.<sup>2</sup>

#### *The Body and Embodiment in Posthumanist Theory*

No one ought to expect the forms of our liberation to be any less various than the forms of our oppression.<sup>3</sup>

Humans have bodies, so much is self-evident. Already less evident is the claim that humans *are* bodies. Humans have never been particularly happy with the body they have although some clearly have an edge over others in terms of perceived beauty, fitness or age. That humans *are* their bodies (and just that) is already a statement that is meant as a criticism, namely a criticism of the predominant doctrines, idealist, dualist and often spiritualist, to which being a body is not enough. It is usually a monist, materialist and biologist claim – often strategic, as part of a politics of resistance to powerful norms and value systems that see bodies as expressions of or support to something else, and usually something more valuable, namely a “mind”, a “soul”, something “immaterial”, ethereal, even mystical and godlike.

It is thus probably an understatement that the body has been traditionally devalued by Western metaphysics as impermanent and inferior to the mind. In late twentieth-century cultural and social theory, however, the body has become one of the most debated concepts. Poststructuralist, postcolonial and feminist theories have exposed the binary opposition between body and mind and the related oppositions between nature and culture, femininity and masculinity and public and private, as ideological constructs that have served to reinforce and perpetuate male and/or Western domination.

In modern Western societies and their liberal humanist value systems, social divisions and hierarchies have often been linked to and mapped onto the mind-body split. There has been a generalised cultural devaluing of those whose lives are considered to be confined to or by bodily processes and activities; and some groups tend to be overidentified with and through bodily characteristics (women, non-whites, the disabled). The bodies of dominant groups, in contrast, tend to be represented through and identified with intellectual achievement. Their physical traits and bodily functioning are often ignored or rendered insignificant: they tend to be viewed as “unmarked, neutral, universal and disembodied”. Thus, this powerful dichotomy – sometimes labelled Cartesian

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<sup>1</sup> Richard L. Kradin, “Somatophobia”, in: *Pathologies of the Mind/Body Interface: Exploring the Curious Domain of the Psychosomatic Disorders* (New York: Routledge, 2013): 29-39 [29, 30].

<sup>2</sup> Elisabeth Grosz, *Volatile Bodies: Towards a Corporeal Feminism* (Bloomington: Indiana University Press, 1994): 5.

<sup>3</sup> Elizabeth V. Spelman, *Inessential Woman: Problems of Exclusion in Feminist Thought* (Boston: Beacon Press, 1988): 126, 132.

dualism – still casts its shadow over Western culture. As Manuela Rossini aptly summarises this “ideal form” presupposed by “liberal humanism” presupposes and imposed as universal norm as:

represented perhaps most famously by Leonardo da Vinci’s Vitruvian Man – not only as androcentric and Eurocentric but also as ableist – that is, as prejudicial against people with disabilities – in the ostensible demonstration of certain elite human bodies as the measure for all humanity and for what counts as a healthy and perfect body, with all the privileges such a normative shape implies.<sup>4</sup>

According to Elisabeth Grosz, by distinguishing “two kinds of substances: a thinking substance (*res cogitans*, mind) from an extended substance (*res extensa*, body)”, Descartes believed that the body could be considered part of nature and as a “self-moving machine” that functions according to natural physical laws, while the mind or “the thinking substance, the soul, or consciousness, has no place in the natural world”.<sup>5</sup> Through this mind-body “split”, Descartes:

succeeded in linking the mind/body opposition to the foundation of knowledge itself, a link which places the mind in a position of hierarchical superiority over and above nature, including the nature of the body. From that time until the present, subject or consciousness is separated from and can reflect on the world of the body, objects, qualities.<sup>6</sup>

However, since the late 20<sup>th</sup> century there has been considerable contestation around the body as a locus of power relations. For example, Western feminists, were engaging in “body politics”. From a different perspective, the French philosopher Michel Foucault traced historical patterns of body discipline (in prisons and other settings), highlighting how social norms and conventions are realized and lived through the body. Others have focused on unruly, excessive or disruptive bodies as vehicles for social and political resistance or transgression.

Since the last decades of the 20<sup>th</sup> century historical scholarship, cultural analysis, and philosophical reflection centred on the body have flourished, spawning an appropriate conceptual vocabulary, referring to docile bodies, (bodily) regimes, surveillance (of bodies), biopower and biosociality, grotesqueness and abjection. This coincided with the evolution of theories which articulate and foreground the significance of living in and through the body and the bodily dimensions of social life, employing terms such as embodiment, corporeality, inscription (on the body), performance, and performativity.

What Grosz thus called “somatophobia” (or fear of and disdain for the body) is part of a centuries-long tradition in Western culture. It is therefore no surprise that the main common ground between posthumanist theory and disability studies in all its varieties is “the body”. The context for both is the rise of those theoretical paradigms that, in the later part of the 20<sup>th</sup> century, began to address the inherent hatred and displacement of the body in Western metaphysics. Given that posthumanism is usually associated with contemporary accelerated technological developments thinking embodiment under posthuman(ist) conditions might best be described as “somatechnical” as Nikki Sullivan explains:

In the last 20 years or so the notion of the body as biological, pre-cultural or natural entity has been replaced, at least in the work of post-structuralist feminists and cultural critics, with an understanding of bodies as the material effects of historically and culturally specific

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<sup>4</sup> Manuela Rossini, “Bodies”, in: Bruce Clarke and Manuela Rossini, eds., *Cambridge Companion to Literature and the Posthuman* (Cambridge: Cambridge University Press, 2017): 153-169 [154].

<sup>5</sup> Grosz, *Volatile Bodies*, p. 6.

<sup>6</sup> *Ibid.*

discourses, discursive practices and regulatory regimes. For these writers, bodies are not simply neutral matter overlaid with culture, nor are they ideal constructed objects. Rather, bodies as sites of (embodied) subjectivity are *lived* in particularised yet heterogeneous ways. In other words, *all* bodies are always already marked in so far as they are significant cultural entities; in so far as they come to matter.<sup>7</sup>

The poststructuralist conceptualisation of the body (and the embodied self) as produced through “inscription”, understood as both a material and semiotic process that is accessed by lived experience and mediated by social discourse, is also the point for the feminist new materialist notion of the “posthuman”. Its main proponent, Rosi Braidotti, uses Deleuze’s appropriation of Spinoza’s dictum that “we do not yet know what a body can do” to promote feminist conceptualisations of “matter-reality” and embodiment as forms of resistance to dominant patriarchal, idealist and capitalist forms of universalising and/or repressing the body. Instead of seeing the body as a confined and objective “given” posthumanists see embodiment as regulated, assisted and formed by, as well as entangled with, all kind of “technologies”, some of them cultural and social, and thus “learned”, some of them working like prostheses, tools or transformative processes. These corporeal “techniques” without which bodies would not be able to function are not just “add-ons”; they were, from the very beginning of hominization, “integrated”. It is in this sense that Andy Clark can rightly say that “we” are “natural-born cyborgs”.<sup>8</sup>

As Nikki Sullivan says in her introduction to *Somatechnics: Queering the Technologisation of Bodies*, co-written with Samantha Murray, somatechnics is based on a “chiasmatic interdependence of soma and techné: of bodily being (or corporealities) as always already technologized, and technologies as always already enfolded”.<sup>9</sup> To return to the idea of somatophobia, countered by the notion of somatechnics, one can therefore say that not only does the bodily and cognitive development of the human, its hominisation or rather humanisation, begin with tool use. Our connection with technology goes beyond mere “instrumentality”; instead, our co-implication is “originary” or “co-constitutive”.<sup>10</sup> Nikki Sullivan consequently speaks of “originary somatechnics” as:

the inextricability of *soma* and *techné*, of the body (as culturally intelligible construct) and the techniques (*dispositifs* and hard technologies) in and through which corporealities are formed and transformed... The term *somatechnics*... supplants the logic of the “and”, indicating that *techné* is not something we add or apply to the already constituted body (as object), nor is it a tool that the embodied self employs to its own ends. Rather, *technés* are the dynamic means in and through which corporealities are crafted: that is, continuously

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<sup>7</sup> Nikki Sullivan, “Somatechnics, or, the Social Inscription of Bodies and Selves”, *Australian Feminist Studies* 20.48 (2005): 363-366 [363].

<sup>8</sup> Andy Clark, *Natural-Born Cyborgs: Mind, Technologies, and the Future of Human Intelligence* (Oxford: Oxford University Press, 2003). Clark is one among many writers who extend the notion of “cyborg” to “human-technology symbiont”, and further to minds “spread across biological brain and nonbiological circuitry” (p. 3) based on an intensification of “cognitive hybridization” (4) – a process where “the mind is less and less in the head” and for which the plasticity of our brain has been evolutionarily prepared. It is in that sense that Clark speaks of “us” as “natural-born cyborgs, forever ready to merge our mental activities with the operations of pen, paper, and electronics” catching up with our “imminent ‘post-human’ future” (6).

<sup>9</sup> Nikki Sullivan and Samantha Murray, “Introduction”, in: Sullivan and Murray, eds., *Somatechnics: Queering the Technologisation of Bodies* (New York: Routledge, 2016): 3.

<sup>10</sup> The notion of “originary” technicity has become somewhat of a posthumanist “topos” and will be traced in a separate chapter. It goes back to the paleo-anthropologist André Leroi-Gourhan, or even the 19<sup>th</sup>-century philosopher of Technics, Ernst Kapp, and was taken up by Derrida, then developed in Bernard Stiegler’s *Technics and Time 1, The Fault of Epimetheus* (Stanford: Stanford University Press, 1998) and commented on extensively in Arthur Bradley’s *Originary Technicity: The Theory of Technology from Marx to Derrida* (Houndmills: Palgrave Macmillan, 2011).

engendered in relation to others and to the world. What we see here, then, is a chiasmatic interdependence of *soma* and *techné*: of bodily being (or corporealities) as always already technologized and technologies (which are never simply “machinic”) as always already enfleshed.<sup>11</sup>

This new form of materialism that goes beyond a simple opposition of material and ideal notions of reality allows for seeing bodies as both “enfleshed” and “entangled” with nonhuman actants and environments rather than as autonomous “containers” that are separate and thus governable. Stacy Alaimo conceives of this “posthumanist mode of new materialism and materialist feminism” as “trans-corporeality” which means that: “all creatures, as embodied beings, are intermeshed with the dynamic, material world, which crosses through them, transforms them, and is transformed by them”.<sup>12</sup>

### *Posthuman Bodies and Dis/Ability Studies*

The disabled body has come to occupy more than an “absent presence” in critical disability studies. Disability theory has addressed an original somatophobia through debates between social modelists, realists, phenomenologists, psychoanalysts and postconventionalists.<sup>13</sup>

Goodley and Runswick-Cole’s portrayal of critical disability studies as a renewed, interdisciplinary and conflictual engagement with the body shows the parallel development with theorising the posthuman. As Judith Halberstam and Ira Livingston wrote, already in 1995, during the heights of the AIDS epidemic: “The posthuman body is a technology, a screen, a projected image; it is a body under the sign of AIDS, a contaminated body, a deadly body, a techno-body; it is... a queer body”.<sup>14</sup>

What Halberstam and Livingston (building on Judith Butler’s and Donna Haraway’s work) did for new materialist understandings of embodiment in queer studies was also echoed in disability studies. For Halberstam and Livingstone, “[t]he posthuman marks a solidarity between disenchanting liberal subjects and those who were always-already disenchanting, those who seek to betray identities that legitimize or de-legitimize them at too high a cost”, which certainly includes all kinds of “disabled” bodies.<sup>15</sup> Basically, what is at stake is a revaluation of all bodies perceived as “different” and an insistence on a “non-normative” notion of humanness:

The posthuman does not necessitate the obsolescence of the human; it does not represent an evolution or devolution of the human. Rather it participates in re-distributions of difference and identity. The human functions to domesticate and hierarchize difference within the human (whether according to race, class, gender [one might add ability here]) and to absolutize difference between the human and the

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<sup>11</sup> Nikki Sullivan, “Somatechnics”, *TSQ: Transgender Quarterly* 1.1-2 (2014): 187-190 [187, 188].

<sup>12</sup> Stacy Alaimo, “Trans-corporeality”, in Rosi Braidotti and Maria Hlavajova, eds., *Posthuman Glossary* (London: Bloomsbury, 2018): 435-348 [435].

<sup>13</sup> Dan Goodley and Katherine Runswick-Cole, “The body as disability and possibility: theorizing the ‘leaking, lacking and excessive’ bodies of disabled children”, *Scandinavian Journal of Disability Research* 15.1 (2013): 1-19 [1].

<sup>14</sup> Judith Halberstam and Ira Livingston, eds., *Posthuman Bodies* (Bloomington: Indiana UP, 1995): 2.

<sup>15</sup> *Ibid*, p. 9.

nonhuman. The posthuman does not reduce difference-from-others to difference-from-self, but rather emerges in the pattern of resonance and interference between the two.<sup>16</sup>

The main strategy of posthumanist theory in thinking about the body lies thus in the erosion of its traditional normative, or “humanist”, boundaries. This is clearly what is at stake in Donna Haraway’s seminal “Cyborg Manifesto” and a definition of the cyborg as “a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction”.<sup>17</sup> The boundaries around the body of the “liberal humanist” subject with its supposed individual autonomy Haraway sees as eroding under the intensified “technoscientific” and “technocultural” conditions of the late 20<sup>th</sup> century and beyond, a process that leads to a proliferation of “monsters” or hybrids between humans and machines (cyborgs), humans and animals (chimeras) and physical and virtual beings (avatars):

By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs. The cyborg is our ontology; it gives us our politics. The cyborg is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation. (...) The second leaky distinction is between animal-human (organism) and machine. (...) The third distinction is a subset of the second: the boundary between physical and non-physical is very imprecise for us.<sup>18</sup>

Haraway, however, already then, seemed to privilege the second leaky boundary when she suggested that:

By the late twentieth century in United States scientific culture, the boundary between human and animal is thoroughly breached. The last beachheads of uniqueness have been polluted if not turned into amusement parks – language, tool use, social behaviour, mental events, nothing really convincingly settles the separation of human and animal. And many people no longer feel the need for such a separation; indeed, many branches of feminist culture affirm the pleasure of connection of human and other living creatures.<sup>19</sup>

Indeed, in terms of politics, Haraway, always aware that a cyborg world can also be “about the final imposition of a grid of control on the planet, about the final abstraction embodied in a Star Wars apocalypse waged in the name of defence, about the final appropriation of women’s bodies in a masculinist orgy of war”. She hopes nevertheless that a feminist new materialist perspective, on the other hand, and from another perspective, might shift this cyborg world towards “lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints”. Arguably, we are still very much in the middle of this war of visions for an emerging “cyborg world” and the question of ability or disability is one of the central battlegrounds.

The cyborg figure was instrumental in getting posthumanism on the theoretical map even if Haraway herself never accepted the label. While Haraway could be said to be interested first and foremost in the second part of the compound of “cyborg” (i.e. cybernetic *organism*), the other component (i.e. cybernetics) is the focus of a complementary approach which lies in a critique precisely of the first

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<sup>16</sup> *Ibid.*, p. 10.

<sup>17</sup> Donna Haraway, “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century”, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991): 149-181 [149].

<sup>18</sup> *Ibid.*, p. 151ff.

<sup>19</sup> *Ibid.*

part of the cyborg (i.e. the cybernetic) provided by N. Katherine Hayles and her view of the posthuman which she defines in the following way:

What is the posthuman? Think of it as a point of view characterized by the following assumptions. [...] First, the posthuman view privileges informational pattern over material instantiation, so that embodiment in a biological substrate is seen as an accident of history rather than an inevitability of life. Second, the posthuman considers consciousness [...] as an evolutionary upstart trying to claim that it is the whole show when in actuality it is only a minor sideshow. Third, the posthuman view thinks of the body as *the original prosthesis* we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born. Fourth, and most important, by these and other means, the posthuman view configures the human being so that it can be seamlessly articulated with intelligent machines. In the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals.<sup>20</sup>

Even though Hayles puts forward these characteristics of the posthuman with the intention to critique their instrumentalism, dualism and idealism one nevertheless senses an uneasy fascination, or an intuition that the cybernetic desire of disembodiment might prove to be irresistible. In short, there is a sense of technological determinism even in Hayles's critical account of "how information lost its body". The ambiguity results from the fact of understanding the body as an "original prosthesis" and as a "configuration" that awaits its "interfacing" with intelligent machines that promise to extend "consciousness" into the realm of the virtual. There is, in fact, much to please an approach in the "remedying" of (human) disabilities both at a somatic as well as a psychological or cognitive level.

To be fair, Hayles is adamant in her defence of "our" embodied existence but there is also a much greater openness towards new forms of "distributed cognition" and cyborgisation at what one might call an "immaterial" level than for example in Haraway. In "Posthuman Bodies: Why They (Still) Matter",<sup>21</sup> Hayles defines a posthuman body as "any cognitive entity that has the potential to be understood in more open-ended ways than has historically been the case", which includes humans but also "nonhuman biological lifeforms and computational media – the common connecting link between them being their capacity for cognitive acts".<sup>22</sup> Hayles goes a lot further down the neuro-cognitive route that the original figure of the cyborg was meant to challenge in Haraway's manifesto. The very notion of materialism, or "matter-realism", as Braidotti would say, has become much more dynamic and "immaterial" (like Karen Barad's "mattering") by focusing on the potentiality of entities and agents for "meaning" in a decidedly "post-hermeneutic", "bio-cyber-semiotic sense". Within this framework it is of course becoming difficult to deny algorithms, artificial intelligence, and even programmes "originality", "creativity" and, eventually also "consciousness" and "life". While it seems that for Haraway the cyborg was a strategic figure designed to highlight and deconstruct dualisms or binary oppositions, especially nature and culture, human and machine, human and animal, organic and inorganic, however, not with the ultimate aim of transcending them but merely, through hybridisation, highlight their arbitrariness and political nature, Hayles clearly embraces the figure of the "human" much more as a political device to extend these hybrids onto a digitalised plane of new

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<sup>20</sup> N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999): 2-3.

<sup>21</sup> Hayles, "Posthuman Bodies: Why They (Still) Matter", in: Grant Hamilton and Carolyn Lau, eds., *Mapping the Posthuman* (New York: Routledge, 2024): 29-48.

<sup>22</sup> *Ibid.*, p. 29.

ontologies based on mixed materialities, actual (analog, biological...), virtual (digital, cybernetic, electrical...) and “distributed” (i.e. based on a composition of “matter-energy”).

As a result, Hayles is therefore also much more ready to engage with transhumanist ideas of techno-evolution and what one might call (pseudo-religious) “techno-trans-substantiation”. In short, Hayles tends to take the posthuman, as the most far-reaching and radical political “figure” or “figuration”, most “literally”.<sup>23</sup> Even though Hayles talks about posthuman bodies, thus understood, as an opportunity to “rethink our relation to the more-than-human world and to computational media with which we are engaged in a deep, and still growing, cyber-symbiosis”,<sup>24</sup> it becomes quite clear that she is ultimately more interested in the computational media side of our “more-than-human” world, i.e. in “*technosymbiosis*”, even though she wishes to include “humans, nonhumans, and computational cognitions” and, to that effect, engages with Wendy Wheeler’s “biosemiotics” approach, which includes “all lifeforms capable of cognitive acts, even plants and unicellular organisms such as bacteria”.<sup>25</sup> Hayles proposes to expand this “semiosphere” towards computational media and in doing so lay the groundwork for “cyber-biosemiotics”.<sup>26</sup> Ultimately, Hayles’s political concern is about “allowing for further positive technosymbiosis”.<sup>27</sup> She therefore tries to find better ways of distinguishing between biological and computational cognition and their different forms of agency.

All this is motivated by Hayles’s wariness of “biologism”, which she explains as “the unwarranted extension of biological reasoning to computational systems”.<sup>28</sup> While biological “entities” can be said to be “autonomous” in their cognition, computational media relies on the “human-computer dyad” as a “cognitive assemblage through which information, interpretations, and meanings circulate”.<sup>29</sup> The differences between biological lifeforms and computational media lie in their “radically different embodiments”,<sup>30</sup> what makes apparent the current confusion of “biologism”, i.e. the extension of the kind of autonomy of biological entities to computational media. Hayles takes this to be a transitional phase of a “crisis of representation”, which needs to be overcome to enable the mentioned technobiosymbiotic outcome – a peaceful and mutually beneficial co-existence between biological and computational entities. She envisages two “Great Inversions”: while currently biological entities are about “survive and reproduce”, computational media function according to the principle of “design and purpose”. While biological life shifts towards “design and purpose” in its evolution, computation becomes increasingly focused on “survive and reproduce” aspects. The second inversion concerns the “progression of lifeforms (...) from immersion to abstract symbols, whereas for computational systems it is from abstract symbols up to environmental immersion”.<sup>31</sup>

True to the trajectory that Hayles began by using the past tense in *How We Became Posthuman*, for her, due to the deep engagement between humans and computers and the creation of and reliance on “distributed cognitive environments” capable of creating meaning and developing consciousness, humans have already become indistinguishable from computational media (or at least will inevitably become so). The best “we” can hope for under these technologically determined circumstances is a

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<sup>23</sup> Cf. my “Postfiguration, or, the Desire of the Posthuman”, *(Un)Learning to Be Human? Collected Essays on Critical Posthumanism 1* (Leiden: Brill, 2024): 163-207.

<sup>24</sup> Hayles, “Posthuman Bodies”, p. 30.

<sup>25</sup> *Ibid.*, p. 31.

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*, p. 34.

<sup>28</sup> *Ibid.*, p. 34.

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*, p. 37.

<sup>31</sup> *Ibid.*, p. 38.

political system that salvages at least some values of liberal democracy through establishing a framework Hayles names “ecological reciprocity” that would create “an enlarged vision of liberatory potentials that extend beyond humans to include nonhumans and cognitive media”.<sup>32</sup>

Again, given that Hayles does merely “name” nonhumans (and one has to assume that she uses this term to refer to nonhuman animals, because computational media are listed separately) but does not specify the effects that nonhuman animals are experiencing through the integration of human and computational media into distributed cognitive “environments”, one cannot help but see to what extent this “framework” might be able to resist the transhumanist visions and their aversion to what they would call a “biocentrism” that needs to be transcended.

In what way is this discussion of Hayles’s more recent trajectory relevant for disability studies? In my view, Hayles’s toying with the integration of techno-bio-cyber-semiotics that takes biological (Haraway’s organic) and computational (inorganic) “cognition” under the same umbrella while at the same time struggling to preserve a clear distinction between them by attributing different forms of “agency” to them will go against the desire of at least some people with “disabilities” (as either perceived by themselves or by society or indeed both) to ultimately overcome this very distinction and thereby overcome their “impairment”, namely by entering into a techno-bio-cogno-symbiosis in the form of “neuro-enhancement” technologies and/or “smart” prostheses. Ultimately, what one might call Hayles’s politics of transhumanist “appeasement” risks backfiring. To explain why, let me return to what Haraway referred to as “the promises of monsters” as well as to the notions of “monstrosity” and “monstrous bodies” more generally.<sup>33</sup>

Basically, to speak with Sherryl Vint, what is at stake here is a conflict about “our” “bodies of tomorrow”, and the “ways that technology might change us – both planned and unimagined – that make it essential that we think critically about the posthumanism we embrace in the twenty-first century”, in other words, it is the question of an “embodied notion of posthumanism”,<sup>34</sup> or, as I would add, a posthumanism “without” technology.<sup>35</sup>

### *Monstrous and Prosthetic Bodies*

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<sup>32</sup> *Ibid.*, p. 45.

<sup>33</sup> Cf. Donna Haraway, “The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others”, in: Lawrence Grossberg, Cary Nelson and Paula A. Treichler, eds., *Cultural Studies* (New York: Routledge, 1992): 295-336.

<sup>34</sup> Cf. Sherryl Vint, *Bodies of Tomorrow: Technology, Subjectivity, Science Fiction* (Toronto: University of Toronto Press, 2007): 16. Vint summarises the challenges such a posthumanism faces very aptly, particularly with a view towards the ambiguous role this might play for disability studies:

The body – abject, material, immanent, and vulnerable – is that which forces us to recall our own limitations and retain an awareness of our connections to the rest of the world and other beings in it. However, the body has also been the site of cultural exclusions and oppressions, a space where culture acts upon and shapes the subject in limiting and distorting ways. The challenge for an ethical, embodied posthumanism, then, is how to retain a notion that the body is integral to subjectivity without falling into the trap of validating an essential and reified body morphology and identity at the same time. (183-184)

In sum, “the ‘post’ of posthumanism should not be a post-biological embodiment. The ‘post’ in posthumanism should be a ‘post’ to the heritage of humanism, which makes humans the only subjects in a world of objects” (189).

<sup>35</sup> This goes back to a Gedankenexperiment in: Ivan Callus and Stefan Herbrechter, “Critical Posthumanism or, the *inventio* of a posthumanism without technology”, *Subject Matters* 3.2/4.1 (2007): 15-29, and will be elaborated further in the introduction.



*Postmodernism*, poststructuralism, postcolonialism, postindustrial capitalism [...posthumanism]: the proliferation of academic “post-isms” marks simultaneously the necessary or regrettable failure to imagine what’s next and the recognition that it must always appear as “the as yet unnameable which is proclaiming itself and which can do so, as is necessary whenever a birth is in the offing, only under the species of the non-species, in the formless, mute, infant and terrifying form of monstrosity”.<sup>36</sup>

What disability studies and critical posthumanism share is an interest in what Donna McCormack, following Haraway, calls “tracing monstrous kin”.<sup>37</sup> “Unnatural” or “extraordinary” bodies, bodies that do not seem to correspond to a constructed norm, normality and normalcy are often considered “monstrous” or “freaks”.<sup>38</sup> They are “spectacular” in the etymological sense still at work in the monster (from Latin “monstrare”, to show). Their deformities are embodiments, both semiotic and material in the sense mentioned above, that threaten “what has been constructed to be received as natural, as human”, as Jeffrey Jerome Cohen states in the preface to his seminal *Monster Theory*.<sup>39</sup> As an “embodiment of difference” (or “difference made flesh”)<sup>40</sup> the monster and its body are “breakers of category” but also screens of projection (of desires, fears and abjection) and “sites/sights” where cultural difference is being negotiated; where norms are either temporarily suspended, negotiated and usually confirmed, as “abjected fragments” that enable the formation and confirmation of “normal” (or “ableist” to use the term that critical disability studies employs to designate this dominant system of “normalcy”) identities.<sup>41</sup> Monsters, however, in threatening normalcy can also be re-appropriated to reconfirm it – they follow a deconstructive logic, according to which Jacques Derrida feels the need to differentiate between “normal” and “monstrous monstrosities”,<sup>42</sup> where only the latter are ultimately unsettling enough in their unpredictability to effectuate changes (for better or for worse).

Following this logic, the monster has entered the theoretical landscape of poststructuralism, posthumanism and critical disability studies in the figure of Haraway’s cyborg and thus in a reclaiming and repurposing of the notion of the “freak (of nature)”. In the same year as Cohen, 1996, Margaret Shildrick writes, at the intersection of Haraway’s cyborg feminism and what is to become the field of “somatechnics” mentioned above, at the interface between posthuman embodiment, prosthesis, biotechnology, and new feminist materialism, in “Posthumanism and the Monstrous Body”: “what monsters show is the other of the humanist subject”.<sup>43</sup> And even though monsters cannot exist apart from “normal” bodies, they are nevertheless “excessive to the binary, uncontained by any fixed category of exclusion”.<sup>44</sup> The reversal that they threaten, namely the insight that there

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<sup>36</sup> Halberstam & Livingston, *Posthuman Bodies*, 2-3 (quoting Jacques Derrida, *Writing and Difference* (Chicago: University of Chicago Press, 1978): 293).

<sup>37</sup> Donna McCormack, “The Monstrous and Critical Posthumanism”, in: Stefan Herbrechter et al, eds., *The Palgrave Handbook of Critical Posthumanism, Volume 1* (Cham: Springer, 2022): 249-274 [253].

<sup>38</sup> Cf. Rosemarie Garland Thomson, *Freakery: Cultural Spectacles of the Extraordinary Body* (New York: New York University Press, 1996).

<sup>39</sup> Jeffrey Jerome Cohen, “Preface: In a Time of Monsters”, in: Cohen, ed. *Monster Theory: Reading Culture* (Minneapolis: University of Minnesota Press, 1996): ix.

<sup>40</sup> Cohen, “Monster Theory: Seven Theses”, in Cohen, *Monster Theory*: 1-25 [7].

<sup>41</sup> *Ibid.*, p. 19.

<sup>42</sup> In another but not entirely unrelated context, however. Cf. Jacques Derrida, “Some Statements and Truisms about Neologisms, Newisms, Postisms, Parasitisms, and Other Small Seismisms”, in: David Carroll, ed., *The States of ‘Theory’: History, Art, and Critical Discourse* (Stanford: Stanford University Press, 1990): 63-94 [79].

<sup>43</sup> Margaret Shildrick, “Posthumanism and the Monstrous Body”, *Body & Society* 2.1: 1-15 [2].

<sup>44</sup> *Ibid.*, p. 8.

are no “normal” or “natural” bodies, eventually leads to the realisation that “there are only hybrid bodies, restless bodies, becoming-bodies, cyborg-bodies; bodies, in other words, that always resist definition”.<sup>45</sup> This leads Shildrick to invite ‘us’ – and this could be directed at any kind of minority that strategically embraces and appropriates its own “posthuman” monstrosity, be it women, people of colour, or the disabled – “to see in monsters something other than an external hazard: rather let us look for the imaginative *and* embodied potential already within ourselves”.<sup>46</sup>

Shildrick follows up on this in her *Embodying the Monster* where she links the disruptive force of the monster to the “vulnerability” of the self,<sup>47</sup> who is always already inhabited by it and who awaits its recognition and thus justice:

In the face of the potential vulnerabilities exposed by the embodied other, the ideal of the humanist subject of modernity, supposedly fully present to himself, self-sufficient and rational, can be maintained only on the basis of a series of putative exclusions. That which is different must be located outside the boundaries of the proper, in black people, in foreigners, in animals, in the congenitally disabled, and in women; in short in all those who might be seen as monstrous.<sup>48</sup>

Add to this the monstrosity of the “machine”, the “object”, the “cyborg” etc. and you arrive, in the same year as Shildrick’s *Embodying the Monster*, namely 2002, at Elaine Graham’s, *Representations of the Post/Human: Monsters, Aliens and Others in Popular Culture*, which opens by saying:

Western culture may be confronting a technologically mediated “crisis” of human uniqueness, but a more satisfactory way of framing the situation might be in terms of the blurring of the boundaries, a dissolution of the “ontological hygiene” by which for the past three hundred years Western culture has drawn the fault-lines that separate humans, nature and machines.<sup>49</sup>

It is this combination of introjected monstrosity and technicity, this re-evaluation of vulnerability into something liberating and, in fact, strengthening and calling for justice that joins posthumanism’s and disability studies’s cause – iconically figured in both the cyborg and the prosthetic or bionic “humachine”.<sup>50</sup>

Prosthesisation and cyborgisation function as the major “crossovers” between critical posthumanism and disability studies. Strategic uses of the prosthesis as an “originary supplement”, in the Derridean sense, i.e. both as a sign of replacement and enhancement,<sup>51</sup> or the prosthetic body seen as assemblage (Braidotti),<sup>52</sup> also in connection with the notion of “originary technicity” (Leroi-Gourhan, Derrida, Stiegler);<sup>53</sup> as well as prosthetics as the extension and exteriorisation of embodiment;<sup>54</sup> all of these occurring under biopolitical and somatechnological conditions and, more recently,

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<sup>45</sup> *Ibid.*, p. 9.

<sup>46</sup> *Ibid.*, p. 13.

<sup>47</sup> Shildrick, *Embodying the Monster: Encounters with the Vulnerable Self* (London: Sage, 2002).

<sup>48</sup> *Ibid.*, p. 5.

<sup>49</sup> Elaine Graham, *Representations of the Post/Human: Monsters, Aliens and Others in Popular Culture* (Manchester: Manchester University Press, 2002): 11.

<sup>50</sup> This is Mark Poster’s term in *Information Please: Culture and Politics in the Age of Digital Machines* (Durham: Duke University Press, 2006): 36.

<sup>51</sup> Cf. David Wills, *Prosthesis* (Stanford: Stanford University Press, 1995): *passim*.

<sup>52</sup> Cf. Braidotti, “A Theoretical Framework for the Critical Posthumanities”, *Theory, Culture & Society* 36.6 (2019): 31-61 [32-33].

<sup>53</sup> Cf. the note on originary technicity above. See also chapter...

<sup>54</sup> Cf. Marshall McLuhan, *Understanding Media: The Extensions of Man* [1964] (Cambridge: MIT Press, 1994), and Bernard Stiegler, *Technics and Time* 1.

accompanied by an increasing “internalisation” of the prosthesis, as Margaret Shildrick points out in her more recent work:

The once-astonishing notion of the cyborg as a form of technologized human being is now greatly complicated by the realisation that biotechnologies, nanotechnologies, information technologies and cognitive science are potentially mutually implicated in a model that raises the fundamental philosophical question of what constitutes the human as such.<sup>55</sup>

This is of course another blow to the fantasy of the bodily integrity of the autonomous humanist self, which is now further undermined at a micro-biological level and subjected to what one might call “micro-bio-politics”, where micro-organisms not only outnumber species-specific cells but also have undoubtedly played a key role in the evolution of complex life forms, the human included. It seems that bacteria are in fact the true “centre-piece” of the biological world and, despite all modern efforts, remain the ultimate “prostheses” of biological life forms – a humbling “disability” that transcends all forms of “ableism”.<sup>56</sup>

#### *From Disability to Critical Disability to Posthuman(ist) Disability Studies?*

[I]mpairment is part of the human condition.<sup>57</sup>

By claiming that all humans are somehow “impaired” disability studies voice the desire of the disabled for inclusion within humanism; it is a demand for full “membership” in the “human” community too often denied. Like other social minorities based on gender, sexuality, race, age etc., the minority designated as “disabled”, it seems, has everything to gain to be recognized and included in the category of the “human”. By challenging the exclusionary practices of humanist “ableism”, the strategy of what has come to be known as the “social model” in disability studies is to raise the stakes: all humans are “impaired” in one way or another; and seen from this vantage point there is no “impairment” or “disability” as such, only disabling practices and contexts. It is in this sense that the specific “limitations” to which disabled people are subject also challenge the normative-ableist notion of “humanity”. It is a challenge that goes against humanism’s idea of human perfectibility, an essential and normalising human “nature” based on full “autonomy”.<sup>58</sup> In participating in the questioning of “what does it mean to be human?” and in challenging the “autonomy” of the humanist ideal of the “liberal” and fully-abled “self”,<sup>59</sup> disability studies has found an ally, albeit a somewhat uncomfortable one, in posthumanism:

The social model [of disability] is founded on two key assumptions: First, people with physical, sensory, and cognitive impairments experience systemic forms of oppression, discrimination, and marginalization. Many people with impairments are disabled by societies that often

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<sup>55</sup> Margaret Shildrick, *Visceral Prostheses: Somatechnics and Posthuman Embodiment* (London: Bloomsbury, 2022): 7.

<sup>56</sup> Cf. Lynn Margulis and Dorion Sagan, *What Is Life?* (Berkeley: University of California Press, 2000); see also my commentary in “Microbes”, in: Lynn Turner, Undine Sellbach and Ron Broglio, eds., *The Edinburgh Companion to Animal Studies*, (Edinburgh: EUP, 2018): 354-366; and the later version of “Microbes R Us: David Eagleman’s *Sum*, Jim Crace’s *Being Dead* and the Medical Humanities”, *Solidarities with the Non/Human*, 235-253.

<sup>57</sup> Anne-Marie Callus, “The Contribution of Disability Studies to the New Humanities”, *Word & Text* 10 (2020): 70-90 [71].

<sup>58</sup> For a critique of humanist notions of perfectibility see my “Perfectibilities, or, How (Not) to Improve Humans”, *(Un)Learning to Be Human? Collected Essays on Critical Posthumanism 1* (Leiden: Brill, 2024): 208-234.

<sup>59</sup> Cf. Paul van Tright, Jacqueline Kool and Alice Schippers, “Humanity as Contested Concept: Relations between Disability and ‘Being Human’”, *Social Inclusion* 4.4 (2016): 125-128.

dehumanize disabled people... [= disablism]... Second, while disabled people face daily encounters with disablism, they are not cultural dopes: they have the capacities, potential, and resources to survive and thrive. The social model encourages us to attend to the capacities of disabled people. So, we are sensitive to the disabling impacts of wider society that threaten to de-skill disabled people as they negotiate their daily lives. Disability is not simply an inherent part of the human condition. Disability draws our attention to the ways in which human survival and flourishing are dependent upon key interrelationships with other humans, nonhumans, technologies, and the environment.<sup>60</sup>

In what one might thus describe as a partial and often hesitant embrace of posthumanist versions of the critique of humanist exclusionary practices towards its “others”, disability studies and posthumanism have moved closer together, also because some theorists of the posthuman, especially Rosi Braidotti, have encouraged this alliance, since “[d]isability is but one cultural artefact that signifies ‘the demise of humanism’”, in Braidotti’s words.<sup>61</sup> In fact, for Braidotti, disability studies plays a key role in her political use of the posthuman figure:

The fast-changing field of disability studies is almost emblematic of the posthuman predicament. Ever mindful that we do not yet know what a body can do, disability studies combine the critique of normative bodily models with the advocacy of new, creative models of embodiment.<sup>62</sup>

It is no great surprise, then, that disability studies have been returning the compliment so to speak. In particular, Dan Goodley and the team of contributors to the iHuman centre at the University of Sheffield have been pushing this alignment by asking: “What does it mean to be human in the twenty-first century and in what ways does disability enhance these meanings?”<sup>63</sup> Answering their own question Goodley et al. propose that:

Disability can be considered to be the quintessential posthuman condition. People with sensory, physical, and cognitive impairments enjoy a history of decentered personhood that has necessarily called upon interconnections with a host of animate and inanimate others. [...] we make the case for a posthumanist disability studies: one that emphasizes the ethical, theoretical, and political interplay between critical posthumanism and critical disability studies.<sup>64</sup>

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<sup>60</sup> Dan Goodley et al., “Posthumanist Disability Studies”, in: Stefan Herbrechter et al., eds., *The Palgrave Handbook of Critical Posthumanism*, Volume 2 (Cham: Palgrave, 2022): 793-822 [795]].

<sup>61</sup> Rosi Braidotti, *The Posthuman* (Cambridge: Polity, 2013): 151; see also Braidotti’s earlier “Deleuzian” intervention, together with Griet Roets, “Nomadology and Subjectivity: Deleuze, Guattari and Critical Disability Studies”, in: Dan Goodley, Bill Hughes and Lennard Davis, eds., *Disability and Social Theory: New Developments and Directions* (Houndmills: Palgrave Macmillan, 2012): 161-178. While the “posthuman” is absent from this piece there is a reference to Haraway and to the “project of affirmative politics that celebrates embodied diversity”, which welcomes critical disability studies’ embracing of “impairment” and its complex and “vitalist” theorisation as a possibility to open up “unexplored territories of our collective subjectivity” (p. 175).

<sup>62</sup> *Ibid.*, p. 146. For a perceptive critique of Braidotti’s influence on disability studies see Thomas Abrams, “Braidotti, Spinoza and Disability Studies after the Human”, *History of the Human Sciences* 30.5 (2017): 86-103.

<sup>63</sup> Dan Goodley, Rebecca Lawthom, Kirsty Liddiard and Katherine Runswick-Cole, “Posthuman Disability and Dishuman Studies”, in: Rosi Braidotti and Maria Hlavajova eds., *Posthuman Glossary* (London: Bloomsbury, 2018): 342-345 [342]; for information on the iHuman see: <https://www.sheffield.ac.uk/ihuman> (accessed 22/01/2025).

<sup>64</sup> Goodley et al., “Posthumanist Disability Studies”, in: *The Palgrave Handbook of Critical Posthumanism*, p. 794. This echoes a statement from 2014: “Our sitpoint is that disability is the quintessential posthuman condition: because it calls for new ontologies, ways of relating, living and dying. Posthuman and critical disability studies share an antithetical attitude towards the taken-for-granted, ideological and normative

The theoretical engagement with *critical* posthumanism (à la Braidotti, who designates her practice as “critical posthuman studies”) coincides with the move towards *critical* disability studies. The addition of the “critical”, for Goodley is sanctioned by what he calls “dissing the dis” in “disabled” (“dis/ability”), which has the added benefit of problematizing humanist normalcy (i.e. “dis/humanism”):

Disability has the radical potential to trouble the normative, rational, independent, autonomous subject that is often imagined when the human is evoked, social policies are made, social and human sciences are developed and forms of activism are enacted. This is the *dis* of our dis/human approach.<sup>65</sup>

The challenge, however, remains of how to do justice to the double claim towards or the double alliance of (critical) disability studies with the liberatory potential of both, a recognition as fully human *and* as a posthuman challenge to that human. In other words, how to do justice to the fact that:

[D]isabled people will continue to fight to be recognized as humans (in the humanist sense...), 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.<sup>66</sup>

The common ground between critical posthumanism and critical disability studies as seen by Goodley et al. and informed mainly by Braidotti (and maybe the Haraway of the “Cyborg Manifesto” period) thus lies in the kind of feminist new materialism and its notion of relational and “entangled” embodiment, its very specific take on “biopolitics” (or rather a new vitalist zoopolitics based on the shared “zoé” condition of all living entities, to speak with Braidotti, or, in other words, of an affirmative solidarity of “the living”).<sup>67</sup> Together, these challenge and “decentre” the liberal humanist

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under-girdings of what it means to be a valued citizen of society”, Dan Goodley, Lawthron and Runswick Cole, “Posthuman Disability Studies”, *Subjectivity* 7.4 (2014): 342-361 [348].

<sup>65</sup> Dan Goodley and Katherine Runswick-Cole, “Becoming dishuman: thinking about the human through dis/ability”, *Discourse* 37.1 (2016): 1-15 [2].

<sup>66</sup> Goodley et al., “Posthumanist Disability Studies”, pp. 357-358. This double-edged nature of disability studies’ fight is also articulated in Goodley et al.’s “DisHuman Manifesto”, available at: <https://www.sheffield.ac.uk/ihuman/our-work/marginalised-humans/dishuman> (accessed 22/01/2025) in particular the statement that the dis/human “keeps 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”. See also Goodley’s *Dis/Ability Studies: Theorising Disablism and Ableism* (London: Routledge, 2014), as well as Goodley and Katherine Runswick-Cole, “Becoming Dishuman: Thinking about the Human through Dis/ability”, *Discourse* 37.1 (2016): 1-15, which explicitly links the “dishuman” to the “post-human condition” (p. 5) and the associated desire to “move to a time when thinking about the human will always involve thinking about disability” (p. 13), although, as we will see, this might shift disability studies somewhat uncomfortably towards *transhumanism*, rather than *critical posthumanism* (as can also be seen in Goodley et al.’s “The Desire for New Humanisms”, *Journal of Disability Studies in Education* 1 (2021): 125-144).

<sup>67</sup> See David Mitchell’s and Sharon Snyder’s work for such a biopolitical angle; David T. Mitchell and Sharon L. Snyder, *The Biopolitics of Disability: Neoliberalism, Ablenationalism and Peripheral Embodiment* (Ann Arbor: University of Michigan Press, 2015); Mitchell, Snyder and Susan Antebi, eds., *The Matter of Disability: Materiality, Biopolitics, Crip Affect* (Ann Arbor: University of Michigan Press, 2019); and Mitchell and Snyder, “Disability, Neo-Materialism, and the Biopolitics of the Project of Western Man: Toward a Posthumanist Disability Theory”, in: Mads Rosendahl Thomsen and Jacob Wamberg, eds., *The Bloomsbury Handbook of Posthumanism* (London: Bloomsbury, 2020): 197-214. For Braidotti’s notion of *zoé* (as opposed to *bios*) see her “The Politics of Life as Bios/Zoe”, in: Anneke Smelik and Nina Lykke, eds., *Bits of Life. Feminism at the Intersections of Media, Bioscience and Technology* (Washington: University of Washington Press, 2008): 179-196.

notion of the autonomous and therefore “ableist” human subject – at least that’s the theory, as we have seen.<sup>68</sup>

That this alliance is quite “tricky” however, can be seen in the ambiguous role the (Harawayan) cyborg figure and the notion of the (technological) prosthesis more generally play in the embrace of posthumanist “entangled” embodiment and neomaterialist bio(zoe)politics within at least some (critical) disability studies corners. Technology is traditionally associated with the kind of “normalization, rehabilitation and cure”, or the “medicalization” of impairment that tends to ignore the “lived experience” that impaired people have with “their” prostheses and implants, as Donna Reeve points out, so that the somewhat facile statement that “we’re all cyborgs [read: disabled] now” might ring more than a little hollow.<sup>69</sup> The engagement between critical posthumanism and critical disability studies thus has to be “nuanced” and seen as rather “strategic” for both theoretical partners involved. The remainder of this chapter is going to demonstrate and illustrate this in some more detail.

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<sup>68</sup> Another strand here would be queer theory and its embrace of “queer disabled bodies” that reaches back to Halberstam & Livingston’s *Posthuman Bodies*, referred to above. Amongst the “monstrous progeny” of this early queer posthumanism also features “Crip Theory”, which sees dis/ability as a “crip space – to contemplate the ways in which the human being is being reshaped through processes of culture, technology, politics and globalization [which means that] disability is a quintessentially posthuman condition because of its crip potential” (Goodley et al., “Posthuman Disability Studies and Dishuman Studies”, in: Rosi Braidotti and Maria Hlavajova, eds., *Posthuman Glossary* (London: Bloomsbury, 2018): 342-345 [344]). This is also a reference to Robert McRuer’s influential, *Crip Theory: Cultural Signs of Queerness and Disability* (New York: New York University Press, 2006). Queerness and neomaterialist entanglement and the biopolitics of living on a “damaged” [i.e. “disabled”] planet, have more recently been combined in some versions of crip theory, “by marking the contingent relational doings of mattering and meaning that come to constitute disability, such as through the entangled and intimate interdependencies of disabled people with technologies, animals and environments”; see for example Kelly Fritsch’s entry on “Crip Theory”, in: Rosi Braidotti, Emily Jones and Goda Klumbýté, eds., *More Posthuman Glossary* (London: Bloomsbury, 2023): 25-28 [26].

<sup>69</sup> See Donna Reeve, “Cyborgs, Cripples and iCrip: Reflections on the Contribution of Haraway to Disability Studies”, in: Dan Goodley, Bill Hughes and Lennard Davis, eds., *Disability and Social Theory: New Developments and Directions* (Houndmills: Palgrave Macmillan, 2012): 91-111. Moreover, a push towards cyborgisation to overcome whatever is seen as an “impairment” is precisely the transhumanist trajectory of generalised “enhancement”. There are good reasons for the “impaired” to resist the often euphoric and techno-utopian promises of a more-than-human abled body as a continuation of the kind of (future) normalcy disability studies has been challenging. The pressure to self-augment to become what is perceived as a “full” member of human society is likely to increase, so is the danger of becoming sucked into the smart circuits of “surveillance” that technological prostheses of a digital and connected kind tend to make possible. In short, cyborgisation thus understood might actually be a mere displacement and exacerbation of the kind of “somatophobia” referred to above. The accent in more techno-realist corners of disability studies has therefore been on the phenomenological and “everyday experience” of prosthetic embodiments. See for example Gill Haddow, *Embodiment and Everyday Cyborgs: Technologies that Alter Subjectivity* (Manchester: Manchester University Press, 2021). A rather telling example is Jillian Weise’s attempt to wrest the enabling notion of the cyborg from “transhumanists” like Ray Kurzweil, but also from the kind of iconic usages of the cyborg as a subversive feminist figure that Haraway encourages, and instead return it to the disabled, or “actual cyborgs” with an *actual* “interface”. She refers to people like Kurzweil and Haraway as “counterfeit cyborgs”, or, “tryborgs”, since they are not *really* disabled, do not have the experience of a techno-physical *interface* and therefore use the term merely as a *metaphor* because they *want* to be cyborgs. One might also call that “disability envy” – something that quite a few *transhumanists* might actually and ironically suffer from (more on this below). See Jillian Weise, “The Dawn of the ‘Tryborg’”, *The New York Times* online, 30 November 2016; available at: <https://www.nytimes.com/2016/11/30/opinion/the-dawn-of-the-tryborg.html> (accessed 23/01/2025), and her “Common Cyborg”, *Granta* online 24 September 2024; available at: <https://granta.com/common-cyborg/> (accessed 23/01/2025). Needless to say how problematic the distinction between “real” cyborg and “counterfeit” tryborg is from a theoretical posthumanist point of view.

### *Some “Predicaments” for a Critically Posthuman(ist) Disability Studies*

The realization of our interdependence and creative relationality (between people, technologies, and the world) that critical posthumanism posits and that the disability experience exemplifies ought to serve as a roadmap for a posthuman critique of technomedicine. It represents a critical and affirmative voice contra the all-encompassing search for cures or transhumanist utopias of a perfected posthuman race.<sup>70</sup>

The first predicament lies in the fact that, for critical posthumanism, disability risks being a rather unreliable ally in its critique of transhumanism due to the ambiguous nature of (technological) enhancement with regard to disability and impairment.

#### *The Enhancement Predicament*

In relation to contemporary biopolitics and the neoliberal commodification of enhancement technologies critical posthumanism is opposed to transhumanism, whereas disability studies remains more ambivalent towards transhumanist techno-utopian ambitions.

Michael Hauskeller describes the logical flaw at the heart of transhumanist thinking about enhancement:

How can it possibly be wrong to create something that is “*better*”? (...) Speaking of “making better human beings” implies not only that humans are different from each other, but also that there are better and worse ways of being human. It only makes sense to speak of better humans if there are, at least theoretically, good humans and not-so-good humans. This means that there must be some standard by which to measure the quality of a human. But is there?<sup>71</sup>

The main problem with this is that “[i]f human enhancement is understood as the enhancement of human beings not merely as performers of certain tasks, but rather as humans – if it is, in other words, understood as the ‘making of better humans’ – then any attempt at enhancing a particular capacity in a person that does not also enhance the human as such must be regarded as a failed attempt”.<sup>72</sup> Enhancement therefore always has a moral dimension in the sense that the enhanced human is always understood as being a “better human *qua* human”, even though “it is not at all obvious what we need to change in human beings to increase their happiness or at least the likelihood of their being happy”.<sup>73</sup> Hauskeller is right, in my view, to associate this moral idea of enhancement and perfectibility with a specific form of (gnostic) *ressentiment*, because: “[o]nly if we

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<sup>70</sup> Martin Boucher, “Dis/abled reflections on posthumanism and biotech”, in: Christine Daigle and Terrance H. McDonald, eds., *From Deleuze and Guattari to Posthumanism: Philosophies of Immanence* (London: Bloomsbury, 2022): 226-249 [243].

<sup>71</sup> Michael Hauskeller, *Better Humans? Understanding the Enhancement Project* (Durham: Acumen, 2013): 1, 3.

<sup>72</sup> *Ibid.*, p. 8.

<sup>73</sup> *Ibid.*, p. 10.

feel that we have been treated unfairly by the world (and possibly its creator) can we believe that we are *entitled* to posthuman bliss”.<sup>74</sup>

According to a transhumanist definition an enhanced “transhuman” is “someone actively preparing for becoming posthuman. Someone who is informed enough to see radical future possibilities and plans ahead for them, and who takes every current option for self-enhancement”. While accomplished “posthumans” are “persons of unprecedented physical, intellectual, and psychological capacity, self-programming, self-constituting, potentially immortal, unlimited individuals”.<sup>75</sup> Apart from the barely disguised, pseudo-religious and missionary tone that stops short of saying that becoming-posthuman is everyone’s duty and destiny, it is also, as one might put it, an attempt at hijacking humanity’s future, as Nicolas Le Dévédec explains:

Never does transhumanism, whatever its variation, seriously consider that it is this very future – the capitalist future of indefinite growth and technical progress – that is fundamentally maladapted to establishing a truly human society. Actually, the enhanced human is the typical ideal not of an emancipated human, but a human perfectly adapted to the new biotechnological spirit of capitalism.<sup>76</sup>

Strongly opposed to transhumanism, critical posthumanism, instead, embraces embodied vulnerability. Posthumanism despite its deep engagement with posthumanising technologies nevertheless largely remains committed to a biocentrism (or a “zoopolitics”, in Braidotti’s term) whereas predominantly techno-euphoric transhumanism continues and even exacerbates the traditional Western humanist trajectory of somatophobia (or hatred of the body).

In this context of enhancement, perfectibility and the human future, disability presents transhumanism with something of a paradox in the sense that: “Disability (...) presents a challenge to posthuman enhancement – if one wishes to go beyond the human as we know her, how do we know whether what lies beyond is enhancement or disability”, as Michael Wee asks.<sup>77</sup> Moreover:

As all bodies become in some way enhanced bodies, the definition of what should and shouldn’t be considered a disabled body has been undergoing a subtle shift, and with it, the perceptions of what is and isn’t a “human” body, and even the very need for delineation of such a category... People with disabilities are at the forefront of our debate around our increasingly hybridized – man-machine – future, both its fears and hopes.<sup>78</sup>

Magda Romanska points out that this emerging “posthuman aesthetic of the bionic body” is also “disrupting our perception of what the disabled body is, and which category on the hierarchy of rights does it belong to – while also putting into question the capacities and limits of the non-disabled body”.<sup>79</sup> In creating an “aporia” that constitutes the “inscrutability and limits of human self-

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<sup>74</sup> *Ibid.*, p. 188. For an overview of how transhumanism bases itself on the principles of (human) perfectibility and (technological) transcendence see the “Transhumanist Declaration” on the Humanity plus (H+) site at <https://www.humanityplus.org/the-transhumanist-declaration> (accessed 26/01/25).

<sup>75</sup> Max Moore, “Lextropicon”, cited in Damien Broderick, “Trans and Post”, in: Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and contemporary Essays on the Science, Technology and Philosophy of the Human Future* (Hoboken: Wiley & Sons, 2013): 430-437 [430].

<sup>76</sup> Nicolas Le Dévédec, “Unfit for the future? The depoliticization of human perfectibility, from the Enlightenment to transhumanism”, *European Journal of Social Theory* 21.4 (2018): 488-507 [501].

<sup>77</sup> Michael Wee, “Therapy, Enhancement, and the Social Model of Disability”, in: Danielle Sands, ed., *Bioethics and the Posthumanities* (London: Routledge, 2022): 15-24 [22].

<sup>78</sup> Magda Romanska, “The Bionic Body: Technology, Disability and Posthumanism”, *Body, Space & Technology* 23.1 (2024): 1-17 [4-5].

<sup>79</sup> *Ibid.*, p. 7-8.



conception”, according to Romanska, critical disability studies can “offer a blueprint for understanding the technological processes of humanization and dehumanization that the disabled have historically experienced and that are increasingly becoming – in the age of new tech – the ethical challenge of our new posthuman condition”.<sup>80</sup> This is readable in the way in which prosthetics has been moving away from the creation of “limbs that would serve as visual stand-ins for missing limbs that best mimicked human flesh and form” to prosthetic devices that “often look as ‘unhuman’ as possible” and whose capacities “put into question the capacities and limits of the non-disabled body” and “disrupt what it means, visually, to be human, emphasizing the hybrid nature of the human-prosthetic mode of being that we all came to inhabit”.<sup>81</sup> I am quoting and paraphrasing Romanska at length here because I believe her position is quite representative of why parts of critical disability studies (and critical posthumanism in turn) are quite enthusiastic about what disability, prosthetics and enhancement can do, at least conceptually, for a further decentring of the human in the context of the so-called “posthuman condition”. To quote Romanska again, “critical posthuman disability studies” is:

A field well-equipped to further untangle and reconceptualise the ethical, legal, and philosophical boundaries of human enhancement, species belonging, life and death, and human rights. The posthuman biomimicry, and the prosthetic aspects of digital and AI technologies presuppose a form of disabling of the human body: a body without any connection to some type of machine is an inferior body.<sup>82</sup>

It is no coincidence that Romanska refers to Hayles’s famous statement about what exactly constitutes a “posthuman view”, namely the idea that the body is “the original prosthesis we all learn to manipulate”, so that “extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born”.<sup>83</sup> However, while Hayles originally kept a somewhat critical, maybe even ironic distance, at the time, this notion of techno-embodiment has since become a very powerful “(techno-)ideology” that increasingly crosses over from transhumanist corners to more popular beliefs and is becoming something like a general consensus: why be happy with the body you are born with, since all bodies are somehow “deficient” from the point of view of the enhancement and prosthesis “industry”?

To divide the world into technologically “progressive”, pro-enhancement advocates and technophobic “bioconservatives” serves the purpose but is in fact far too simplistic.<sup>84</sup> It is not as if the traditional threat of “dehumanisation” of the “abnormal” had suddenly disappeared only because “we” are all thought to be somehow “deficient” vis-à-vis the “machine” or the “AI”. Instead this throws “us” able-disabled back to the conundrum where, on the one hand, the humanist notion of the human has traditionally been too exclusive and too normative and is thus in need of (at least conceptual) “enhancement”, while, on the other hand, the idea of “enhancement” is taken over by those who would have at least some of “us” acquire “superhuman” abilities (thus threatening to turn the “unenhanced” into the new disabled). Consequently, as Jan Grue writes: “[i]n the field of disability studies, there is considerable resistance to the posthumanist turn (...) on the grounds that the erasure of the ‘human’ as an indicator of intrinsic value”, while transhumanism, ironically maybe,

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<sup>80</sup> *Ibid.*, p. 8.

<sup>81</sup> *Ibid.*, pp. 8-11.

<sup>82</sup> *Ibid.*, p. 12.

<sup>83</sup> Cf. Hayles, *How We Became Posthuman*, 2-3; cited in Romanska, p. 9.

<sup>84</sup> Cf. Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution* (London: Profile Books, 2002) and Jürgen Habermas, *The Future of Human Nature* (Cambridge: Polity, 2003), and the polemics they started about the return of eugenics and the future class struggle between the enhanced and the unenhanced.

seems attractive to disability studies by “extend[ing] much of the current human rights approach to disability” through a “tendency toward *utopian medicalization*”.<sup>85</sup> Unfortunately, Grue does not distinguish clearly enough between (critical) posthumanism and transhumanism here.<sup>86</sup> However, what he says about transhumanism in relation to disability is correct, namely that:

transhumanism takes the stance that the suffering caused by embodiment simply should not exist, and that this problem must be resolved both on a species level and an individual level. In this aim, transhumanism clearly aligns with the old ideals of eugenics, albeit augmented by high hopes for the potential of artificial intelligence.<sup>87</sup>

Being animal – i.e. sharing our embodied biological condition with nonhuman animals – is seen by transhumanism as “to be disabled, to not be able to do what we would need to do to live a truly good life”, as Michael Hauskeller writes.<sup>88</sup> Transhumanists derive a moral obligation to enhance the human from this condition, or to “heal” the human of the “disease of being human”.

As Grue points out, the utopian drift of the apparent moral imperative to enhance as “curative” is closely connected to an ideology of “medicalisation” and is thus usually framed by a “bioethical” discussion. An especially complex set of questions here arise from the possibility Sarah Chan articulates when she asks: “could one person’s disease of disability be another’s enhancement? Certainly, if we reject normative claims about ‘species-typical’ or ‘proper’ functioning, biology or *telos*...”<sup>89</sup> When it thus comes to enhancement, one should maybe ask – following the logic of the social model of disability which says that individual impairment is not only produced by physical limitation but also by external conditions: “what is it about the context that makes [a particular intervention an enhancement], and how should we respond to this?”<sup>90</sup> There is something very paternalistic about the idea that some people know better than others, including those who apparently “suffer” from a perceived “impairment”, about the ensuing “moral obligation” to augment and enhance, and about pretending to know in what exactly the benefit of technological intervention lies (cf. the example of cochlear implants below as a case in point).<sup>91</sup> Instead, as David Roden and Sarah Chan suggest:

One we go beyond avoiding the sorts of condition that are sufficiently bad that they would be universally undesirable (and the set of such conditions might be a much smaller one than we imagine), there is a great deal we could be doing to enable people to live better lives that does not involve these technologies at all.<sup>92</sup>

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<sup>85</sup> Jan Grue, “Rethinking Utopia: Posthumanism, Transhumanism, and Disability”, in: Inger Marie Lid, Edward Steinfield and Michael Rembis, eds., *Rethinking Disability and Human Rights: Participation, Equality and Citizenship* (London: Routledge, 2013): 45-59 [47-48]. On the aspect of medicalization and the relationship between disability and the emerging biotechnologies see Martin Boucher, “Dis/abled Reflections on Posthumanism and Biotech”, in: Christine Daigle and Terrance H. McDonald, *From Deleuze and Guattari to Posthumanism: Philosophies of Immanence* (London: Bloomsbury, 2022): 226-249.

<sup>86</sup> It is not true, in my view, that, at least for *critical* posthumanism, “there is nothing especially valuable about being human”, however; cf. Grue, “Rethinking Utopia”, 52.

<sup>87</sup> *Ibid.*, p. 52.

<sup>88</sup> Michael Hauskeller, *Mythologies of Transhumanism* (Houndmills: Palgrave Macmillan, 2016): 121.

<sup>89</sup> Sarah Chan, Therapy, Enhancement, and the Posthuman, in: Mads Rosendahl Thomsen and Jacob Wamberg, eds., *The Bloomsbury Handbook of Posthumanism* (London: Bloomsbury, 2020): 215-230.

<sup>90</sup> *Ibid.*, 225.

<sup>91</sup> Martin Boucher makes a related point in suggesting: “There is no other way to know what legitimate uses of technologies are *other than actively seeking and integrating the perspectives of people living with disabilities*”; Boucher, “Dis/abled Reflections on Posthumanism and Biotech”, 235.

<sup>92</sup> David Roden and Sarah Chan, “Rethinking the Posthuman in Bioethics”, in: Danielle Sands, ed. *Bioethics and the Posthumanities* (London: Routledge, 2022): 25-40.

Human enhancement and augmentation could well be thought entirely outside technological “solutions”, precisely in the way critical posthumanism envisages a “multi-species flourishing” through changing “our” relationship to nonhuman others and nature, for example. As Roden and Chan pursue: “in our pursuit of unending technological fixes for our existence, we may lose sight of what is actually valuable about that existence... [and that] in viewing the state of ‘human being’ as inherently pathological, we disvalue something that we ought to value”.<sup>93</sup>

However, there will be objections from a disability studies side, namely that embracing human vulnerability, and valuing the human as part of an entangled human-nonhuman “meshwork”, as critical posthumanism tends to do, is a somewhat hypocritical standpoint that may be easily affordable by the “normally abled”, while challenging the boundary between human and nonhuman remains a rather double-edged sword for disabled people who actually have no “choice” about their vulnerabilities. This is where the second predicament becomes relevant, i.e. critical posthumanism’s emphasis on a shared “animality” between humans and nonhumans to counter the transhumanist desire to extricate humans out of their so-called biological “impairment” through an alliance with high-tech.

### *The Animality Predicament*

Under “posthuman” conditions both the boundaries that have traditionally conceptually secured the autonomy, exceptionality and radical difference of the human, namely that between the human and the nonhuman animal and that between the human and the machine, are both threatened with erasure. However, there is no symmetry here, i.e. the boundary between human and animal functions differently from the one between human and machine. Both also lead to very different forms of repressive reactions, both contain very different kinds of “promises” if transgressed. With nonhuman animals humans share their “biology” and a reliance on embodied, organically based metabolisms, the need for a breathable atmosphere, food intake and so on, all the vital functions machines, precisely do not have. In modern times, the “rise of the machine” has seemingly been unstoppable while the fear of human “replacement” by machines and the fear of the “mechanical” as a kind of third state between life and death more generally, goes back even further. More recently, especially since the advent of machines that are increasingly seen as “intelligent”, becoming-machine, for transhumanists and a certain faction of posthumanists as well I suppose, has become the main thrust of what it might mean to be posthuman in the future, either as a cyborg or an entirely disembodied silicon-based form of life (leaving the “base” aspects of a “carbon-existence” behind). The excitement that a hybridisation with the machine in the form of a becoming-cyborg causes in contemporary technoculture (of which the enhancement debate described above is only one but major fallout), has almost obliterated earlier “mythological” forms of hybridisation between humans and animals: chimaera. This points towards an imbalance in the structural triangle of human-animal-machine that is very much in favour of the latter. Becoming-animal, not only for transhumanists, is much less desirable than becoming-machine, it seems. There is thus a clear hierarchy at work that sees the human as something that has to be pulled “upwards” to form alliances with the machine to stop it from moving “downwards” by becoming-animal. Dehumanisation traditionally concerns crossing the boundary between refined, civilised moral beings and savage animal “brutes”, whereas the dehumanisation process envisaged by transhumanists is more seen as a rematerialisation, a reinvention or even the fulfilment of a “destiny” for humans and this to achieve their full (etherial) potential.

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<sup>93</sup> *Ibid.*, p. 34.

This is why critical posthumanism, strategically, stresses our shared constitution with and our responsibility for nonhuman fellow animals and places such an emphasis on a critique of contemporary “biopolitics”, as Cary Wolfe writes: “to live under biopolitics is to live in a situation in which we are all always already (potential) ‘animals’ before the law – not just nonhuman animals according to zoological classification, but any group of living beings that are so framed”.<sup>94</sup>

It is not even a question of animal “rights” or “animal love”, but even pure human “self-interest” should lead one to the recognition of the need to treat nonhuman animals “responsibly”, because:

As long as you take it for granted that it’s O.K. to commit violence against animals simply because of their biological designation, then that same logic will be available to you to commit violence against any other being, of whatever species, human or not, that you can characterize as a “lower” or more “primitive” form of life.<sup>95</sup>

This has obvious implications for disability studies and people with disabilities who like other minorities seen as deviant from supposedly “universal” and “ableist” norms have historically been dehumanised through processes of animalisation. One could therefore see animal cruelty and discrimination against the disabled as a form of “intersectionality” or as profoundly imbricated, as Sunaura Taylor suggests: “If animal and disability oppression are entangled, might not that mean their paths of liberation are entangled as well?”<sup>96</sup>

However, there is significant disagreement in disability studies as to how this liberation should look like and to what extent embracing, affirming and reevaluating the “animal” nature of humanity would be helping the disabled cause of being accepted as fully “human” *subjects*. Many would therefore feel ambiguous towards Cary Wolfe’s claim (and critical posthumanism more widely) that there are new and better forms of coexistence beyond the “liberal humanist subject” and that the co-operation between critical posthumanism and critical disability studies Wolfe envisages would be beneficial. In short, there would be ambivalence towards Wolfe’s critique of liberal humanism:

what animal studies and disability studies have to teach each other about who or what comes “after” the subject as it is modelled in liberal humanism (...) in the wake of this “after”, new lines of empathy, affinity, and respect between different life forms, both human and nonhuman, may be realized in ways not accountable, either philosophically or ethically, by the basic coordinates of liberal humanism.<sup>97</sup>

Michael Lundblad summarises the dilemma succinctly in his term “disanimality”:

Whether self-identified as posthumanist or not, critical ability studies and critical race studies, for example, have revealed how constructions of what it means to be human have long been wielded to discriminate against both people of colour and disabled people. As a result, advocacy movements have paradoxically needed to reclaim the humanity of certain human

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<sup>94</sup> Cary Wolfe, *Before the Law: Humans and Other Animals in a Biopolitical Frame* (Chicago: University of Chicago Press, 2013): 10.

<sup>95</sup> Cary Wolfe, interviewed by Natasha Lennard, “Is Humanism Really Humane?”, *The New York Times* (9 January 2017); <https://www.nytimes.com/2017/01/09/opinion/is-humanism-really-humane.html> (accessed 28/01/25).

<sup>96</sup> Sunaura Taylor, *Beasts of Burden: Animal and Disability Liberation* (New York: New Press, 2017): 10.

<sup>97</sup> Cary Wolfe, *What is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010): 127-128.

beings. At the same time, advocates for animals have questioned whether not being human is sufficient justification for being mistreated or killed.<sup>98</sup>

Lundblad proposes to make a virtue out of this ambivalence of becoming-(fully)-human and becoming-animal-(advocates), or this “disruptive affect” that (dis)animality provokes when he says that “I will call *disanimality*, a disruptive affect, a feeling of discomfort, a site of critique but also an opportunity for critical disability, animality, and human-animal studies to come together in more productive ways”.<sup>99</sup> The tensions that arise “when animality and disability meet”, are not easily resolvable and might be better seen as “productive” and mutually informative, Lundblad suggests, for example by seeing speciesism as a form of ableism and reclaiming animality as something positive and “solidary”, as critical posthumanism proposes,<sup>100</sup> to counteract the biopolitical regime that oppresses *both* humans *and* animals (but of course not in the same way). For Lundblad, the only way to temporarily address and at least partially resolve the problem therefore lies in a “strategic humanism”: a humanism “that might be useful for critical animal studies as well as critical disability studies – analogous to the need to continue advocating for basic human rights for disabled people – in contrast with posthumanist biopolitics, in which we can see structural analogies without demanding universal ethical principles”.<sup>101</sup> In other words, Lundblad proposes to work towards a humanism protective of human rights while being non-anthropocentric, however, not by extending human rights to nonhuman animals, as Peter Singer suggests (i.e. at the expense of disabled humans).<sup>102</sup>

This also seems to be the line of argument that Dan Goodley and his collaborators are taking vis-à-vis the animality conundrum for disability studies:

The problem is not that some categories of human are treated like animals; the problem resides in the unconscious desire of the human condition to treat animals in inhumane ways, and treat some humans as if they were animals. We think that reinvigorating discussion around human/animal relations around disability might provide the necessary conditions and impetus for revaluing animals and humans as sharing a posthuman space of becoming.<sup>103</sup>

## Conclusions

Disability captures the productive possibilities of the posthuman condition. Disability brings something politicised and critical to posthuman theory. Our sense is 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

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<sup>98</sup> Michael Lundblad, “Animality / Posthumanism / Disability: An Introduction”, *New Literary History* 51.4 (2020): v-xxi [v].

<sup>99</sup> Michael Lundblad, “Disanimality: Disability Studies and Animal Advocacy”, *New Literary History* 51.4 (2020): 765-795 [766].

<sup>100</sup> See also my *Solidarities with the Non/Human, or, Posthumanism in Literature – Collected Essays on Critical Posthumanism 2* (Leiden: Brill, 2025).

<sup>101</sup> Lundblad, “Disanimality”, 787.

<sup>102</sup> Cf. Singer’s, *Animal Liberation: A New Ethics for Our Treatment of Animals* (New York: Harper Collins, 1975) and the controversy it generated in claiming “human rights” for primates.

<sup>103</sup> Goodley, Lawthorn, Runswick-Cole, “Posthuman Disability Studies”, *Subjectivity* 7.4 (2014): 342-361 [355].

might term the posthuman. Disability politics will continue to weave in and out of human and posthuman possibilities... Disability disavows the human: it desires and rejects it...<sup>104</sup>

Are there any constructive conclusions to be drawn from the disruptive effects that an engagement by disability studies with critical posthumanism (and vice versa) causes? The way forward signalled by those representatives who engage positively and critically with the erosion of both boundaries that constitute the human, that re-evaluate both relationships we have with our “significant others” – animal and machine – seems to be in a mutual learning process that such a transdisciplinary and trans-theoretical venture might enable. A wager that David T. Mitchell and Sharon L. Snyder articulate in the following way:

Posthumanist disability theory offers an opportunity to provide a substantive theoretical reworking of the repetitive employment of impaired – read: socially marked and biologically determined as undesirable – bodies as diagnostic tools of things gone awry in their social and environmental contexts. (...) A posthumanist disability approach provides an opportunity to encounter disability more viscerally as an active participant in the transhistorical, intraspecies, and cross-cultural interactions of materiality, sociality, structures and environments.<sup>105</sup>

For the purpose of this chapter, the bottom line of such a co-operation (between critical posthumanism and critical disability studies) could at the very least help demonstrate that disability, animality, enhancement and the figure of the posthuman can be usefully employed to make visible the various degrees (and the persistence) of somatophobia at work in contemporary (neo)liberal, humanist, technocapitalist and globalised biopolitics.

To at least begin to illustrate some of these claims I want to end this chapter by looking at a by now almost classic example of posthumanist performance art and the ways in which it highlights issues of disability and somatophobia: Stelarc’s “Third Ear”, and place this within the context of the discussion around cochlear implants.

#### *From Stelarc’s “Third Ear” ...*

Probably no other performance artists has so often and so closely been associated with a certain idea of posthumanism and posthuman “cyborg” bodies as the performance artist Stelarc, whose work famously starts from the assumption that “the body is obsolete”:

It is time to question whether a bipedal, breathing body with binocular vision and a 1,400-cc brain is an adequate biological form. It cannot cope with the quantity, complexity and quality of information it has accumulated; it is intimidated by the precision, speed and power of technology, and it is biologically ill-equipped to cope with its new extraterrestrial environment.<sup>106</sup>

The development within Stelarc’s performances and thinking or commentary closely follows the one within posthumanist theory I outlined at the beginning: an early phase of (still mostly “analogue”) body suspension through carefully placed hooks through his own skin attached to wires that would keep his body “floating” in the air in various locations was followed by early and pioneering work

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<sup>104</sup> Goodley et al., “Posthuman Disability Studies”, 357-358.

<sup>105</sup> Mitchell and Snyder, “Disability, Neo-Materialism and the Biopolitics of the Project of Western Man: Towards a Posthumanist Disability Theory”, 198.

<sup>106</sup> Stelarc, “Prosthetics, Robotics and Remote Existence: Postevolutionary Strategies”, *Leonardo* 24.5 (1991): 591-595 [595].

exploring the interfacing possibilities of the human body with digital devices like for example a “third hand”, a robotic prosthesis connected to the internet allowing for “remote controlled” input through other “users” (producing an “involuntary body”), to a later, more biotechnological phase, which I want to focus on here, though his “Third Ear” project, more specifically.<sup>107</sup>

Stelarc’s “Third Ear” does maybe not quite qualify as an enhancement or augmentation of the “natural” or “normal” human ability to hear, nevertheless it is an attempt to extend the human sensorium that combines a number of explorations of agency and bodily boundaries, as well as extending conceptualisations of “life” and “living” typical for contemporary bioart, and a combination of a critique and aestheticisation of biopolitics. Stelarc provides a detailed description of the necessary procedures and his intentions in “engineering an internet organ” on his website:

I have always been intrigued about engineering a soft prosthesis using my own skin, as a permanent modification of the body architecture. The assumption being that if the body was altered it might mean adjusting its awareness. Engineering an alternate anatomical architecture, one that also performs telematically. Certainly what becomes important now is not merely the body’s identity, but its connectivity – not its mobility or location, but its interface. In these projects and performances, a prosthesis is not seen as a sign of lack but rather as a symptom of excess. As technology proliferates and microminiaturizes it becomes biocompatible in both scale and substance and is incorporated as a component of the body. These prosthetic attachments and implants are not simply replacements for a part of the body that has been traumatized or has been amputated. These are prosthetic objects that augment the body’s architecture, engineering extended operational systems of bodies and bits of bodies, spatially separated but electronically connected.<sup>108</sup>

Stelarc’s desire to move beyond earlier versions of the prosthetic in his work by integrating an additional “living” but also technological “organ” in the form of a third ear has developed over a long period of time, a development he characterises in the following terms:

The EXTRA EAR was first imaged as an ear on the side of the head. THE 1/4 SCALE EAR involved growing small replicas of my ear using living cells. And [most] recently, THE EAR ON ARM which began the surgical construction of a full-sized ear on my forearm, one that would transmit the sounds it hears.<sup>109</sup>

The various procedures that were necessary first of all to extract the cells out of which to “grow” a human ear on a scaffold – a procedure also used by the TCA Project pioneered by Oron Catts and Ionat Zurr to grow “semi-living” objects like tissue-cultured (or in vitro) meat<sup>110</sup> – and the surgical procedures to graft the ear onto Stelarc’s arm were anything but straightforward, as Stelarc explains, but once in place the ear was fitted with a microphone, it was connected to the internet “to enable a wireless connection to the Internet, making the ear a remote listening device for people in other

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<sup>107</sup> For an overview see Stelarc, “Zombies, Cyborgs and Chimeras: Alternate Anatomical Architectures”, in: Chris Hables Gray, Heidi J. Figueroa-Sarriera and Steven Mentor, eds., *Modified: Living as a Cyborg* (New York: Routledge, 2021): 225-239; and extensive commentary in Joanna Zylińska, ed., *The Cyborg Experiments: The Extension of the Body in the Media Age* (London: Continuum, 2002), as well as Marcquard Smith, ed., *Stelarc: The Monograph* (Cambridge: MIT Press, 2005).

<sup>108</sup> Stelarc, “Ear on Arm”, <http://stelarc.org/activity-20242.php> (accessed 29/01/25).

<sup>109</sup> *Ibid.*

<sup>110</sup> Cf. the Tissue, Culture & Art project’s site at: <https://tcaproject.net/> (accessed 02/02/25); for a commentary see my “Zoontotechnics: Cultured Meat, Margaret Atwood’s *Oryx and Crake* and Life after Animals”, *Solidarities with the Non/Human*, 209-234.

places. For example, someone in Venice could listen to what my ear is hearing in Melbourne”.<sup>111</sup> The “evolutionary” interest in this experiment lies in speculating about a better adaptation of the biological organic body to a new technological context and thus, to overcome some “natural” limitations or disabilities:

We have evolved soft internal organs to better operate and interact with the world. Now we can engineer additional and external organs to better function in the technological and media terrain we now inhabit. It also sees the body as an extended operational system- extruding its awareness and experience. Another alternate functionality, aside from this remote listening, is the idea of the ear as part of an extended and distributed Bluetooth system – where the receiver and speaker are positioned inside my mouth. If you telephone me on your mobile phone I could speak to you through my ear, but I would hear your voice “inside” my head. If I keep my mouth closed only I will be able to hear your voice. If someone is close to me and I open my mouth, that person will hear the voice of the other coming from this body, as an acoustical presence of another body from somewhere else. This additional and enabled EAR ON ARM effectively becomes an Internet organ for the body.<sup>112</sup>

The technological and biocompatible components in Stelarc’s universe are supposed to become “external organs of the body” and in fact challenge the inside/outside distinction on which an instrumental notion of technology and prosthetics is usually based. What is important to note, however, before I move towards a discussion of cochlear implants, disability and enhancement, is that Stelarc’s intention was not to rectify an “impairment” of what is considered to be “normal” hearing but instead he wants to extend the notion of “normalcy” and the “lived experience” of hearing as such, beyond the boundaries of a hearing self and beyond the boundaries of an organically defined aural sense.

However, this is not fundamentally different from a project like Braidotti’s, for example when she describes what the “posthumanities” of the future should concern themselves with, namely an “actualization [that provides] an adequate expression of what bodies – as both embodied and embrained – can do and think and enact”.<sup>113</sup> What a body can do and not is precisely what the enhancement debate is about and it is also the point where it centres on the question of disability or impairment and what is to be done about “it”. A case in point are the hopes, promises, experiences and disappointments associated with cochlear implants. Stelarc’s third ear is only secondarily intended as a compensation for some aural shortcoming, the enhancement it suggests is maybe rather one that overcomes a perceived socio-technical deficiency – why not make audible to each other what is usually thought to be the most intimate and most subjective sense of self, the one of hearing as the most profound and most repressed “originary” technology,<sup>114</sup> and overcome the unbridgeable gap between inside and outside that seems to be constitutive of “consciousness”, “auto-affection” and “thought” in general but which, at the same time, also constitutes the solipsism, the inscrutability and “secrecy” at the core of the idea of “self-identity” that Jacques Derrida speaks of in using the expression “*s’entendre parler*” [to hear oneself speak]: the ultimate phantasm of (self)presence.<sup>115</sup>

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<sup>111</sup> Stelarc, “Ear on Arm”, <http://stelarc.org/activity-20242.php> (accessed 29/01/25).

<sup>112</sup> *Ibid.*

<sup>113</sup> Rosi Braidotti, “A Theoretical Framework for the Critical Posthumanities”, *Theory, Culture & Society* 36.6 (2019): 31-61 [51-52].

<sup>114</sup> See Naomi Waltham Smith’s argument for a “sonic turn” in philosophy in “Turning Ears; Or Ec(h)otechnics”, *Diacritics* 47.4 (2019): 110-129.

<sup>115</sup> As Derrida explains for example in the context of the “phonocentrism” of Western metaphysics in *Of Grammatology* [1967, 1974], corrected edition (Baltimore: The Johns Hopkins University Press, 1997): 7-8. In



### ...to Cochlear Implants

It is this “mystery” of “self-presence” that is the target of both deconstruction and transhumanism, however, to very different ends. The target of transhumanism in order to apply its logic of enhancement and augmentation must be to find technical ways of connecting consciousness, perceived mainly as a neuro-cognitive-informational-pharmacological phenomenon with digital devices through appropriate interfaces. As Joseph Lee predicts: “it is highly likely that implantable neural devices will be part of any transformed machine-human existence”.<sup>116</sup> One can therefore say that the availability and medicalisation of cochlear implants (CI) for the congenitally deaf provides a sort of test case for the kind of neural cyborgisation envisaged for future “(post)humanity” more generally. Needless to say that this causes both some strong resistance and enthusiasm:

Many in the hearing community are surprised about the reactions of dismay and hostility to cochlear implants from a large part of deaf community during the 1980s and the early 1990s... Some reasons for rejection include: the idea of trying to find a “cure” for deafness... and that CI technology represented an attack on the Deaf Culture since it aimed to ensure that deaf children grow up to use spoken languages instead of the signed languages of the Deaf. This inevitably decreases the population of the community which communicates using signing.<sup>117</sup>

Of course, today’s cochlear implants have greatly improved and the arguments of the “Deaf Community” to be recognised as such and their “elective disability” to be accepted as a life-style choice have maybe lost some of the original incomprehension they caused, but what if this cause to defend one’s unenhanced and “impaired” status quo became a more general prospect for unenhanced humans in a society where medically-assisted “posthumanisation” became the new norm with its inevitable social pressures and inequalities?<sup>118</sup> One main candidate for enhancement in

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many ways, as Leonard Lawlor explains, “it is possible to say without exaggeration that every deconstruction Derrida has ever written targets auto-affection. Deconstruction aims to show that all auto-affection, however it is conceived, is really and fundamentally hetero-affection”, cf. Lawler, “Auto-Affection”, in: Claire Colebrook, ed., *Jacques Derrida: Key Concepts* (New York: Routledge, 2015): 130. Stelarc’s desire seems to play precisely with this idea of an “auto-hetero-affection” by externalising the inside of the *s’entendre-parler* through technological means. This is, then, where Stelarc’s Third Ear connects with the idea of cochlear implants. It would be fascinating to see what kind of auto-hetero-affection processes are set in motion when congenitally deaf subjects begin to hear themselves speak through a technical device that is regulated from “outside” by an “other”, as part of a lengthy aural learning process.

<sup>116</sup> Joseph Lee, “Cochlear Implantation, Enhancements, Transhumanism and Posthumanism: Some Human Questions”, *Science and Engineering Ethics* 22 (2016): 67-92 [68].

<sup>117</sup> *Ibid.*, p. 73.

<sup>118</sup> The basic “problem” with the technology, however, seems far from being solvable for the foreseeable future. See Beate Ochsner, “Das Cochlea-Implantat oder: Versprechen und Zumutungen sozialer Teilhabe”, in: Karin Harrasser and Susanne Roeßiger, eds., *Parahuman: Neu Perspektiven auf das Leben mit Technik* (Vienna: Böhlau, 2016): 78-90; Ochsner critically looks at the promises [*Versprechen*] and the unreasonable demands of social participation [*Zumutungen sozialer Teilhabe*] that frame CIs. Technically, CIs remain rather crude in their interfacing with the auditory nerve and the extensive need for neurological reorganisation together with the learning process that a successful integration requires, all this with often disappointing results. Even more invasive, however, is the psycho-social demand on implantees, as Ochsner explains: “The neuroprosthesis holds out the prospect of participation in social life, but in the process of subjectification this promise is inscribed with the demand for self-care and collaboration, to which CI wearers must ‘voluntarily’ submit”, *ibid.*, pp. 80-81 (my translation) – a demand that gives rise to a new form of “neuro-governmentality”, or “neuro-self-governance” as Ochsner calls it, and which calls for an extension of Foucault’s analysis and critique of the neo-liberal humanist “care of the self”. Other problematic aspects of CI implants and enhancement technologies more generally concern the complicated entanglement between medicalisation and commercial interests. Additionally, as the Stelarc project shows (without itself problematising this of course) are the

becoming transhuman might be “normal” language use in general: “future communication will likely involve neuroprostheses implanted into the body, or a neuroprosthetic implant (NI). So NIs act like CIs to extend the range of language for the unenhanced and the deaf, respectively”.<sup>119</sup> This might be an “enhancement” that (ideally) would lead to a point where “telepathy” becomes the “normal” form of communication of the enhanced while excluding the unenhanced left behind with a “linguistic disability” and basically an “inferior” medium.<sup>120</sup>

Given that the current versions of cochlear implants are probably still quite “underwhelming” even if they, from the point of view of non-hearing, might perform a “miracle” in generating sounds that are under favourable conditions and with an intensive “learning programme” decodable, maybe it is far too early to start worrying about all this. However, the will to technological augmentation and the promissory nature of transhumanist discourse seem to speak to an irrepressible desire for and the prospect of “new subjectivities”, as Fiona Kumari Campbell writes:

More than ever... we are witnessing a new kind of human subjectivity – intersubjectivity if you like – technological humans – hybrids, cyborgs, or monsters. What better place to extend our ideas about ableism and the production of disability than the subject of transhumanism with all its incumbent issues around ontology, humanness and of course the place of technology.<sup>121</sup>

We thus return to the question of how disability might inform critical posthumanism as an ongoing critique of humanism and humanism’s re-incarnation and radicalisation: transhumanism. What promises to be “reparative” in terms of impairment and disability, however, might in fact merely be a “displacement”, as Michael Wee insinuates when he asks: “Would someone with hearing abilities going well beyond the normal human range be able to cope with being in a crowded place, or be able to appreciate an orchestra, or be at risk of being overwhelmed by the sheer volume of sounds and, indeed, in the latter case, mistakes that no human ear can hear at present? (...) Who is the one with a disability here?”<sup>122</sup>

Indeed, as Zack Moir and Katie Overy write, “it is common for CI users to voice complaints relating to their post-implantation perception of music” to a point where many choose “not to listen to any music since receiving their implant”:

Although CI technology is undoubtedly beneficial as a medical technology that is designed to improve aural communication, it can also be regarded as simultaneously detrimental to the experience of music, and indeed other arts in which music is involved (such as film, television, dance and theatre), and to social occasions in which music is involved (such as weddings, pub gatherings, parties and religious ceremonies).<sup>123</sup>

In thus being limited cochlear implants are not significantly different from hearing aids more generally, which also despite much progress cannot equal the “normal” range of hearing and noise

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negative sides of “connectivity” and the “surveillance” potential in human-(smart)-machine interfacing in general.

<sup>119</sup> *Ibid.*, p. 77.

<sup>120</sup> James Pfrehm, in the context of cochlear implants, speaks of a “technolingualism” (language’s influence on technology and technology’s influence on language”, cf. Pfrehm, “Regeneration of Language: The Cochlear Implant”, *Technolingualism: The Mind and the Machine* (London: Bloomsbury, 2018): 207-244.

<sup>121</sup> Fiona Kumari Campbell, *Contours of Ableism: The Production of Disability and Aabledness* (Houndmills: Palgrave Macmillan, 2009): 45.

<sup>122</sup> Michael Wee, “Therapy, Enhancement, and the Social Model of Disability”, p. 20-21.

<sup>123</sup> Zack Moir and Katie Overy, “The Impact of Cochlear Implants on Musical Experience: Case Study”, in: Victoria Bates, Alan Bleakley and Sam Goodman, eds., *Medicine, Health and the Arts: Approaches to the Medical Humanities* (London: Routledge, 2014): 246-263 [246, 250].

filtering that is necessary to enjoy what are essentially activities traditionally seen as “humanist” forms of appreciation and acculturation. Does that mean that one should persist with the “technological” fix approach and invest into “posthuman” forms of hearing? This obviously depends on how much value, as individuals and as society “we” continue to place on these “humanistic” cultural technologies (and, relatedly, to what extent they should still be at the centre of education, if education is understood as a “future-proofing” process of the “next” generations)?<sup>124</sup>

We can also reconnect here with the second conundrum for a “posthuman(ist)” disability studies: it is quite clear that human hearing abilities are rather limited compared to that of a “bat”.<sup>125</sup> This has become another “topos” in posthumanist thinking, as well as the “alien phenomenologies”<sup>126</sup> that nonhuman animals more generally might experience in their own form of “*s’entendre parler*”, in radically different environments and soundscapes. While it may be fascinating and illuminating to be able to hear like and experience the world like a bat for a day, it would undoubtedly very quickly gain become debilitating. However, what would be important in such a “mind-enhancing” adventure is to confirm the shared embodied nature of a sensorial experience as such which demands to be “heard”, valued and respected in all its difference and alterity.

PS:

So where does this leave me with my analogy between Stelarc’s Third Ear and cochlear implant, and with the question of posthumanism and disability studies – friends or foes? The “productive” unease with which I began this chapter if anything has become worse I feel. There is no conclusion because the challenge that disability, enhancement and posthumanisation pose are full of contradictions, anxieties and desires with their huge potential for injustice. Therefore, I decided to ask a “person” with a very specific interest in this future development and they have come up with a seemingly very “judicious” reply:

Posthumanism and disability – allies or foes?

**ChatGPT:**

That’s a fascinating and complex question! The relationship between posthumanism and disability studies is one that sparks a lot of debate. Some see posthumanism as an ally to disability studies, while others might view it as problematic. Let’s break it down a bit.

**Posthumanism** challenges traditional ideas about what it means to be human, emphasizing fluidity, embodiment, and the potential to transcend human limitations through technology, bioengineering, or even new social frameworks. This philosophical stance often critiques the “normative” human ideal—one that’s able-bodied, rational, and autonomous—and opens up possibilities for redefining human experiences beyond those constraints.

On the other hand, **disability studies** focuses on the lived experiences of people with disabilities and challenges ableist assumptions in society. It critiques the idea that disability is something to be fixed or transcended, and instead advocates for a more inclusive and accessible world where disabled people’s experiences are centered, and their bodies and minds are valued as they are.

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<sup>124</sup> Cf. my contributions to the educational debate on posthumanism in *(Un)Learning to Be Human? Collected Essays on Critical Posthumanism 1* (Leiden: Brill, 2024).

<sup>125</sup> Cf. Thomas Nagel, “What is it like to be a bat?” *Philosophical Review* 83.4 (1974): 435–450.

<sup>126</sup> Cf. Ian Bogost, *Alien Phenomenology* (Ann Arbor: Open Humanities Press, 2012).

### Allies:

- **Redefining Humanity:** Posthumanism could be seen as an ally because it challenges the conventional standards of what it means to be human, which often exclude people with disabilities. By rejecting rigid ideas of a “perfect” body or mind, posthumanism could contribute to a more inclusive vision of human diversity.
- **Technology and Enhancement:** Posthumanist ideas often involve using technology to enhance human capabilities. For some disabled people, these technologies—such as prosthetics, exoskeletons, or neuroprosthetics—can help them overcome physical barriers, giving them greater agency and independence. In this way, posthumanism might offer tools that align with the goals of disability activism, which seeks to improve accessibility and quality of life.

### Foes:

- **The Risk of Erasure:** On the flip side, posthumanism’s focus on transcending human limitations could potentially overlook or erase the lived experiences of disability. If the goal is to “transcend” the human condition altogether, there’s a risk that the unique challenges faced by disabled people could be devalued or dismissed as obstacles to be eliminated, rather than experiences to be acknowledged and accommodated within society.
- **Techno-utopianism:** Posthumanism’s embrace of technological solutions might also raise concerns within the disability community about the ethics of enhancement and the pressure to “fix” disabilities. While technology can be empowering, there’s the risk that it could also contribute to ableism by placing a premium on “normalcy” or “enhancement” over accepting and supporting people as they are.

### In Summary:

The relationship between posthumanism and disability studies can be seen as both complementary and in tension, depending on how each framework is applied. Posthumanism can offer a critical lens that helps us rethink human limitations, but it also poses risks of marginalizing disabled people if it fails to center their lived experiences and needs. Ideally, an intersectional approach would seek to combine the insights of both, advocating for technological and social transformation while also respecting and valuing the diversity of human bodies and minds, including those that are disabled.

What’s your take on it? Do you lean more toward one side of the debate?<sup>127</sup>

Thank you, ChatGPT. Apart from the fact that you don’t really differentiate between critical posthumanism, posthumanism and transhumanism I don’t know what I find more reassuring, namely that you come up basically with the same argumentative structure as I do, or the fact that you’re also not able to come up with any satisfactory solution. Who is the more severely impaired here, since at least I’ve tried to display some “unease” about my lack of an ability to decide and take sides.

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<sup>127</sup> Chaptgpt.com (accessed 31 January 2025).