

INTRODUCTION: POSTHUMANISM(S)

[When it comes to information], more is more than more. (McCarty 2009).¹

Today, the signs of technological posthumanism have become so ubiquitous that most of us, on most occasions, have ceased to take notice. Indeed, our navigations through diverse realities and our negotiations with aggressive technological couplings are no longer even really remarkable: email and video-chats, certainly, but also genetically modified foods, text-messaging, online classes, virtual exercise routines, and complex relational databases are all part of our daily lives. As a result, our perceptive apparatuses are constantly tuned to diverse and often contradictory frequencies, but in a way that tends to play out any incongruities as part of what and who we are as humans. Indeed, many of us are more likely to feel the absence of these technologies than their presence: for example, I myself have frequently felt a visceral frustration at not having Internet access while driving; a question pops into my head and—before becoming aware of my physical situation—I can feel my body reaching for the Internet to answer it. What feels

¹ This statement was made by McCarty in the following response to a comment made about his “Who am I computing?” post to the OnTheHuman.org forum:

Let’s say that my vision is such that I cannot read the 8-point type of footnotes, or such that I cannot see with the naked eye why it is that some “stars” (the ones that radiate a steady light) are actually planets like Earth. I’d think that the magnifying glass or the telescope would make an enormous difference to my understanding and would lead to many theoretical and meta-theoretical insights— because more is more than more.

incongruent is not having the Internet available, as it forces me back into the confines of a body that I no longer identify as being the sum total of my self. Indeed, even as I feel this bodily re-containment as a reductive violence played out on my consciousness, I nonetheless continue to hurtle along the highway at a speed that insists that I too am propelled, just as much as my automobile.

Two things are revealed in this scenario: firstly, that to the extent that our subjectivity pertains to our actions in the world, we are today compelled to think of ourselves through the lens of technology; secondly, that this has always been the case. Of course, if the second point is true, then we can safely say that the first point is not a new one. However, one feature that separates our current mixed reality—the mixed reality of digital and analogue technologies—from that of the past is precisely the fact that we are able to marvel at our own ability to navigate so seamlessly from one realm to another. As Mark Hansen notes, the question of how we can accomplish this feat so fluidly "*did not need to be posed* so long as perceptual experience (with only atypical exceptions) remained within a single experiential frame—so long, that is, as experience typically occurred within a single perceptual world as a coupling to a single form of extension or homogeneous outside" (Hansen 2006: 8).

Thus, with the dramatically increasing prevalence of digital technologies in contemporary western culture, the end of the twentieth century witnessed an important shift in the poststructuralist project of the deconstruction of the subject. The otherness of the "Other" that is constitutive of the modern subject, for example, is now understood to be predicated on *technologies* of reflection and language. Technology has entered into the discourse at the ground level. While this in itself is not particularly novel—the "linguistic

turn” might be understood precisely as the recognition that discourse is always-already in some sense technological—the evolved relation with technology that characterizes contemporary culture strikingly reorients the terms in question. This new cultural inclination is what is captured under Stephen Johnson’s nomination of our present historical moment as “interface culture,” a term he “wields to embrace not only the ubiquity of computers and electronic devices but also the way in which interface has come to function as a kind of trope or cultural organizing principle” (Kirschenbaum 2004). More radically, Lev Manovich has even positioned the (relational) database as a symbolic form that has replaced, in contemporary western culture, the privileging of conventional linear narrative that operated in the age of cinema. In the logic of the database, individual items are collected in such a way that “every item has the same significance as any other” (Manovich 2007: 39), so that the signification processes of traditional causal sequences are severely troubled.²

What has changed, then, is not simply the technologies that we interact with, but our conception of technology itself. As numerous theorists from diverse disciplines have argued, technologies today can no longer be adequately thought through the lens of “extension,” but must instead be understood as profoundly implicated in our being. That is, technologies are not tools that we use, nor objects in relation to which we are servo-mechanisms, but are rather pathways through a relational ontology (which may be another way of saying that technologies are also all those things that they are not). This

² These are, of course, simplified accounts of both Johnson’s and Manovich’s (nuanced) arguments. My purpose in referring to both here is not to summarize their respective positions, but rather to emphasize what is at stake in the discourse in which they interact.

“recursive feedback loop”³ is actually contained in McLuhan’s well-known tetradic reading of technology (McLuhan and McLuhan 1988), which describes individual technologies (including “software” technologies such as languages and ideas) as nodal points in a field comprised of enhancement, obsolescence, retrieval, and reversal potential.⁴ This, then, is the sense in which the subject is thought as a technology in this

³ This is a term that is frequently used by Hayles, with the qualifier “recursive” differentiating this type of feedback loop from a closed one. Specifically, recursion results in properties that emerge unpredictably from the complex relations of the feedback process. In contrast the signal of a completely “closed” loop (which is, technically, impossible to achieve) would be maintained without the production or interference of additional material.

⁴ Briefly, McLuhan’s four laws of media collectively stem from the premise that “each of man’s artifacts is in fact a kind of word, a metaphor that translates experience from one form into another” (McLuhan and McLuhan 1988: 3). In this sense, artifacts of both hardware (i.e. a table, or a stick) and software (i.e. an idea or a preposition) are understood as extensions of a human body (which includes their mind). Crucially, McLuhan indicates that these laws are “scientific” in that they are testable, universally applicable, and yield repeatable results. Framed as questions, and intended to be asked simultaneously, the tetrad is:

- What does the artifact enhance, intensify, make possible, or accelerate?
- What is obsolesced by the artifact?
- What older, previously obsolesced ground is brought back and inheres in the new form?

essay, where the latter indicates (like Agamben's "apparatus") "literally anything that has in some way the capacity to capture, orient, determine, intercept, model, control, or secure the gestures, behaviors, opinions, or discourses of living beings" (Agamben 2009: 14).⁵ In short, rather than being characterized in terms of the subject's relation to the social, today's subject is first thought in relation to technology. As a result, N. Katherine Hayles seems to have been correct in her prediction that twenty-first century debates "are likely to centre not so much on the tension between the liberal humanist tradition and the posthuman, but on different versions of the posthuman as they continue to evolve in conjunction with intelligent machines" (Hayles 2005: 2).

If subjectivity can be understood as a particular and fluid combination of McLuhan's four intensities, questions of identity are replaced by (or at least supplemented with) questions of procedure. Thus, the discourse of technological posthumanism—inasmuch as the term can capture what is a diverse and often contradictory assemblage of thinkers—is not a project of redefining subjectivity, humanity, or the individual, so much as it is one of considering the conditions, exclusions, and performativities of these terms. Thus, my research treats a discursive wrangling around the subject—or "selfhood" (Wilson 2009)—as the first meaning of "technological posthumanism." Whatever (technological) posthumanism may or may not

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- When pushed to its extreme, what will the new form reverse into? (McLuhan and McLuhan 1988: 9)

⁵ In the context of this formulation, Agamben takes the subject to be "that which results from the relation and, so to speak, from the relentless fight between living beings and apparatuses" (Agamben 2009: 14).

suggest, it is clear that the term registers a co-implication of technology and the subject, what Mark Poster has described (using the term “humachine”) as an “intimate mixing of human and machine that constitutes an interface outside of the subject/object binary” (Poster 2004: 318). In thus registering the term first as a nexus of discursive relations, I take my cue from Herbrechter and Callus, who argue:

Posthumanism, as the name of a discourse, suggests an *episteme* which comes “after” humanism (“post-humanism”) or even after the human itself (“post-humanism”). Implicit in both these articulations is a sense of the supplanting operations wrought by time, and of the obsolescence in question affecting not simply humanism as displaced *episteme* but also, more radically, the notion and nature of the human as fact and idea. (Herbrechter and Callus 2003)

Indeed, Neil Badmington goes a step further in arguing that—in light of critical theory since at least Lacan—“humanism never manages to constitute itself [but instead] forever rewrites itself as posthumanism” (Badmington 2000: 9). As a result, though the term “technological posthumanism” does not indicate something fixed or concrete, it nonetheless captures the relation of humans and technology in a way that allows it to act as the basis—the starting point—for further investigations in other areas. Considered in the context of the ever-increasing rate of proliferation of new technologies, this meaning may well chart the path of humanity’s futurity, declaiming the terms of registration for new ideas and new ways of thinking the limits of possibility.

As I will argue throughout this dissertation, then, what is at stake in each of the competing versions of technological posthumanism that are considered herein is the perspective from which such changes are registered. That is, each perspective is

supported by a disavowed system of values—by an ideology—so that what must ultimately be thought is the ways in which these values are sublimated and normalized by each perspective, and what is at stake in each competing strain’s emergence as a potentially dominant cultural logic.

If subjectivity is to be approached in terms of technology, then it follows that media art—art involving contemporary (usually digital) technologies—offers significant insight into the specific constitution of contemporary subject positions. Hayles supports this view, remarking that:

If art not only teaches us to understand our experiences in new ways but actually changes experience itself, [new media] artworks engage us in ways that make vividly real the emergence of ideas of the body and experiences of embodiment from our interactions with increasingly information-rich environments. They teach us what it means to be posthuman in the best sense. (Hayles 2002: 303)

Indeed, the existence of at least some minimal relation between art and subjectivity has long been established, so that Hayles’ point here is basically that the tradition of studying the subject (or individual) in light of its contemporary artistic and literary output has been maintained through the transition to digital culture. What is strange, though, is that even though early characterizations of “electric culture” (the embryo of digital culture) regularly operated through critiques of the privilege afforded to vision in contemporary culture⁶—and even though the worldviews that have sprung from refocusing on haptic

⁶ McLuhan is again notable in this respect.

and sonic perceptual apparatuses have been mobilized against this hegemony—there remains a relative dearth of study which focuses specifically on the role (and constitution) of sound in media art’s performances of the subject (this despite the relatively recent emergence of Sound Studies as a field of inquiry unto itself). To understand the extent of this omission, consider that as recently as 2004 Johanna Drucker argued that “the idea that *visual* representation has the capacity to serve as a primary tool of knowledge production is an almost foreign notion to most humanists” (my emphasis, Drucker and Nowvieskie 2004). If the digital humanities are currently only in the nascent stages of contesting the exclusion of the visual in its own right (that is, in its extra-textual mediality), the aural has been almost entirely neglected.⁷ Thus, although each of the theorists that act as nodal points in this study have devoted significant efforts to reading artworks through their theoretical models, the works are only rarely considered in terms of their sound. Does sound in some way threaten this discourse? Is there a politics to its exclusion?

There are, of course, exceptions to this omission, theoretical noises (in the best sense of the term) often sounded by thinkers with one ear tuned to undermining the hegemonic (disciplinary) politics of music. Paul Hegarty, Paul D. Miller (aka DJ Spooky), and Charles Mudede all variously exemplify this important work. However, when Mudede (for example) thinks the turntable as “a repurposed object [that is] robbed of its initial essence [but] is soon refilled by a new essence” (Mudede 2003), what is

⁷ Following Hansen, the adjective “medial” here marks “the specificity of analyses concerned with the materiality of the medium and of media generally” (Hansen 2006: 22).

being thought is not really specific to the *sound* of the turntable. That is, Mudede's turntable is foremost a cultural artifact rather than a medial one, in that everything ascribed to the turntable could conceivably take place without the medium of sound (though perhaps not without music).⁸ This difference points to a necessary clarification of my own project: my mobilization of sound in this essay is not intended to intervene with musical discourse, nor to claim a privileged status for sound.⁹ Instead, this essay takes advantage of sound's pronounced mediality—in the sense that sound art “has nothing but mediations to show for itself” (Hennion 2003: 83)—to trouble the assumptions that underwrite the theorists in question. After all, sound remains (rightly or not) the test of presence, even if Derrida has taught us that this is a test that will always fail.

The body of this essay is a critical discourse analysis of three strains of technological posthumanism, particularly emphasizing the ideological stakes of each. This emphasis is

⁸ To be clear, I mention this point to highlight a key difference between Mudede's project and my own, rather than to mount a critique of his argumentation.

⁹ One exception to this qualification may lie, perhaps, in the sense that musical discourse necessarily excludes sound, a claim that can be argued analogously to Judith Butler's attempt to register the sex of materiality in *Bodies That Matter*. Such a qualification, which is beyond the purview of this study, would align with Butler's dual insistence that “the constative claim is always to some degree performative” (Butler 1993: 11), and that what is excluded in a performance is “nevertheless *internal* to that system as its own nonthematizable necessity [so that it] emerges within the system as incoherence, disruption, [and as] a threat to its own systematicity” (Butler 1993: 39).

leant support by readings of contemporary media artworks that are intended to probe a specific (posthuman) problematic raised with respect to each theorist, and to avow the essay's own unavoidable role in constructing the discourse that it describes. To this end, these artistic analyses are attentive to the medial specificities of the works that they consider, and give particular emphasis to the role that sound—broadly construed—plays in their relational networks. Taken together, then, technology is at the centre of every level of this project: as the forms of selfhood that are exemplified in each strain of technological posthumanism (i.e. technologies of subjectivity); as the material conditions and (often) the aesthetic ground of the media art practices considered; and as the mode in which these considerations are collected into a unified text. Pairing the centripetal force of theoretical close readings with the (imaginary but no less visceral) centrifugal flights of artistic practice, this project introduces a new, procedural understanding of the inductive theoretical knowledge that is already in play at the junction of technology, media art, and subjectivity. In short, this approach attends to the particularities of cultural production in their own right, emphasizing not only the ways that theory is supported by cultural practices, but also the ways in which the latter tend to elude theoretical discourse. This understanding not only enhances the theoretical milieu within which this essay operates, but also transfigures it through a rejuvenated emphasis on the praxis of meaning formation in its inductive capacity.¹⁰

¹⁰ I use the term “praxis” in Agamben’s sense, to indicate “a practical activity that must face a problem and a particular situation each and every time” (Agamben 2009: 9). Here, the term indicates that while posthumanism serves as a dominant critical lens through which I critique the artistic practices in question, the reverse is also the case.

The theoretical content of this essay is focused around three thinkers: Ollivier Dyens, N. Katherine Hayles, and Mark B. N. Hansen. Each of these three offer a different inflection to the study at hand, sending it in disparate directions: Dyens' *Metal and Flesh* intensifies Richard Dawkins' logic of "selfish" genetic reproduction in its cultural aspect, articulating the deterministic challenge to human agency implicitly issued by notions of scientific discourse constructed around measurability, repeatability, and falsifiability; Hayles has been a primary figure in the rise to discursive prominence of technological posthumanism, and the trajectory of her thought charts a genealogy of the future of the technological posthuman that registers the specificity of contemporary technologies in their own right. In this respect, Hayles' attempts to think beyond what she perceives to be the limits of deconstruction are read here for the contributions that they offer to the discourse, despite her project ultimately being tethered to the humanist values that she seeks to gain traction against; and finally, Hansen's advocacy for an extra-linguistic understanding of embodiment and technics moves against deconstruction from the other side, articulating a fully present body that would precede linguistic ambivalence. While Hansen's analyses give an important account of how an operational perspective can inform contemporary thinking about couplings of humans and machines, I argue that the conclusions that he draws from this perspective reinforce (rather than critique) the tenets of Derridean deconstruction.

Similarly, the artworks considered in tandem with these theorists also each offer a unique perspective. The analysis of *Eidola*—an exhibition featuring works by William Brent and Ellen Moffat—teases out the exhibit's challenge to scientific (visual) representation from two sides, showing both that it is haunted by forces that are

qualitatively different than those that it registers, and that its very representations, pushed to the extreme, turn back on themselves to speak against the terms that conditioned them in the first place. Similarly, the analysis of Rafael Lozano-Hemmer's *The Trace* reads the telepresence of the piece as demonstrative of the type of complexly contingent agency that Hayles unpacks, but also emphasizes (particularly when thought in tandem with Judith Butler's theory of melancholic subjectivity) the ethical ambivalence that obtains in the performative dimension of this situation. Moreover, since *The Trace* is an exemplary piece of early telepresent art, studying it gives purchase on media art's points of departure from traditional disciplinary practices, as well as the ontological assumptions that are built into these practices. Finally, the analysis of Skewed Remote Musical Performance (SRMP)—a collaborative practice between William Brent and myself—exemplifies the rich entanglement that Hansen deems characteristic of our present historical moment, but also reiterates the extent to which meaning construction remains, even in the context of ubiquitous media, conditioned by linguistic practice. In this context, if Hansen's thought points a digital finger back towards analogue subjectivity, SRMP might be said to perform the inverse gesture, insisting on the impossibility of inscribing an originary status to either analogue or digital realities.

Clearly, if the “theoretical” chapters are aimed at thinkers whose influence in their field is—to varying degrees—self-evident, the same cannot be said of the artistic analyses found in the accompanying chapters. While ample justification for each selection can be found—I believe—in the analyses themselves, a more general note about their selection may also be helpful: quite simply, these works were not chosen in an attempt to articulate a canon of new media art, nor because they are particularly

“important” in a grand-historical sense. Instead, then, the “artistic” chapters of this essay move in the doubled motion of lines of flight, on one hand deterritorializing the relatively linear narrative that otherwise characterizes the dissertation, while on the other hand re-territorializing my own position in the dissertation, and thereby acknowledging my role—as a seemingly “objective” analyst—in constructing the facts that I seek to describe. With respect to the former movement, these works are each intended to remind the reader, in different ways, that this essay does not aim to contain the discourse of technological posthumanism, but rather to unpack an instance of it. Regarding the inverse trajectory, the artworks are selected in part because they are each at a different “personal distance” from my own artistic practice: I have a conventional “objective” relation with *The Trace*, a profoundly personal relation with SRMP (as its co-creator), and a less personal but still deeply informed relation with *Eidola* (as co-curator of the exhibition). By thus situating myself in multiple ways I hope to acknowledge my own subject positions, but also to open a space of indetermination within the broader narrative(s) of the dissertation. That is, I have taken it to be a truism throughout this essay that content is always context-specific; in selecting works that access qualitatively different strata of knowledge (within myself), I hope that this will be all the more explicit.

Indeed, the dissertation includes a significant creative component—titled *Agential Recombinant (AR)*—for similar reasons. Ultimately, *AR* is a discourse analysis in its own right, in the sense that it offers a unique perspective on the material discussed in the essay, creating a forum for second-order observation—or “observation of observations” (Luhmann, cited in Wolfe 2010: 231)—that serves to more expressly situate the dissertation. However, the particularities of the piece suggest that the reverse is also true,

namely that the discourses of technological posthumanism discussed offer fresh perspectives on many of the salient concerns of media art. Thus, the ambivalent relation of the essay and *AR* ultimately also serves to redouble the emphasis on performativity that obtains throughout the essay, thereby desublimating the “indissoluble mingling” (Latour 2002: 248) of aesthetics, technology, subjectivity, and ideology that each performs.

Emphatically, then, the artists and thinkers discussed in this text can in no way be taken as representative of the full range of work in their respective areas. Indeed, the specifically “technological” focus of this study institutes a boundary that overstates the distinction between the concerns of this project and, for example, those that pursue posthumanism from the perspective of animal studies. Moreover, such luminaries as Giorgio Agamben and Donna Haraway—thinkers who offer meaningful insight into posthumanism from the perspective of both technology and animality—are relegated to the periphery of this study at least in part because of their interdisciplinarity, a feature which otherwise recommends their work. Furthermore, a host of other notable thinkers are not given the space that they deserve, a list that includes both contemporary thinkers such as Arthur Kroker, Bruno Latour, and Lev Manovich, as well as historically foundational thinkers of posthumanism such as Heidegger, Nietzsche, Marx, Adorno, and Foucault.¹¹ In truth, I have only two unsatisfactory explanations for this: firstly, the

¹¹ Foucault is sometimes credited with first articulating the claims of posthumanism by arguing, in *The Order of Things*, that “an archaeology of our thought easily shows [that] man is an invention of recent date [,] and one perhaps nearing its end” (Foucault 1970: 422). Furthermore, what Foucault draws our attention to throughout his work is the

pragmatics of the project; and secondly, the fact that these thinkers—just as much as those explicitly critiqued—*are* present. We hear, for example, Kroker’s reading of a cultural “will to technology” (Kroker 2004) in the critique of value that haunts much of the text, in particular Hayles’ (humanist) construction of technological posthumanism. Likewise, Haraway’s basic insight that facts are only meaningful because they are trophic (Haraway 2004: 201) neatly summarizes an important element of chapter one’s critique of Dawkins, and her assertion (which obtains throughout her writing) that “knowledge is *always* an engaged material practice and *never* a disembodied set of ideas” (Haraway 2004: 199) is a central predicate of this study as a whole. Certainly, similar connections can be drawn to each of the thinkers mentioned above (and a host of others); what I would like to accentuate at the outset, though, is that the aim of this project is not to silo technological posthumanism, nor to narrate its pre-history, nor to normalize the discourses of sound, media art, and technology that inform my readings of it. Instead, this essay aims in the opposite direction, charting a multiplicity of lines of flight that spring from these theoretical containments in an attempt to hear not only their relations, but also the ideologies that underwrite them.

The body of this dissertation consists of six chapters (in addition to the introduction and conclusion): chapters one, three, and five each unfold the thought of one of the three thinkers that I have highlighted above, each of whom I take to be representative of a dominant strain of technological posthumanism; chapters two, four, and six each examine

fundamentally posthumanist observation “that humanism is, in so many words, its *own* dogma” (Wolfe 2010: xiv).

one of the aforementioned artworks relative to the theorist of their preceding chapter. Rather than being exemplary of the thinker, though, the artworks are mined for their potential to trouble the thought that they are made proximate to, a labor of agitation that is often (though not always, and never exclusively) carried out in terms of the works' sound. While these chapters explicate terms, ideas, and analyses that inform the dissertation's larger argument, they also perform the tendency of the subjects under consideration to retreat from the nominative gestures that would contain them. Simply put, the artistic analyses in this dissertation are not intended to refute the theorists in question, but rather to insist on their contingency. Finally, the essay concludes with a reflection on what has been accomplished in the previous chapters, a reflection that is further focused through detailed consideration of the creative project created in tandem with the written essay.

Chapter one, "From Genes to Memes: The Scientific Posthumanism of Darwinian Evolution," reads the detachment of embodiment from biology described in the theoretical work of Ollivier Dyens.¹² In *Metal and Flesh*, Dyens updates Richard Dawkins' "selfish gene" argument to insist that the dominance of information in our current media-rich environment results in a human body that exceeds humanist notions of embodiment. In this context, Dyens frequently cites the cyborg as the posthuman body *par excellence*, claiming that the cyborg is a "living being whose identity, history, and

¹² Dyens' theoretical work exists in the context of his notable efforts to compile (and creatively present) existing theories of posthumanism (often under other names, including "inhumanism," "transhumanism," and "humachinism"). These efforts doubly nominate him as a key figure of posthumanism.

presence are formulated by technology and defined by culture” (Dyens 2001: 82).¹³ In this characterization, there is perhaps an inflection of advocacy in Dyens’ writing, eliding with the transhumanist perspective that we are evolving rather than, for example, “shifting” towards—or always already implicated in—technological posthumanism.¹⁴ Indeed, the notion of evolution is central to Dyens’ thought, which argues that our species’ *modus operandi*—which he believes is the desire to survive and to reproduce—has shifted from a biological register to a cultural one, such that desire is now configured around seeking out “culturally fertile bodies” (Dyens 2001: 20). What arises from this perspective, though, is a constitution of “life” that risks tautology: if life is defined, *a priori*, in terms of evolution, what is really being said when we chart evolving processes outside of the traditional domains of the living as constituting life? I argue that this looming tautology—which Dyens is certainly aware of—constitutes a primary driving force in *Metal and Flesh*, leading Dyens to the necessity of pointing to science as a

¹³ Cyborgs also function in Dyens thought as literal instantiations of the “cultural bodies” that we all today possess. The cyborg metaphor does not, for Dyens, employ future technological advances (i.e. “brain cameras” and supersensitive hearing) to show where humans are heading, but rather employs now obsolesced technologies (i.e. human flesh) to elucidate what we no longer are. Dyens’ cyborg metaphor is, strictly, spoken from the perspective of a post-cyborg.

¹⁴ For a distilled version of the type of advocacy for technological extensions of the human that characterizes transhumanism, see the World Transhumanist Association’s “Transhumanist Declaration” (Bailey et al. 2002).

purveyor of certain measurable truths, even as he retreats from these very claims.¹⁵ Thus, this chapter treats Dyens' understanding of life itself technologically, asking "what kind of regulatory apparatus it works in the service of" (Butler 2000: 157), and what constitutions of the posthuman it might foreclose. In short, this chapter asks what privilege there is to scientific knowledge, and how this privilege is written into Dyens' technological posthumanism.

Ultimately, chapter one conducts a hauntology of the positivist definition of life that Dyens extrapolates from Dawkins. In chapter two, "Dark Matters: an *Eidolic* Collision of Sound and Vision," the invisible forces that this haunting suggests are further explored by considering the mixed media exhibition *Eidola* in relation to two related but distinct metaphors: ghosts and dark matter. From these tropes, the chapter argues that *Eidola* stages an encounter between disciplinary biases of sonic and visual art practices, accentuating how both are infused with a part of the other that they cannot avow. Showing that the sound of *Eidola* is a blind spot in its visual observation, the chapter argues that this operates equally to trouble both the exhibit's sonic and visual components, even as it asserts the relation between the two. Ultimately, then, sound intervenes in this reading as a dual identity that is simultaneously Other and interior to

¹⁵ As one example, Dyens argues that standards of female beauty have remained fixed in proportion throughout our species' history, and that this points to certain primal biological desires (Dyens 2001: 19-21). What makes this assertion specifically *scientific* is not its subject (beauty), but the presumption that beauty constitutes a unified, testable, and falsifiable object of study (on the criteria of scientific laws, see McLuhan and McLuhan 1988: 3).

vision: whereas dark matter is visible only through its invisibility—through its gravitational pull on visibility itself—*Eidola* suggests that we might instead *hear* dark matter as a kind of sonic delirium that, rather than being a structuring principle, unfolds the ideological component of structure itself.

In a sense, both of the first two chapters revolve around representation, with Dyens intensifying a certain representational logic and *Eidola* troubling the positive substantial claims that this implies. Moving this line of inquiry in a new direction, chapter three—“Katherine Hayles and Humanist Posthumanism”—engages the work of Hayles in its attempt to think beyond deconstruction. To this end, the chapter comprises a close-reading of key terms in Hayles’ popular and well-respected “posthuman trilogy” of *Writing Machines*, *How We Became Posthuman*, and *My Mother Was a Computer*, giving particular attention to her renderings of intermediation, distributed cognition, and embodiment, as well as to the ways that her conception of materiality as an “evolving property created through dynamic interactions” (2005: 3) evolves over the course of the texts. Ultimately, the chapter argues that Hayles’ enormously influential construction of technological posthumanism is best read as a recombinant humanism that more readily connects (for better and worse) to an established system of human values than it does to the operations of the media that are its subject. In this, Hayles aligns with her fellow literary critic Fredric Jameson’s belief that “narrative is the inevitable means by which we attempt to make sense of the Real of history: we don’t have to narrate the way we do, but we do have to narrate” (Ross, 3).

Chapter four, “Butler, Melancholy, and the Contested Posthuman Ethics of Rafael Lozano-Hemmer’s *The Trace*,” mobilizes Lozano-Hemmer’s participatory telepresent

installation *The Trace* in relation to the call for an embodied understanding of information pronounced in Hayles' technological posthumanism. In particular, this problematic is taken up by reading *The Trace* with and against Judith Butler's account of melancholic subjectivity, specifically as it is articulated in *Antigone's Claim*. Through this lens, I argue that the subjectivity performed in *The Trace* unilaterally reduces the participants' mode of relating to one another. However, rather than either authoring a dematerialized body or evidencing a priority of embodiment, this reduction allows the piece to function as a critique of the unilateral narratives that it performs, and also of the symbolic form of relation itself as it obtains in Butler. As a result, *The Trace* exists in a tension with both vectors of (de)materialization that, ultimately, positions their relation as the terrain of its posthumanist ethics. In turn, this poses a significant challenge to Hayles' (foundational) attachment to the possibility of non-hegemonic meaning, re-emphasizing the containment of her thought in the language of value.

In a sense, chapter five—"From Affect To Affectivity: Mark B. N. Hansen's Organismic Posthumanism"—examines a construction of technological posthumanism that attempts to move beyond such containment by prioritizing an operational perspective. Whereas Hayles registers the complex intermediating feedback loops that comprise the relation between bodies and the world of technology, Hansen sidesteps this problematic in favor of a notion of "primary subjectivity" wherein the subject is constituted through affective spatiality (or "affectivity"). In this context, the chapter investigates Hansen's attempt to give a robust account of technology in its extra-linguistic dimension by evincing an "'originary' coupling of the human and the technical" that grounds experience as such, and which "can only be known through its

effects” (Hansen 2006: 9). Ultimately, the chapter finds that Hansen’s perspective remains haunted by the representational logic that it moves against. However, this observation does not repudiate Hansen’s argument as such, but rather rejects one of its central underlying implications: that the extra-discursive materiality of technology might be accessed, linguistically, without attaching an ultimately ideological meaning to it that is foreign to this materiality. To this end, the chapter articulates Hansen’s argument for an affective topology of the senses, corroborating the increased importance of digital technologies in this perspective through a brief comparison of Roberto Lazzarini’s *skulls* (as read by Hansen) and my own piece *Sound*. From this comparison, I ultimately argue that what is accomplished by Hansen’s putting-into-discourse of *technesis* is, paradoxically, a re-staging (and perhaps even a heightening) of the constitutive ambivalence of deconstruction that he seeks to undermine.

If the organismic posthumanism of chapter five performs an intensification of the paradoxical (deconstructive) causality that it disavows, chapter six—“Sounding Representation: Skewed Remote Musical Performance” —discusses an art practice that makes this performance explicit. To this end, the chapter addresses the Skewed Remote Musical Performance (SRMP) practice that I co-developed with William Brent, giving particular emphasis to the way that it nominates sound as a paradoxical relationality that reaches towards the “fieldness” (in McLuhan’s sense) of this relationality precisely by refusing to give sonic instantiations (i.e. “sounds”) primary status.¹⁶ In this context,

¹⁶ The quality of “fieldness” is frequently found in McLuhan’s accounts of acoustic space, where it refers to a space created by a set of relations (rather than being a physical container of relations). The dominant logic in such spaces is one of “event rather than

embodied organisms do not overdetermine their representations (as Hansen would have it), but rather co-exist with them via complex intermediating networks. Ultimately, then, SRMP models a way in which sound disjunctively intervenes in constructions of presence and absence, opening its practitioners to a relational play that not only moves between those two poles, but also constructs them as poles (even as it is constructed by them).

Inevitably, this text falls prey in advance to the danger that it seeks to confront; namely, in the effort to “reverse the flow” of theory to practice, my use of (relatively) rational argumentation and conventional language as the medium of presentation renders my effort a paradoxical one. In response, I can only insist that my aim is not to construct a meta-perspective from which theories of posthumanism can be considered, but instead to investigate the flows and intensities that come to the surface when an effort is made to hold competing perspectives in tension with one another. To this end, the concluding chapter of this essay focuses less on summarizing the text’s claims than it does on emphasizing their contingency: if the body of the text—especially the “theoretical” chapters—tends to account for its fields of study in descriptive language, the final chapter reiterates the extent to which the rhetoric of this approach masks its own inevitable ideology. In this sense, the final chapter reminds the reader that while the text describes three technologies of posthumanism, it also performs a fourth.

It is fitting, then, that the text concludes by pointing outside of itself to the artistic work that accompanies it—*Agential Recombinant (AR)*—a work that probes many of the

[...] Euclidean [spatial geometry]” (McCaffery, cited in Cavell 2003: 157). This quality is often cited as a connection between acoustic space (as theorized by McLuhan) and contemporary theories of virtuality.

issues raised in the text. Moreover, if the written portion of the dissertation demonstrates the particular assumptions implied by different constructions of technological posthumanism, *AR* performs the ways in which these assumptions are themselves implicated in embodied activities, and thus (at least somewhat) elude our rational control. If the piece is thus characterized by disjunction—by a cognitive and embodied dissonance of incommensurable posthuman embodiments—this does not mean that it has miscarried its aims, but rather that it truly breathes in tandem with its sister text, each asking after the ideologies that simultaneously support and undermine the other.

Prior to beginning this study, I noticed both that the term “posthumanism” was cropping up with increasing frequency, and that it seemed to be grossly underspecified. As I investigated further, I came to realize that the term in fact carries numerous—often contradictory—meanings, and that, moreover, there is frequently slippage between meanings both within and between texts. Quite quickly, I came to realize that these slippages (combined with certain assumptions) were regularly constitutive of a particular author’s understanding of what posthumanism is, and also motivated their thinking with respect to what it should be. Naturally, I became quite skeptical of the term, and thereby sought to uncover the particular ideologies that underwrite its most common constructions; this dissertation is that critique, and is emphatically not a promotion of any particular kind of posthumanism, nor of categorical posthumanism in general (I’ll explain the “categorical” qualifier in a moment).

What I soon realized in my investigations was that, while some of the scholarship on posthumanism was advocating a narrative of technological progressivism, most of it

was in fact contesting (or at least troubling) this approach. Moreover, I realized that posthumanism was partially defined by this contestation, even (and especially) if posthumanist claims are not necessarily. Thus, I came to an understanding of posthumanism that, at its base, consists in four interlocking elements: firstly, that the term “human” has a discursive valence; secondly, that this means that any privilege afforded the human is, by definition, ideological; thirdly, that that these features combine to present a perspective that is shared among otherwise diverse disciplines such as technology, animal, and disability studies; and fourthly, that *recognition* of this particular contingent status can—and does—inform contemporary theoretical discourse. Thus, the only posthumanism that I assume in this dissertation is a discourse of posthumanism, namely that numerous and diverse scholars in the humanities, arts and sciences are all producing a copious amount of work revolving around the term. In this sense, I wholeheartedly agree with the basic tenets of posthumanism, inasmuch as one can agree or disagree with an unfalsifiable assertion. Precisely as such, though, my project does not make posthumanist claims in that it does not aim to categorize human-technology relations, nor to definitively account for a history of technology, nor to account for the history of the term human. Instead, my project is a discourse analysis of three dominant readings of technological posthumanism, each of which is itself posthumanist (in that each is predicated on a denaturalized notion of what a human is, but each also proffers an account of what this means).

In this clarification, I hope to address a general skepticism (towards the term posthumanism) that I have sometimes encountered when disseminating earlier segments of this study. In short, I would first suggest that being skeptical towards posthumanism is

rather like being skeptical towards postmodernism: one can argue that it doesn't exist in the sense that there is no marked departure from a robust understanding of what has been retroactively named "modernism" (where the latter is often presented in a "straw-man" version), but it is impossible to argue that a discourse of postmodernism doesn't exist. What bears noting in the analogy, then, is that the oft-cited proximity of postmodernism to capitalism (for example) is a critique that could not be made if one refused to acknowledge that postmodernism has a discursive value that is distinct from that of modernism. Similarly, my critiques of posthumanism each articulate a different discursive orientation of the term, each of which has its own issues that I attempt to raise.

In addition to general skepticism, a more convincing objection to the term posthumanism is sometimes made through the claim that it offers nothing that is not found in (for example) theories of alienation. Certainly (and thankfully), there do exist important continuities with earlier discourses, many of which I discuss in the context of the theorists who raise them.¹⁷ In the case of alienation in particular, Neil Badmington notes its role in posthumanism's provenance, arguing (*via* Althusser) that it is Marx and Engels who "make possible a '*theoretical anti-humanism*' in which there is an awareness that radically different material conditions of existence produce incompatible subjectivities" (Badmington 2000: 5). Moreover, (as I note in chapter three) Arendt's notions of "world" and "earth" alienation specifically orient the discourse towards alienation in its technological aspect, and ultimately drive her in a struggle for plurality against transcendence that anticipates the projects of some discourses of posthumanism.

¹⁷ Derrida, for example, figures prominently throughout the dissertation, since he is often cited by the theorists in question, as are Lacan and McLuhan (to name only two more).

Clearly, then, the general thrust of alienation's diagnosis of the separation of things that are intrinsically linked is *a propo* to the discourse of posthumanism.

However, important differences also obtain, and I would argue that this is the case both performatively and constatively. With respect to the former, while the concept of alienation is often applicable in the discourse of posthumanism, the particular ideologies that the terms are placed in service of are often so different that equating them risks reifying both: if alienation diagnoses an existing condition, posthumanism tends to orient itself towards emphasizing what is produced by this condition. Indeed, this manifests in their constative differences: the tendency of theorists of alienation to grieve or mourn a loss does not obtain to the same extent (or in the same ways) in the discourse of posthumanism. In this respect, I would suggest that posthumanism is necessarily aware of itself *as a discourse* in a way that alienation may not be.¹⁸

With these points in mind, the final point I would make on this subject is that while Adorno's project of attending to particulars against the totalizing logic of mass production (which, he argues, recursively constructs culture and society) is within the purview of posthumanism, citing this project as an authority in the discourse of posthumanism risks veering away from precisely this project. That is, mounting a critique

¹⁸ To reiterate, though, even ceding an absolute continuity between the discourses of alienation and posthumanism (which I do not) would not really undermine the study at hand, which critiques the ways in which the term posthumanism has been taken up rather than the term itself. Moreover, such a claim would necessarily have to justify its own choice of terms: what assumptions are built into the term "alienation" that would authorize it over the term actually chosen by the theorists under consideration?

from outside the discourse (rather than simply holding a thinker to the implications of their own thoughts) seems disingenuous at best: not only would such an approach risk derailing the argument at hand, but it may also have the distinct disadvantage of making unavailable the particular points at which theorists contradict themselves.¹⁹ To a certain extent, this is simply an operational preference on my part (i.e. I'd prefer to turn theorists back on themselves, rather than appealing to an outside authority), but it is one that draws on the force of Adorno and Horkheimer's "immanent critique" (perhaps the *moreso* for not citing them—as uninterrogated authorities—specifically) to take up the matter at hand in a way that avows its historical and material specificity.

Finally, I hope these clarifications make it clear that the artistic analyses presented in this study are not intended to label certain works as "posthuman" while excluding others. Indeed, I hope that the discussion of the piece *Sound* in chapter five will reinforce the point that technological posthumanism constitutes a lens through which these works are considered (and *vice versa*) that might well also be directed at non-digital artistic practices. In short, then, the artistic analyses are intended to probe the principles of

¹⁹ In the case of Hayles, for example, I note that she offers a gross misreading of Lacan in her early work; while she later corrects this, she does not "give up what she wins" from the early reading in this correction, which refusal renders a significant portion of her argument suspect. If I had simply said "Hayles' reading of Lacan is wrong" I would have lost the opportunity to discover what precisely this particular misreading is put in service of (which, again, is the aim of my dissertation). Instead, my approach is to show what is accomplished in her particular deviation from Lacan...the assumption being that any reiteration of Lacan will necessarily deviate in some way.

technological posthumanism in a practical and material way. In this, the point is not to claim that the technologies these works employ are radically new, but rather that they intersect with their sister strains of technological posthumanism in an ever-changing material discourse. As such, the value of such material instantiations is not found in its being demonstrative of a particular version of technological posthumanism, but rather in the critiques that are enacted.

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