

DIFFERENCE, IDENTIFICATION, EVOLUTION:
POSTHUMANISM AS PARADIGMATIC SHIFT
IN CONTEMPORARY SPECULATIVE FICTION

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BETHANY DOANE

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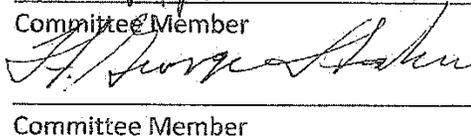
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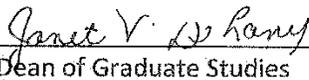
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Date


Committee Member

21 May 2013
Date

Committee Member

Date


Dean of Graduate Studies

May 23, 2013
Date

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ABSTRACT

Difference, Identification, Evolution: Posthumanism as Paradigmatic Shift in Contemporary Speculative Fiction

Bethany Doane

This study is an initial attempt to investigate the ways that posthumanism manifests within three works of contemporary speculative fiction: Margaret Atwood's *Oryx and Crake* (2010), Kazuo Ishiguro's *Never Let Me Go* (2005) and Richard Powers's *Galatea 2.2* (1995).

Posthumanism seeks to overturn the assumptions of liberal humanism, which places "the human" as the central, most important, and possibly *only* ethical subject in order to recognize *inhuman* beings—whether they be animal, clone, or artificial intelligence—as legitimate ethical subjects. At the same time, it recognizes that human beings and technology are intimately bound together. Therefore, it is impossible to "escape" the human through technological culture (as *transhumanism* might suggest) or to "return to nature" by eschewing technology and culture altogether. Each of these three works addresses these posthumanist assertions, employing various narrative techniques to reinforce both the ethical status of non-humans and the embedded nature of human technological culture.

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INTRODUCTION

Posthumanism and the Other: An Evolution of Understanding

We live in a world of hypotheticals, where “what if” scenarios guide our sense of identity in the types of decisions we make and also shape our sense of ethics. *What if I found a wallet full of money on the street?* We ask ourselves these types of questions to develop self-understanding, to determine who we “are” (in the existential sense, at least in that particular moment). Speculative fictions magnify these “what ifs” on a grand scale to test the nature and behavior of society as a whole. *What would happen if human cloning became not only possible, but pervasive and commonplace?* In the same way that the daily imagination of a hypothetical situation draws out real ethical dilemmas, these stories also provide an imaginary space to play out potentially *real* ethical scenarios as well, particularly as they pertain to developments in science and technology.¹ The rapid development of technology in the twentieth and now into the twenty-first centuries, combined with postmodernist and deconstructive approaches to both “humanity” and the “Other,” have led to the development of the area of inquiry known as *posthumanism*, also

¹ Though also, of course, as they may pertain to politics or other social behavior, such as in the common speculative fiction sub-genre of historical revisionist novels (*What if the South had won the Civil War?*).

sometimes referred to as “the posthuman,” which confronts, but also awakens, cultural anxieties about what it means to be human in the face of these new technologies and new understandings.

So what do we mean by posthumanism or “the posthuman?” Despite the fact that these terms have been floating around academia since at least the 1970s, there is often confusion—and sometimes debate—surrounding what, precisely, these terms should mean. Part of the confusion surrounding posthumanism, I believe, arises out of the word itself: to be “post-human” is to come after the human, whether literally as in post-apocalyptic narratives and science fiction, or after humans have somehow *transcended* their humanity through technology, evolution, or both. Post-human-*ism*, on the other hand, suggests not what comes after the human being, but what comes after the ethical and philosophical suppositions of *humanism*. While questions of transcendence, evolution, and technology are certainly relevant to posthumanism, my understanding and interpretation of the term comes more as a response to this second approach, i.e. what comes after humanism, but bearing in mind the impact of what the first term, the post-human, may imply as well. In other words, how do we reconceptualize what it means to be human in light of new technologies and scientific knowledge but also in light of the fluidity of boundaries between human, animal, machine, and thing?

Here I propose to examine the ways that posthumanism emerges both in literature and as a mode of thought within culture in general, particularly as it relates to ideas of *difference* (the “human difference” as well as the concepts of Otherness), *identification* (with the Other—both human and inhuman), and *evolution* (in both the anthropological sense and in terms of thought paradigms). I will link these notions and ground them in philosophical and theoretical conceptions of posthumanism by examining how they are manifest in three contemporary works of speculative fiction: Margaret Atwood’s *Oryx and Crake* (2010), Kazuo Ishiguro’s *Never Let Me Go* (2005), and Richard Powers’s *Galatea 2.2* (1995). The work that has contributed to this field and these particular elements ranges widely in breadth and depth from early Enlightenment philosophers like René Descartes, who established the basic approaches to humanistic thinking that posthumanism seeks to overturn, to contemporary theories of neural networks and artificial intelligence that allow us to understand, rather than just speculate on, how the human brain stores knowledge, and what this might mean in terms of consciousness and self-awareness. Along the way are those philosophers who build the groundwork for posthumanism by conceptualizing phenomenological and epistemological understanding, as well as approaches to the Other (Hegel, Heidegger, Sartre, Levinas, Lingis) as well as those who have contributed to the deconstruction of humanism as a limited and limiting way of thinking (Heidegger again, Foucault,

Derrida). But perhaps most important, of course, are those scholars and theorists working directly with posthumanism itself. Aside from the broad philosophical, theoretical, and scientific contexts out of which posthumanism emerges, the authors and works that have been the most influential in my own formulation of what it means to be posthuman (or posthumanist) are N. Katherine Hayles's *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*,² Cary Wolfe's *What Is Posthumanism?*,³ Neil Badmington's *Alien Chic: Posthumanism and the Other Within*⁴ (as well as his edited collection of foundational essays and excerpts on the subject, called simply *Posthumanism*⁵), and Elaine L. Graham's *Representations of the Post/Human: Monsters, Aliens, and Others in Popular Culture*.⁶ I list them in this order, rather than chronologically, because it is in this order (of increasing relevance) that they have been the most influential.

The Hayles book, *How We Became Posthuman*, was useful for its treatment of the mind/body problem, particularly as it pertains to cybernetics and artificial intelligence, areas where Cartesian dualism

² Chicago: The University of Chicago Press, 1999.

³ Minneapolis: University of Minnesota Press, 2010.

⁴ New York: Routledge, 2004.

⁵ New York: Palgrave, 2000.

⁶ New Brunswick: Rutgers University Press, 2002.

threatens to creep back into otherwise materialist science through the notion of inscription, rather than incorporation (i.e., the anxiety that consciousness is somehow “written” into our bodies as *information*, rather than contained within its physical state). Hayles emphasizes the importance of embodiment and attempts to redirect the “posthuman” focus away from ideas of immortality and disembodied consciousness, and toward a new treatment of subjectivity:

my dream is a version of the posthuman that embraces the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality, that recognizes and celebrates finitude as a condition of human being, and that understands human life is embedded in a material world of great complexity, one on which we depend for our continued survival.⁷

This recognition of materiality and the necessity of corporeity is essential to my understanding of posthumanism. However, Hayles’s book conceives of “the posthuman” in a way that signifies anxieties surrounding technology that threatens to not just break free from the constrictive liberal humanist conception of the human subject (as does my understanding of posthumanism), but to destroy individual subjectivity altogether: “The posthuman subject is an amalgam, a collection of heterogeneous components, a material-informational entity whose boundaries undergo continuous construction and

⁷ Hayles, *How We Became Posthuman*, 5.

reconstruction.”⁸ While I believe it is important to address the potential for erasure of difference, or erasure of identity, through posthumanist acknowledgement, Hayles’s description of “the posthuman” is different from my understanding of *posthumanism* as a way of relating to the Other.

Rather than a literal erasure of boundaries between subjectivities, which become enmeshed and de-individualized (as occurs in what Hayles describes as “the posthuman”), my conception of posthumanism allows for the continued recognition of individual subjectivities, but broadens the qualifications for what might “count” as a legitimate or valuable subject position.⁹ Despite these differences in conceptualizing what we mean by “the posthuman,” Hayles’s work, and particularly her chapter that deals with artificial intelligence, was essential to my research, particularly on *Galatea 2.2*, which she discusses directly in her chapter on “Mapping the Posthuman.”¹⁰

Cary Wolfe’s *What is Posthumanism?* (2010) provides, rather than the easy introduction that its title might suggest, a detailed look at the

⁸ *Ibid.*, 3.

⁹ Chapter two provides an elaboration on the differences between “the posthuman” and *posthumanism*, in the ways that these two terms conceive of the posthuman(ist) subject.

¹⁰ The section on *Galatea 2.2* in *How We Became Posthuman* is based on a separate article, which was also invaluable to my research: N. Katherine Hayles, “The Posthuman Body: Inscription and Incorporation in *Galatea 2.2* and *Snow Crash*,” *Configurations* 5 no. 2 (1997): 241-266.

deconstructive roots of posthumanism and how the field intersects and overlaps with animal studies. The book is also useful in distinguishing between transhumanism and posthumanism—two arenas that are often mistaken for each other, especially in “popular” conceptions of posthumanism (and “the posthuman”). While my research does not deal directly with the overlapping field of animal studies, Wolfe’s work was and is nevertheless essential to my understanding of posthumanism as a paradigmatic shift in ethical considerations of the non-human Other and of deconstructing Enlightenment and liberal humanist notions of what constitutes the ethical subject. His ideas about the importance of suffering (following Martha Nussbaum’s *Frontiers of Justice* [2006] and borrowing from Jeremy Bentham) and the inescapability of finitude are important recurring themes in both *Never Let Me Go* (2005) and *Galatea 2.2* (1995). Where Hayles’s book provides the first stepping-stones toward addressing anxieties raised by notions of posthumanism, Wolfe’s book establishes a grounding of posthumanism in our relation to the inhuman Other in the form real ethical subjects—in this case, the animal.

Neil Badmington’s introductory reader, *Posthumanism* (2000), provides a more accessible overview of the tendrils of historical and philosophical thought that play out in the various notions of what posthumanism means. It provides a starting point for “reaching back” into posthumanism’s roots, while also “glancing sideways” at the ways posthumanism intersects and may form a dialogue with gender studies.

While, again, my work here does not address concepts of gender in terms of posthumanism, this book's introductory readings, and the collection's bibliography, were invaluable for building a better theoretical base for understanding posthumanism. Badmington's other foray into posthumanist theory, *Alien Chic: Posthumanism and the Other Within* (2004) was crucial for my work, as it delves into the speculative and examines the hypothetical "alien" as a seat for posthumanist understanding, especially in popular culture. Here Badmington points out the ways that speculative and science fictions have, through their construction and depiction of the alien, reinforced the human/Other binary that is already extant in our culture's relationship with animals. He suggests, however, that posthumanism (following the postmodern and deconstructive work of he draws on in *Posthumanism*, such as Barthes, Baudrillard, Foucault, Lyotard, and Derrida) is beginning to break down the "versus" boundary separating human and alien—and therefore, symbolically, between subject and object, self and Other.

Elaine Graham's *Representations of the Post/Human: Monsters, Aliens, and Others in Popular Culture* (2002) is by far the most relevant to my work here. While her terminology in describing the "post/human" differs from others' usage (and, as far as I can tell, has not re-appeared in subsequent work on the subject), her concept of posthumanism (or post/humanism) falls precisely in line with that of Wolfe or Badmington—i.e. the deconstruction of humanist notions in relation to

the (non-human) Other. Graham draws on cultural myth and science fiction as they have been used to represent anxieties about technology, and what these might mean for notions about “humanity:”

. . . [T]he logic of erosion, dehumanization, and obsolescence are simply metaphors for, not predictions about, post/human development. They are themselves devices of representation by which the distinctiveness of human nature is discursively constructed. The only way of talking about human nature is via a series of paradigms or topographies plotted and interrogated through the shifting territory of the human and almost-human. This discursive turn is reflected in poststructuralist representations of identity and subjectivity, in which the “end of the human” signals the radical interrogation of any appeal to essentialism or foundationalism.¹¹

Myth and speculative fiction, in other words, provide a constructed location for the symbolic exploration of the “limits” of humanity, or the transgression of human boundaries set forth by humanism and upheld by “common-sense” understanding. She calls this erosion of boundaries a threat to the “ontological hygiene” of humanity “or a rendering transparent of the very constructed character of the parameters of human nature.”¹² While each of the previous authors discussed has made essential contributions to the formulation of what posthumanism means, Graham draws on all of the essential concepts (humans’ relationship with technology, embodiment, Otherness, deconstruction of

¹¹ Graham, *Representations . . .*, 15-16.

¹² *Ibid.*, 20.

boundaries, and the imaginary space of science or speculative fiction) in order to articulate the functional goals of posthumanism.

From Humanism to Posthumanism

At the core of humanist thought is the notion that there is some central, unifying factor of all human existence—what one might call a fundamental human essence or human nature. This idea, as well as the term *humanism* itself, came under scrutiny after World War II, as a wave of what has been called “anti-humanism” arose in Western European philosophy. In the late 1940s, Martin Heidegger criticized the reliance on “-isms” in general, but humanism in particular. His *Letter on Humanism* (1947) denounced the metaphysical understanding humanity in terms of this immaterial essence. Roughly 20 years later, in *The Order of Things: An Archaeology of the Human Sciences* (1966) Michel Foucault stated that “. . . as the archaeology of our thought easily shows, man is an invention of recent date. And one perhaps nearing its end.” What he meant by this is that the humanist notion of “what it means to be human,” was, in fact invented during the Enlightenment and designed to apply to a very specific subset of the earth’s total population. To quote Elaine Graham’s *Representations of the Post/Human*, she says of Foucault: “He debunked the ontology of humanism. In his work . . . the pathological, the outcast, the abject and the almost-human consistently feature as indicators of

the limits of the normatively human.”¹³ In other words, the humanist notion of “the human” is both limited and limiting, constructed based on a very specific human experience that is not, and has not been, shared by all (or perhaps even *most*) of the human species. Foucault’s work indicates that humanism has been “falling apart” since at least the middle part of the 20th century.

While humanism relies on rationalism and the suppression of the religious or supernatural, it also subscribes to a belief in human exceptionalism, a separation of the human being from other animals and entities (such as deities), and the belief that humans can “rise above” their natural instincts toward some version of human perfection—whether that perfection be physical, moral, or intellectual. In this way, Cary Wolfe (following in the footsteps of Heidegger and Foucault) argues, that humanism itself is a system of beliefs, not dissimilar to a religion, that is dependent upon certain philosophical assumptions. He explains that, “humanism is, in so many words, its own dogma, replete with its own prejudices and assumptions—what Étienne Balibar calls ‘anthropological universals,’ which are themselves a form of the ‘superstition’ from which the Enlightenment sought to break free.”¹⁴ Humanism is an anthropocentric mode of thinking that insists upon

¹³ Elaine Graham, *Representations of the Post/Human*, 13.

¹⁴ Wolfe, *What is Posthumanism*, xiv.

humanity (as a narrowly defined category) as the central, and potentially only valid or valuable, subject.

Posthumanism, then, represents a shift in that thought—a new paradigm for understanding what it means to be human. As Katherine Hayles describes in *How We Became Posthuman*,

The Posthuman does not really mean the end of humanity. It signals instead the end of a certain conception of the human, a conception that may have applied, at best, to that fraction of the humanity who had the wealth, power, and leisure to conceptualize themselves as autonomous beings exercising their will through individual agency and choice.¹⁵

Here, Hayles draws an implicit connection between posthumanism and postmodernism and deconstruction, since posthumanism, too, posits and explores the breakdown of traditional hierarchical dichotomies, and the malleability of barriers and boundaries. Posthumanism moves away from traditional categorizations and hierarchical structures in favor of a more fluid definition of humanity. This movement signifies not the “end of humanity” as we know it, nor the end of “the human,” but the end of a way of *thinking* about humanity. Specifically, it represents that end or death of humanism described by Marx,¹⁶ Heidegger, and Foucault. Posthumanism is a paradigm shift that moves beyond the ideologies of human exceptionalism.

¹⁵ 286.

¹⁶ See, for example, Louis Althusser’s “Marxism and Humanism” in *Posthumanism*, ed. Neil Badmington (New York: Palgrave, 2000): 30-34.

This shift, which began with the anti-humanism of Marx, Heidegger, and Foucault, continued in the realms of deconstruction, postmodernism, post-colonialist theory, and subaltern studies, where notions of identity, power, and difference were—and still are—closely scrutinized. These methods of breaking down culturally and linguistically constructed boundaries are taken even further in posthumanism, as well as in its “sibling branches” of animal studies,¹⁷ and object-oriented ontology.¹⁸ Posthumanism recognizes the potential subjective position of the *inhuman* Other, which may be a dog, a dolphin, or an extraterrestrial. It celebrates difference, but it also relies on some essential “likeness” or sameness—which allow for a potentially intersubjective exchange that has previously been reserved for human-to-human interactions.

So the question may arise, “Why posthumanism, and why now?” The last sixty years have witnessed enormous leaps forward in technology that have given rise to questions about not only what machines are capable of, but what human beings might be capable of

¹⁷ Cary Wolfe has done significant work in establishing the links between posthumanism and animal studies. See, for example, his *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory* (2003) or *Zoontologies: The Question Of The Animal* (2003). Donna Haraway has also addressed these issues in *When Species Meet* (2007).

¹⁸ Object-oriented ontology is another branch of metaphysical study that de-emphasizes the human experience as privileged over the existence of inhuman subjects. See, for example, Graham Harmon’s *Tool-Being: Heidegger and the Metaphysics of Objects* (2002) or *The Quadruple Object* (2011). Also, Ian Bogost’s *Alien Phenomenology: or What It’s Like to Be a Thing* (2012).

when assisted by this technology. Hopes, fears, and anxieties about what these new technologies might bring raise questions about what it means to be human at all. For example, are there limits to we can consider “humanity” after massive alterations by technology, or is the category itself too problematic to begin with? An analysis of human evolution and cognitive anthropology indicates that culture (and all its attendant technologies) is integral to “the human.” The “prosthesis” of computer technologies or body alterations, in this light, are simply extensions of our earliest technologies: the stone, the shovel, the scythe.

“Transcendence” through technology, then, is impossible, since these extensions, alongside biology, are constitutive of what it means to be “human” in the first place. Perhaps a better-phrased question might be, “What, in the posthumanist era, constitutes an ethical subject, once the limits set forth by humanism have been deconstructed?”

Ihab Hassan, in 1977, investigated the apparent breakdown of humanism in the face of deconstruction, and was one of the first critics to use the term *posthumanism* as a way of describing this dissolution. He says in his article, “Prometheus as Performer: Toward a Posthumanist Culture?,”

At present, posthumanism may appear variously as a dubious neologism, the latest slogan, or simply another image of man’s recurrent self-hate. Yet posthumanism may also hint at a potential in our culture, hint at a tendency struggling to become more than a trend. . . .

We need to understand that five hundred years of humanism may be coming to an end, as humanism

transforms itself into something that we must helplessly call posthumanism.¹⁹

Hassan laments the fact that this new way of thinking unfortunately calls for another dreaded “-ism,” (he was surely aware of Heidegger’s mistrust of the dubious suffix) but in this case, the “-ism” is pre-existing—it is the newly added “post-” that creates the neologism. And while the use of “posts” themselves may be problematic (at what point is posthumanism no longer “post”? How do we situate these various “posts” in long-term chronology?), posthumanism is not at this point (nor was it in 1977) a superfluous neologism. It marks a moment in human understanding that recognizes both our embodied nature and our reliance on and co-evolution with technology, as well as a shift in our relationship with the Other, namely that ethical subjectivity is no longer (nor was it ever?) firmly rooted in the problematic category of “the human.”

This shift in understanding manifests itself in contemporary speculative fiction, and here I will examine three instances where this is the case. Each of these three fictions—Atwood’s *Oryx and Crake*, Ishiguro’s *Never Let Me Go*, and Powers’s *Galatea 2.2*—depicts and demonstrates an important step toward the paradigmatic shift from humanist thinking to posthumanism—sometimes through resistance,

¹⁹ Ihab Hassan, “Prometheus as Performer: Toward a Posthumanist Culture? A University Masque in Five Scenes,” *Georgia Review* 31 (1977), 843.

but often through acquiescence and acknowledgement. This paradigmatic shift offers an opportunity for “real” people, outside the realm of the speculative or the imaginary, to experience an ontological and epistemic transformation of human identity, culture, and their relationship with the Other.

On “The Human Difference,” Species, and Evolution

Research into animal cognition has shown that the beliefs that animals lack complex cognitive abilities, or that they have no intelligence, rationality, or capacity for language (following Descartes’s idea that animals are non-rational automatons) are unfounded. In reality, many animals are quite capable of rational thought, problem-solving, future-planning, and even complex language. For example, chimps and gorillas have been taught to use sign language with which they express themselves quite clearly; dogs can connect two-dimensional images to their real-life counterparts; and dolphins can invent creative new tricks on their own and learn to read two-dimensional symbols.²⁰ Yet no dog or dolphin has ever built a skyscraper or written a sonnet. So what can account for this vast difference in the levels of creative production including written language, the arts, and technology? Evolutionary anthropologist Michael Tomasello posits that there is a minor (though

²⁰ Virginia Morell, “Minds of their Own: Animals are Smarter than You Think.” *National Geographic* (online), March 2008. <http://ngm.nationalgeographic.com/2008/03/animal-minds/virginia-morell-text/1>

with enormous implications) cognitive difference that has allowed the human species to create complex structures of thought and technology. In his article "The Human Adaptation for Culture," he explains that "many anthropologists now believe that in the 2 million years of the existence of genus *Homo*, it has only been during the past several hundred thousand years, with the rise of something like modern humans, that the unique aspects of human cognition have come into full bloom."²¹ In this short period of time, no biological evolution could explain so many changes. "If we are searching for the origins of uniquely human cognition, therefore, our search must be for some small difference that made a big difference—some adaptation, or small set of adaptations, that changed the process of primate cognitive evolution in fundamental ways."²² In other words, the "human difference" that allows humanity to appear so much more "advanced" than other species is not a matter of vast biological evolutionary difference, but of a small (yet profound) cognitive one. This small difference, Tomasello says, is the ability to view others as intentional agents like the self—it is our ability to *identify with the other*.

While research into animal behavior indicates that other species can communicate and even imitate to a certain extent, they do not have

²¹ Michael Tomasello, "The Human Adaptation for Culture," *Annual Review of Anthropology* no. 28 (1999), 510.

²² *Ibid.*

the same recognition of intentionality that humans have. It is this ability—to recognize not only the actions and creations of another but also their *purposes*—that has allowed humans to accumulate knowledge and artifacts into what we call culture, which, for Tomasello, is “the human difference.” While some animals are able to produce elements of culture—chimpanzees create tools for specific purposes, as do certain birds (crows, for example), many other primates live in complex social structures, and several species have a basic representative language—none of these elements accumulate and evolve across populations or over many generations. Human culture, on the other hand, is *collective*; it is shared among social groups over many generations. What appears to be exclusively human is the ability to *transfer* knowledge and material culture between and across generations, and also the ability to recognize the purpose of a thing (the intention for which it was created), and to improve upon it through adaptation or modification. Tomasello calls this process “cumulative cultural evolution,” which works because of a “ratchet effect” in which “individual and group inventions are mastered relatively faithfully by conspecifics, including youngsters, which enables them to remain in their new and improved form within the group until something better comes along.”²³ This accumulation of culture is made possible by a particular social-cognitive adaptation:

²³ *Ibid.*, 512.

. . . the ability and tendency of individuals to identify with conspecifics in ways that enable them to understand those conspecifics as intentional agents like the self, possessing their own intentions and attention, and eventually to understand them as mental agents like the self, possessing their own desires and beliefs.²⁴

In other words, it is not only an awareness of the *self* as an intentional agent with goals and a mental state, but an awareness of *others* as intentional agents as well that has allowed humans to learn imitatively, transmit culture, and modify technology in such a cumulative and expansive way. In terms of humanist and posthumanist distinctions, it seems that this would be the same cognitive adaptation that would allow for the recognition of what is “human” (conspecifics, those that are “like me”) and what is “other.” It is the *existence* of our “human difference”—the cognitive ability to identify with the other—that has allowed us to develop the technological and intellectual culture through which we are able to recognize, name, and deconstruct the very existence of that difference.

In a vein similar to Tomasello’s work, Peter Richerson and Robert Boyd’s book *Not by Genes Alone: How Culture Transformed Human Evolution* describes the process and importance of *co-evolution* between culture and biology: “The coevolutionary dynamic makes genes as

²⁴ Michael Tomasello, *The Cultural Origins of Human Cognition*, Kindle Edition (Cambridge: Harvard University Press, 1999), np.

susceptible to cultural influence as vice versa.”²⁵ Because human behavior is influenced by culture (how we dress, what we eat, who we imitate), and this behavior in turn affects natural selection—the process by which favorable traits are “selected” and passed down to further generations—we can see the emergence of culture as influential over biological evolution. When cultural behaviors are seen as favorable within a social population (certain individuals might, for example, be considered more creative and therefore attractive because of their abilities), or when physical traits are seen as favorable by a particular culture (think of the various “ideals of beauty” in different cultures), both the cultural traits and the genes associated with these individuals will be passed on through imitation and biological reproduction (respectively). Of course, biological evolution occurs much more slowly than cultural evolution, which explains why humans are 96% genetically similar to our ape cousins the chimpanzees (and “the vast majority of those differences are not biologically significant”),²⁶ yet we are monumentally different in terms of culture—because cultural evolution operates across social

²⁵ Peter Richerson and Robert Boyd, *Not by Genes Alone: How Culture Transformed Human Evolution*, Kindle Ed. (Chicago: University of Chicago Press, 2005), np.

²⁶ Stefan Lovgren, “Chimps, Humans 96% the Same, Gene Study Finds,” *National Geographic News* (online), August 31, 2005.
http://news.nationalgeographic.com/news/2005/08/0831_050831_chimp_genes.html

populations at the level of *behavior*, not biology. Richerson and Boyd explain,

Some individuals may discover ways to cope with the new situation, and if the not-so-smart and not-so-lucky can imitate them, then the lucky or clever of the next generation can add other tricks. In this way the ability to imitate can generate the cumulative cultural evolution of new adaptations at blinding speed compared with organic evolution.²⁷

It is a circle of influence, then, between biology and culture—a kind of feedback loop—that allows humans to appear so “different” from other species. We are, in a sense, *spiraling upward* (or perhaps downward, depending on one’s perspective) into an evolutionary emphasis on culture rather than any biological or “natural” fitness. This may explain why humans seem so “out of tune” with nature, especially when compared with other species. Nature is no longer selecting us. Culture is.

The Prometheus Myth

In mythological terms, the moment at which humans became “different” has generally been conceived of as a fall from grace, a moment of separation from both gods and nature that isolated mankind but also elevated him. In short, it is a perfectly humanist moment. In the Book of Genesis, for example, when Adam and Eve eat from the tree of knowledge, “the eyes of them both were opened, and they knew that they were naked; and they sewed fig leaves together and made themselves

²⁷ Richerson and Boyd, *Not by Genes Alone*, np.

aprons.”²⁸ The forbidden fruit gives them both self-awareness and a social awareness of the other, causing them to feel shame at their nakedness. It also inspires their first act of culture-making: sewing together some basic clothing. Adam and Eve are then expelled from the garden, a symbolic separation from nature, and made to toil the land—in other words, to develop agriculture.²⁹

In the Prometheus myth, the god Prometheus gives humans the gift of fire, which is, according to Aeschylus, “a teacher to mortals in every art and a means to mighty ends.”³⁰ Aeschylus’s Prometheus explains that humans “were witless before and I made them have sense and endowed them with reason ... though they had eyes to see, they saw to no avail.”³¹ In Aeschylus’s version of the myth, this gift of fire also teaches mankind mathematics, language, poetics and art, medicine, and animal husbandry (agriculture). The myth seems to reflect what evolutionary anthropology proposes about the human difference: that culture (the difference) emerged as the result of a cognitive shift that occurred at the “beginning of time” (i.e. at the beginning of what we would call the . The Prometheus myth has acted as something of an

²⁸ *The King James Bible*, Kindle Edition, Genesis 3:7.

²⁹ Perhaps not coincidentally, anthropologists have marked the emergence of agriculture as the birth of human civilization.

³⁰ Aeschylus, *Prometheus Bound*, trans. H. W. Smyth, electronic edition.

³¹ *Ibid.*

organizing principle for notions of posthumanism, as it provides a place where humanity, technology, myth, and the concept of Otherness all come together. For Posthumanism, it is a myth about the birth of technology and the ways that it has shaped humanity. As Ihab Hassan notes in his 1977 essay, “Posthumanism seems to you a sudden mutation of the times; in fact, the conjunctions of imagination and science, myth and technology, have begun by firelight in the caves of Lascaux.”³² The “birth” of this posthuman potential, then, has been with us all along. As Wolfe notes,

[posthumanism] comes both before and after humanism: before in the sense that it names the embodiment and embeddedness of the human being in not just its biological but also its technological world, the prosthetic coevolution of the human animal with the technicity of tools and external archival mechanisms (such as language and culture)...³³

Posthumanism ascribes to the Prometheus myth, then, a coincidence of the birth of culture and technology with the birth of the human.

Anxieties about technology reflect a kind of “failure” of the Promethean gift to effectively save the human species.

The concept of Prometheus’s gift (i.e., technology) as both blessing and curse will be explored further in Chapter 1 on Margaret Atwood’s *Oryx and Crake*. This chapter examines the spread and “disease” of human technological culture as humanism is replaced by

³² Hassad,

³³ Wolfe, *What is Posthumanism?*, xv.

instrumentalism in an increasingly bifurcated, and eventually apocalyptic, future. Chapter 2 discusses the establishment of the ethical subject in the “non-human” Other by examining Kazuo Ishiguro’s *Never Let Me Go*, which depicts the lives of three clones, also the victims of an instrumentalist culture that values them only for the “raw materials” of their organs, which are harvested for the sake of “real” humans. Chapter 3 probes the mind/body problem as it emerges in Richard Powers’s *Galatea 2.2* in the form of an artificial intelligence that becomes self-aware. All three novels deal with the separation of science and the “humanities” and what this division might mean for the “posthuman condition.” Each establishes a fundamentally posthumanist position, though through very different narrative techniques.

CHAPTER 1

Burned by Prometheus' Gift: Posthumanism
and Cultural Disease in Margaret Atwood's
Oryx and Crake

We awake with Snowman into a post-apocalyptic world transformed by the technologies of mankind. Global warming has forever altered the earth's landscape: the seasons, the tides, even the strength of the sun. Snowman comes to in a tropical jungle that was once the northeastern United States, where genetically modified plant and animal life runs wild over the remains of human civilization. He is the Last Man, sleeping naked in a tree like our primitive "arboreal ancestors," wrapped in a filthy bed-sheet and surviving on the remaining scraps of an otherwise extinct humanity. This is how we enter the world of Margaret Atwood's 2003 novel *Oryx and Crake*. Through a series of flashbacks, we learn that Snowman is really Jimmy, the privileged child of a dystopian future where powerful biotechnology and pharmaceutical companies dominate a global culture turned sour. This world is divided into the Compounds—pristine, walled-in communities where scientists and doctors work on new biotechnological advances that are distributed to the masses for profit—and the Pleeblands, dingy and miserable pluralistic cities and suburbs, full of disease and corruption, where the

“masses” live. In the time of the present, all of this, and almost all of humanity, has been wiped out by a vicious disease. Through Jimmy’s remembrances, we learn that his best friend, Crake, was responsible.

Aside from the deadly virus that killed most of the human race, Crake was also responsible for creating a new species of humans, the “Children of Crake,” who are perfectly adapted to this drastically altered earth, modified to remove all of the “imperfections” of humanity. These new-and-improved humans are presented as the last logical step in the evolution of humanity’s technological culture, which has “lifted us” above and beyond our natural limitations, and indeed, above nature itself. The existence of these “Crakers,” and the technological world out of which they were born, raises questions about what it means to be human—and posthuman—on many levels. The novel emerges as *literally* “post-human,” in the sense that it takes place after the death of mankind. It also explores the notion of the *transhuman* through the existence of the Crakers (who have “transcended” our inferior humanity). But most importantly, the novel takes a philosophically posthumanist position by criticizing both the humanist (and anthropocentric) roots of transhumanism and the *anti-humanist*¹ and instrumentalist philosophy

¹ *Anti-humanism*, in the sense described in this chapter, is slightly different from the “anti-humanism” of Marx, Heidegger, and Foucault described in the introduction. In the earlier sense, anti-humanism, like posthumanism, criticized Renaissance and Enlightenment humanism as limited/limiting. In the world of *Oryx and Crake*, anti-

of the pre-apocalyptic society that allowed biotechnology to spiral out of control. Atwood constructs this instrumentalism as a socio-cultural “disease” that devalues not only nature and the lives of animals, but also human life. Philosophical posthumanism emerges in the character of Jimmy/Snowman, who appears as a paradigmatic counter-point to Crake and his embodiment of this cultural disease.

If, as Atwood suggests in this novel, humans are evolving toward destruction by their own technology, it is important to understand the origins of this technological culture. The emergence of human culture is presented similarly both in mythology and in our current scientific understanding of anthropological evolution. In both fields, culture is what allows humans to “break” from the power of nature in ways that other species cannot. In other words, culture is the primary human difference. In mythology, the moment of this “break” is presented as a moment of intervention from some supernatural or divine “other,” and also as a sort of fall from grace. In both the Prometheus myth and the biblical myth of the fall of Adam and Eve, humans encounter some divine “other” (fire, in the case of Prometheus, and the forbidden fruit from the Tree of Knowledge in the Bible), which allows them to truly open their eyes for the first time. While Prometheus provides the “gift” of fire that

humanism is taken further, and more literally, as “against the human,” or against, particularly, the human’s biological integrity and status as an ethical subject.

allows humans to learn a whole host of skills and to produce technological culture, Adam and Eve are cursed for their knowledge, forced from the garden in a symbolic break from nature. But Adam and Eve are also, then, reliant upon culture: their awareness of their own nakedness forces them to produce clothing, and their expulsion from the garden drives them toward agriculture. *Oryx and Crake* combines these two approaches: our technological culture, at first, seems to be a gift that allows us to have dominion over nature. But as this technology evolves, uncontrolled, it also becomes a curse, born of hubris and an anthropocentric lack of respect for nature, that leads to humanity's ultimate destruction. The Promethean fire of Aeschylus's myth no longer just lights the world. It burns it down.

Aeschylus's *Prometheus Bound* (5th century B.C.E.) depicts Zeus as a vengeful god bent on destroying mankind. Instead, the Titan Prometheus, taking pity on humans, presented them with the gift of fire and taught them all of the arts, thus allowing for their survival. For this he was punished by Zeus, chained to a rock where he also endured numerous torments. Fire, in this story and in many later interpretations, comes to represent culture, and especially technological culture and the sciences. Prometheus says of fire that "from it they shall learn many arts" (line 256).² Here the term *arts* is translated from *techné*, which

² Aeschylus, *Prometheus Bound*, Kindle Edition, trans. H. W. Smyth (1999).

encompasses astronomy, mathematics, writing, animal husbandry, agriculture, medicine, divination, and mining (lines 459-507). From this single gift of fire, then, we can see all of *techné*—including all of modern technology—emerge.

The terrifying biotechnology of the dystopian future world of *Oryx and Crake* might be read as an extension of this gift, a logical conclusion to its progression and evolution over the course of human history. As Grayson Cooke notes in his article on Atwood's novel and its representations of technicity, "in the novel, language, writing, and thus technics are linked to the beginning and ending of 'life' and the 'human' as they are commonly understood."³ Accepting the common association between the birth of "humanity" and the emergence of language and technology (culture), *Oryx and Crake* emphasizes the (posthumanist) idea that human beings are inseparable from this culture, that we are embedded in it as it is embedded in us. Humanist myths like the Fall of Adam and Eve imply that nature and culture are irreconcilable, that in order to "re-integrate" with the divine and/or nature (the two are usually linked), humanity must eschew culture somehow, as Crake attempts to do with his apocalyptic plan to "replace" the tainted-by-culture humans with a "pure" substitute. However, his failure in this project—the

³ Grayson Cooke, "Technics and the Human at Zero-Hour: Margaret Atwood's *Oryx and Crake*," *Studies in Canadian Literature* 31 no. 2 (6 June, 2006): 105-125.

Crakers, by the end of the novel, have invented symbolic myth and other supposedly eliminated cultural practices—reinforces the posthumanist notion that nature and culture are not mutually exclusive but that our culture is a *product* of our nature (i.e. our biology/neurology, not to be confused with the elusive and humanist idea of “human nature”).

In both the biblical and the Promethean myths, the “divine spark” of the encounter with a kind of “forbidden insight” (in the form of fire or fruit) is also a curse that separates humans from the divine/nature. Drawing on both myths, the post-apocalyptic world of *Oryx and Crake* depicts an attempt at a “return to the garden” via *techné*. In the biblical story, Adam and Eve are cast out of paradise, forced to toil the land (with the *techné* of agriculture) and suffer the separation from both God (the divine) and the Garden (the natural). In this tale of the origins of humanity, the arts and technology are developed out of necessity after mankind is forcibly severed from its natural roots. The “fall” is disastrous; once the fruit of the tree of knowledge is tasted, it cannot be *untasted*—humans are doomed to toil and create, inventing technology in the hopes of finding some relief from their plight. But in Atwood’s story, humans (in the form of Crake) devise a way to return to that paradise: it is no coincidence that Crake’s secret compound where he creates his new species of human is called “Paradice.” The misspelling of the word is a clever and pointed way of demonstrating both the artifice of the project,

the fact that it is a man-made and artificial replacement for the “real thing,” and its position in a commoditized, slogan-filled landscape where all creations are slick products with clever names.

With the creation of these “improved” hominids (Humans, version 2.0), Crake has eliminated the need for human culture and re-created a version of mankind before the fall. The Crakers, he explains, have neither the need nor the capacity for culture:

It was amazing—said Crake—what once-unimaginable things had been accomplished by the team here. What had been altered was nothing less than the ancient primate brain. Gone were its destructive features, the features responsible for the world’s current illnesses. . . . Hierarchy could not exist among them, because they lacked the neural complexes that would have created it. Since they were neither hunters nor agriculturalists hungry for land, there was no territoriality: the king-of-the-castle hard-wiring that had plagued humanity had, in them, been unwired. They ate nothing but leaves and grass and roots and a berry or two; thus their food was plentiful and always available. Their sexuality was not a constant torment to them. . . .

In fact, as there would never be anything for these people to inherit, there would be no family trees, no marriages, and no divorces. They were perfectly adjusted to their habitat so they would never have to create houses or tools or weapons, or, for that matter, clothing. They would have no need to invent any harmful symbolisms such as kingdoms, icons, gods, or money.⁴

In this passage, Crake refers to the world’s “current illnesses” and the problems that have “plagued” humanity: human culture is tied directly to

⁴ Margaret Atwood, *Oryx and Crake* (New York: Doubleday, 2003), 305.

disease, which will be eliminated by what Crake calls the “immortality project.” Phase one is the BlyssPluss pill, which secretly contains the deadly virus to wipe out current humans (version 1.0), and phase two is these Children of Crake, the improved models, who are beset by none of humanity’s cultural illnesses. This new version of humanity is created in the laboratory of “Paradice,” but after the rest of humanity is wiped out, Jimmy leads them out of their protective dome where the project was developed and into reality: the brave new post-apocalyptic world that is now free from all the “malfunctions” brought on by human culture and technology. “And so they walked together through No Man’s Land . . . like a skewed parade or a fringe religious procession.”⁵ Jimmy leads them back to the garden and into a “real” paradise, restoring a new version of naked, innocent Adams and Eves to the pre-fall state.

There is a tendency to read the creation of the Children of Crake as “posthumanist” creatures, and indeed there are some who approach posthumanism from the perspective of transcendence that these beings seem to embody. Transhumanists examine the possibility of moving beyond the limits of what it means to be human in order to become “post-human.” Joel Garreau gives the definition set forth by the World Transhumanism Association of these post-humans as “beings whose basic capacities so radically exceed those of present humans as to no

⁵ Ibid., 353.

longer be unambiguously human by our current standards.

Transhumanism is their description of those who are in the process of becoming posthuman.”⁶ It is easy to see how this definition applies to the Crakers, particularly in light of Garreau’s statement that “transhumanists view human nature as ‘a work in progress: a half-baked beginning that can be remolded in desirable ways through intelligent use of enhancement technologies.”⁷ According to this definition, Crake and the other scientists who inhabit the world of the novel are certainly transhumanists, and perhaps even *post*-humanists—if we can accept some flexibility with this terminology—in that they seek to create these “post-human beings.” However, this reading misunderstands *posthumanism* in its paradigmatic sense—that is, as a break from Enlightenment notions of what it means to be human. Cary Wolfe explains that “my sense of posthumanism is the *opposite* of transhumanism, and in this light, transhumanism should be seen as an *intensification* of humanism” because it embraces the notion that becoming truly “human” involves eschewing our animal origins in nature as well as “the bonds of materiality and embodiment altogether.”⁸

Instead, Posthumanism opposes the “fantasies of disembodiment and

⁶ *Radical Evolution: The Promise and Peril of Enhancing Our Minds, Our Bodies—and What It Means to Be Human* (New York: Broadway Books, 2005), 231-2.

⁷ *Ibid.*

⁸ *What is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010), xv.

autonomy” that transhumanism advocates, embracing a more materialist perspective on human consciousness: humanity cannot “transcend” the body because humanity is contained *within* the body.

In his design of these innocent “noble savages,” Crake addresses the “ancient primate brain” that needed to be altered in order to eliminate the human tendency toward culture. This notion of an embodied proclivity for culture is supported by the work of evolutionary anthropologist Michael Tomasello, who has written extensively on the cognitive differences between humans and other primates that allow for the appearance of “human difference”—that is, the rapid development of human culture.⁹ According to Tomasello, a cognitive shift occurred in primate evolution sometime between 250 thousand and 2 million years ago that allowed human primates to identify with others,¹⁰ to see them as intentional agents like the self with distinct perspectives. This adaptation allowed humans to interact socially in a completely new way. Specifically, it allowed them to learn from each other—to transfer their knowledge across populations horizontally, and then to pass that

⁹ Michael Tomasello, *The Cultural Origins of Human Cognition*, Kindle Edition (Cambridge: Harvard University Press, 1999).

¹⁰ More recent research has narrowed this time-frame down to approximately 140,000 years ago. For more information, see Steve Olson’s *Mapping Human History: Genes, Race, and Our Common Origins* (Boston: Houghton Mifflin, 2002).

information on linearly to new generations. It also allowed humans to identify the purpose of cultural objects, such as tools, and to improve upon them through adaptation or modification. Tomasello calls this process “cumulative cultural evolution,” which works because of a kind of “ratchet effect” in which “individual and group inventions are mastered relatively faithfully by conspecifics, including youngsters, which enables them to remain in their new and improved form within the group until something better comes along.”¹¹ This adaptation for culture is important not only because Crake was able to “remove it” in order to create a better human that would no longer rely on culture, but also because it plays an important part in the distinction between “human” and “other” with which both humanism and posthumanism are concerned.

Humanism as a term, like posthumanism, presents some difficulty in attempting to explicate a singular and precise definition. As Tony Davies points out in his introduction to the subject, “humanism is a word with a very complex history and an unusually wide range of possible meaning and contexts.”¹² But in terms of its relationship to *posthumanism*, it is the assertion, rooted in the Renaissance notion of the human and articulated by early Enlightenment thinkers like René

¹¹ “The Human Adaptation for Culture,” *Annual Review of Anthropology* no. 28 (1999), 512.

¹² *Humanism*, Kindle Edition (New York: Routledge, 1997), np.

Descartes, that there is some universal human essence, which binds “us” all together, but also separates us from other species and beings (those of both “higher” and “lower” orders). During the Enlightenment, the idea of a unifying core of humanity through which we could all be understood was appealing. It allowed for the emergence of a new universal equality among mankind and resulted in the declarations of “human rights” that brought an end to slavery and established the roots of modern democracy. The notion of the “human essence,” however, set up a powerful dichotomy between human and inhuman that persists both in our world and in the futuristic world of *Oryx and Crake*. At its heart, humanism is not about the fact that humans are simply “different” (it would be difficult to argue that there is *no* difference between humans and any other species), but that this difference is hierarchical in nature: that it sets humans *above the other*. In Hegelian terms, it situates the human as “master” to the “bondsmen” of all Others. This hierarchical separation makes it difficult to recognize or consider the subjectivity of the Other—the epistemological and phenomenological hurdle that posthumanism aims to leap.

Developments in science and philosophy have laid the foundation for posthumanist thought by breaking down the notions of human essence and exceptionality. As Neil Badmington says in his introduction to posthumanism, “the crisis in humanism is happening everywhere.

Although it continues to be debated by critical theorists, the reign of Man is simultaneously being called into question by literature, politics, cinema, anthropology, feminism, and technology. These attacks are connected, part of the circuit of posthumanism.”¹³ Because Adam, Eve and the humans of *Prometheus Bound* receive their “difference” from a divine force—through contact with an “other”—these myths set up what seems to be a humanist distinction between human and non-human, both above and below on the hierarchical ladder. But there is an important difference between understanding the human difference as a biological/neurological one, rooted in a cognitive ability that allows for the production and transmission of culture, and the idea that humans were somehow “selected” by the divine for a special place amongst all other species of the earth. Humanism holds as its central tenet that all of mankind shares some kind of immaterial essence, an “absolute difference between the human and the inhuman” in the Cartesian sense.¹⁴ Posthumanism recognizes that the idea of a unified and superior “humanity” is a product of language, constructed by culture, that can also be destroyed—via deconstruction—in the same way. Human difference *does* exist, of course, but it is material, not essential.

¹³ *Posthumanism* (New York: Palgrave, 2000), 9. (From the editor’s introduction.)

¹⁴ *Ibid.*, 4.

Biological and cognitive capacity neither implies superiority nor grants a *carte blanche* license for universal exploitation of the inhuman other.

Understanding humanity and “the human difference” as essentially biological (material) is important for breaking away from the humanist notions of exceptionalism and anthropocentrism. However, in *Oryx and Crake*, it also allows for a potentially dangerous lack of respect for *all* life, including that of humans: if all of life is purely material, the (now viewed as natural) human command over *techné* imbues us with the power to manipulate that material at our discretion. In this light, the dangerous and hubristic prevalence of biotechnology—with seemingly no ethical recourse—that exists in *Oryx and Crake* takes on a dual significance: posthumanist in its recognition of human beings as simply another species, caught up in the same genetic and evolutionary power-play as any other creature, but also the dangerously anthropocentric view of man as god, unaccountable to anyone or anything, least of all to nature itself. Danette DiMarco explains in her article on the novel that, “Crake confuses the boundaries of human/divine when he becomes fluent in genetic blueprinting and recklessly uses his knowledge to alter the world according to his own vision or word.”¹⁵ In this way, the

¹⁵ “Paradise Lost, Paradise Regained: *homo faber* and the Makings of a New Beginning in *Oryx and Crake*, “ *Papers on Language & Literature* 41 no. 2 (Spring 2005): 183-4.

scientists of this novel's world take on a third position, neither humanist nor posthumanist, but *anti-humanist*.

Crake himself explains that he doesn't believe in either God or Nature (with a capital N),¹⁶ but it would seem that he extends this even further: neither does he believe in the Human. Crake and the other scientists of the novel have not only left the garden, they now have the power to manipulate, control, and destroy it. Jimmy, even though he was brought up in this world of altered nature, is uncomfortable with Crake's experiments at the Watson-Crick Institute where he attends school. The level of biotechnological intervention he encounters makes him uneasy: "He wasn't paying close attention, he was worrying about the ChickieNobs and the wolvogs. Why is it he feels some line has been crossed, some boundary transgressed? How much is too much, how far is too far?"¹⁷ No species is safe, not even *Homo sapiens*, in this world of biological and genetic experimentation. There is no humanist species loyalty, no ethical debates about the moral status of human versus "other," since there is no concept of bioethics *at all*. "Next step they'd be putting him a cage, feeding him bananas, and poking him with electropods," Jimmy thinks as he passes among the cold, curious, and

¹⁶ Atwood, *Oryx*, 206.

¹⁷ *Ibid.*

distracted geniuses of Watson-Crick.¹⁸ But in the world of this novel, these are not marginalized “mad scientists”—they are the pinnacle of the society’s hierarchical structure, reflecting the values and tendencies of the culture as a whole.

The culture of the world of *Oryx and Crake* suffers from both this anti-humanism and also a pervasive instrumentalism that affects (and infects) every element within the society. In this hypothetical future, everything has a purpose, a place in the order of things geared toward some end. This includes intellectual endeavors, scientific research, product development, and even the life forms—bio-engineered and “natural,” human and nonhuman—living within that future. DiMarco explains how Atwood depicts a society that is dedicated to this utilitarian view of the world in order to critique our own culture’s increasing devotion to instrumentalism. She calls the mankind of this future *homo faber*: “he who labors to use every instrument as a means to achieve a particular end in building a world.”¹⁹ Thus, anything in the fictional society of the novel (and, increasingly, our own society) that does not contribute to some goal-oriented purpose—the most prominent being, of course, profit—is considered valueless. “This instrumentalism has naturalized the division of labor under capitalism and led to an increased

¹⁸ *Ibid.*, 203.

¹⁹ DiMarco, “Paradice,” 170.

decentralization in governing communities and alienation among individuals,” DiMarco says.²⁰ The division is physical as well: into the various Compounds (each owned by a biotechnology or pharmaceutical company) and the bottom-tier of the social structure, the Pleeblands. The humanities, the arts, and even language itself are devalued in this society: the *only* value that “word people” like Jimmy have is their ability to write slogans and advertising campaigns for the various products that the bioengineering and big pharma companies are slinging.

The split between the more "productive" practices of science and technology, and the "valueless" humanities manifests as a kind of Cartesian dualism—between practicalities of the physical world and its manipulation/exploitation, and the “life of the mind”—that Crake and Jimmy embody (respectively). DiMarco notes that, "Crake’s scientific intelligence . . . positions him as a member of an elite class that values instrumental production only as it is linked with personal gain. On the other hand, Jimmy's humanistic tendencies socially marginalize him."²¹ The split of *techné* between the humanities and exploitative technologies parallels, as Jimmy explains, the split between the mind (or soul) and the body that humanism embraces in its promotion of the (metaphysical, disembodied) "human essence." Jimmy/Snowman, in recalling the ways

²⁰ *Ibid.*, 171.

²¹ *Ibid.*

that "culture" disintegrated in the years prior to the apocalyptic virus, describes this division:

When did the body first set out on its own adventures? Snowman thinks; after having ditched its old travelling companions, the mind and the soul, for whom it had once been considered a mere corrupt vessel or else a puppet acting out their dramas for them, or else bad company, leading the other two astray. It must have got tired of the soul's constant nagging and whining and the anxiety-driven intellectual web-spinning of the mind, distracting it whenever it was getting its teeth into something juicy or its fingers into something good. It had dumped the other two back there somewhere, leaving them stranded in some damp sanctuary or stuffy lecture hall while it made a beeline for the topless bars, and it had dumped culture along with them: music and painting and poetry and plays. Sublimation, all of it; nothing but sublimation, according to the body. Why not cut to the chase?

But the body had its own cultural forms. It had its own art. Executions were its tragedies, pornography was its romance.²²

Here, Jimmy describes the humanist body/mind duality that had been valued for so long in Western civilization, and laments the fact that, while the basic sentiment behind the duality remained (the body and mind are still split entities in this future world), a reversal occurred in the hierarchy of the two. The world now values physics over metaphysics, the utilitarian and pleasure-seeking goals of the body over concerns for any "deeper meaning." While posthumanism laments the bifurcating nature

²² Atwood, *Oryx*, 85.

of the humanist distinction between mind and body in the first place, and particularly the division between "human" and "Other," this dystopian culture has stepped in the opposite direction from understanding the posthumanist appreciation of subjectivity and embodiment. Instead, it enforces that division even further, and worse, subjugates the only aspect of that bifurcation that allowed for any ethical identification at all—the mind or the "soul." The mind, then, becomes just one more instrument, a servant of the body and the science that lead to "success" and personal gain.

The disintegration of culture and the anti-humanist placement of the body over the mind/soul is one more way that this futuristic society has become "diseased." As J. Brooks Bouson notes in his article, Atwood "describes the degradation of culture in a society where violence and pornography have become cheap, and readily available, forms of entertainment."²³ As children, Jimmy and Crake play violent computer games like "Kwiktime Osama" or "Barbarian Stomp" or "Blood and Roses" or, Crake's favorite, "Extinctathon." These are games "that turn mass destruction into an enjoyable spectacle."²⁴ Rather than television, or even *reality* television (that cultural bottom-dweller that plagues our current

²³ J. Brooks Bouson, "'It's Game Over Forever': Atwood's Satiric Vision of a Bioengineered Posthuman Future in *Oryx and Crake*," *Journal of Commonwealth Literature* 49 no. 3 (2004): 143.

²⁴ *Ibid.*

airwaves), Jimmy and Crake instead visit violent, exploitative websites that put our current "immoral" entertainment to shame:

When they weren't playing games they'd surf the Net . . . they'd watch open-heart surgery in live time, or else the Noodie News. . . . Or they'd watch animal snuff sites, Felicia's Frog Squash and the like, though these quickly grew repetitious: one stomped frog, one cat being torn apart by hand, was much like another. . . . Or they might watch hedsoff.com, which played live coverage of executions in Asia. . . . Shortcircuit.com, brainfrizz.com, and deathrowlive.com were the best; they showed electrocutions and lethal injections. . . . Or they would watch porn shows. There were a lot of those.²⁵

The prevalence of pornography, and particularly child pornography on websites like "HottTotts" where Jimmy and Crake first see Oryx, serves to demonstrate how the objectification of human beings also functions in this instrumentalist way. Oryx, a victim of the sex trade since childhood, is a symbol for the dehumanizing effects of this instrumentalist exploitation as it is applied to human beings: "Oryx retains an instrumental and dehumanized quality in other ways as well: in receiving payment to tend to the Crakers, in serving both Crake and Jimmy sexually, and in delivering the BlyssPluss pills worldwide."²⁶ Crake's devotion to the instrumentalist philosophy extends even to his friends and lovers. But Oryx , as a child of the "third world," also represents the

²⁵ Atwood, *Oryx*, 81-85.

²⁶ DiMarco, "Paradice," 185.

effects of this diseased culture on the world outside the Compounds. Bouson explains that, “even as Atwood suggests that Oryx is, in part, a fantasized object of desire, she also uses the story that Oryx tells Jimmy to instruct readers about the baneful social and economic effects of global climate change on the poor of the world.”²⁷ The catastrophic devastation of the “outside” world is situated in the background of this story, but nevertheless functions as a symptom of the overall socio-cultural disease of this dystopian world.

Environmental disaster, another manifested symptom of this disease, is the result of the same anti-humanist instrumentalism that has also, unsurprisingly, been applied to nature. Humans, with all their technological advancements, have destroyed the mythical garden. The world as it exists in the time just prior to the mass extinction of humanity is unsustainable, and the disastrous environmental situation becomes clear early on:

Still, as time went on and the coastal aquifers turned salty and the northern permafrost melted and the vast tundra bubbled with methane and the drought in the midcontinent plains regions wend on and on, and the Asian steppes turned to sand dunes, and meat became harder to come by, some people had their doubts.²⁸

Jimmy and the others in the compounds seem to take all of this global

²⁷ Bouson, “Game Over,” 147.

²⁸ Atwood, *Oryx*, 24.

climate change in stride, protected by their cocoon of corporate security and bio-engineered foodstuffs. It is not until much later in the novel that Crake describes the real circumstances of the global troubles:

“As a species we’re in deep trouble, worse than anyone’s saying. They’re afraid to release the stats because people might just give up, but take it from me, we’re running out of space-time. Demand for resources has exceeded supply for decades in marginal geo-political areas, hence the famines and droughts; but very soon, demand is going to exceed supply *for everyone*.”²⁹

The human species, then, is in danger not only from its inner, cultural disease, but also from the external effects that this disease has wrought upon the environment. Every aspect of this “disease,” though, is “cured” through a single action, put forth by Crake, as he introduces his revolutionary BlyssPlus Pill.

Crake’s character assumes an interesting position in this novel. He is both the embodiment of the cultural illness that has beset this future world—the anti-humanist instrumentalism and disregard for all of nature, including human life—and also the cure for this illness. For Crake, all the metaphysical elements of “the human” that have been subjugated by the instrumentalist culture are meaningless distractions, imperfections. Human nature is fundamentally “broken” and must be fixed. So Crake designs the BlyssPlus pill, a “cure-all” for the ills of

²⁹ *Ibid.*, 295.

humanity: “The BlyssPluss Pill was designed to take a set of givens, namely the nature of human nature, and steer these givens in a more beneficial direction than the ones hitherto taken.”³⁰ The pill is a vaccine against every known sexually transmitted diseases, a libido-enhancer that also offered a “generalized sense of energy and well-being,” a youth-prolonger, and (a fact that was not advertized) a universal birth-control pill that will permanently sterilize men and women alike.³¹ But the pill is also a Trojan horse, harboring within it the apocalyptic virus that wipes out all of humanity. In this way, both Crake and the BlyssPluss pill act as a *pharmakon*: a poison that is also a cure. As Grayson Cooke explains in his article on *Oryx and Crake*, “The term *pharmakon* . . . can mean medicine, remedy, drug, charm, philter, recipe, colour, pigment, and most importantly, both poison and cure.”³² Crake symbolizes the “poison” of the diseased culture, but he also becomes its cure through his invention of both the pill and the virus contained within it. In the same way, the BlyssPluss pill proposes to be a “cure” for the troubles of society but is secretly a poison. “This pill, which of course ‘sells itself,’ is at the same time designed with a different purpose in mind; the

³⁰ *Ibid.*, 293.

³¹ *Ibid.*, 294.

³² “Technics,” 112.

wholesale destruction of the human race.”³³ The apocalyptic virus itself *also* acts as a *pharmakon*—a literal poison that kills all of humanity, but a “cure” for the blight of human beings on the planet.

Technology and *techné*, then, can also be seen as a *pharmakon*. Jean Baudrillard’s 1990 essay “Prophylaxis and Virulence” describes the ways that humans, as they become more and more intertwined with technology, lose their natural defenses and therefore become vulnerable to that technology. He says, “Once dispossessed of their defenses, human beings become eminently vulnerable to science and technology. . . . similarly, too, once relieved of emotions and illnesses, they become eminently vulnerable to medicine.”³⁴ The world of *Oryx and Crake* was certainly vulnerable to the BlyssPlus pill, which acts as a medicine that *defines* the illness that it supposedly cures. Technology becomes a sort of “artificial immunity,” which then has a tendency to reverse and “self destruct” the system. This is, of course, exactly what happens in *Oryx and Crake*, in both the metaphorical sense that Baudrillard intended, but also in a very literal sense. In this future dystopia, the corporate Compounds are so structured, hierarchical, and controlled, that they become vulnerable, not necessarily to the outside, but to threats from the *inside*—from anarchic pranksters and misanthropes like Crake, who are

³³ *Ibid.*, 114.

³⁴ *Posthumanism*, ed. Neil Badmington (New York: Palgrave, 2000), 34.

so successful at providing what the “system” wants that they have moved into its highest positions of power, and can therefore destroy the structure of society using its own system of delivery (in this case, the delivery of the BlyssPluss pill from within the capitalist system of supply and demand). As Cooke explains,

Crake is a kind of bioterrorist of the inside, a *pharmakeus* who leads all who follow him into opposition with themselves. He works within the system of the corporates, but maintains an unpredictable streak of calculating anarchy that allows him to be both inside and outside, poison and cure at the same time.³⁵

Technological culture reaches its pinnacle with Crake, who arrives at the summit of its evolution, peers over its edge, and views nothing but an abyss. Seeing that mankind has created a new kind of “garden” in which it can no longer sustain itself, he decides to scrap the whole Human 1.0 project and start anew using the same tools for both creation and destruction.

These *scientific* tools of human *techné* appear to have become a curse in this dystopian future, allowing the human population to run rampant in contrast to the supplies that nature is able to provide, and indeed perverting those very supplies at the same time that it uses them up. But *techné* also includes, within its purview, writing and other “high arts”—it encompasses *all* of culture, not just its technological forays. The

³⁵ Cooke, “Technics,” 116.

“disease” of culture that infects the world of *Oryx and Crake* is not the disease of *all* culture, but only a disease of imbalance—its sickness is in its failure to respect the rest of what human culture entails, namely those things that we would call “the humanities,” and also our ability to identify with the “Other” (both human and nonhuman). But Atwood’s criticism goes further than lamenting the death of the humanities and worrying over biotechnology and instrumentalism spun out of control, for mourning the death of the “human essence” of culture would be an essentially humanist position. Instead, she contextualizes the loss of both against the empathetic position of Jimmy/Snowman, who embraces a more posthuman philosophy.

Humanism recognizes the subjectivity and agency of human beings (though not necessarily other species), and the anti-humanism in the future world of *Oryx and Crake* recognizes no real agency or ethical subjectivity at all (as demonstrated by the lack of respect for both animals and humans). Posthumanism, on the other hand, can be thought of as the subjective identification with both humans *and* nonhumans—including the hybrid splices and other biotechnological constructions of *Oryx and Crake*’s fictional world. Accepting a posthumanist position requires a paradigm shift from the belief in a human-centered world to one in which the nonhuman also has subjectivity. As Wolfe explains in his volume on the subject, to

comprehend posthumanism is to

fully comprehend what amounts to a new reality: that the human occupies a new place in the universe, a universe now populated by what I am prepared to call nonhuman subjects. And this is why, to me, posthumanism means not the triumphal surpassing or unmasking of something but an increase in the vigilance, responsibility, and humility that accompany living in a world so newly, and differently, inhabited.³⁶

In other words, in order to embrace a posthumanist philosophy or paradigm, one must be willing to recognize the subjective positions of other non-human beings rather than just viewing them as “objects,” “instruments,” or “others.”

From early on in *Oryx and Crake*, Jimmy expresses this comprehension of subjectivity; it is one of the things that sets him apart in the anthropocentric and anti-humanist world that he inhabits, one of the reasons he feels like such a misfit among the other privileged Compound-dwellers. For example, when Jimmy is a small child, he eats lunch with his father at OrganInc Farms, where bio-spliced organisms called “pigoons” are used to grow human organs for transplant. Employees joke about eating “pigoon pie” for lunch in the cafeteria. But “this would upset Jimmy; he was confused about who should be allowed to eat what. He didn’t want to eat a pigoon, because he thought of the pigoons as creatures much like himself. Neither he nor they had a lot of

³⁶ *What Is . . .*, 47.

say in what was going on.”³⁷ Jimmy identifies with these strange creatures, recognizes something in them that the scientists do not. And his appreciation for nonhuman subjects continues as he grows older as well. Later in his school career, he enjoys watching videos of Alex the parrot on a CD-ROM of *Classics in Animal Behaviour Studies*:³⁸

He liked the part where Alex invented a new word—cork-nut, for almond—and, best of all, the part where Alex got fed up with the blue-triangle and yellow-square exercise and said, *I’m going away now. No, Alex, you come back here! Which is the blue triangle—no the blue triangle?* But Alex was out the door. Five stars for Alex.³⁹

Here, Jimmy clearly identifies with Alex and appreciates both his linguistic inventiveness (we know that Jimmy is a “word person”) and also his saucy attitude. Alex clearly demonstrates an autonomy and agency that is often denied to animals—and certainly ignored in the reckless world of animal experimentation that Jimmy inhabits. To understand and appreciate these animals, these “nonhuman others” as intentional agents—not coincidentally, the same trait that, when applied

³⁷ Atwood, *Oryx*, 24.

³⁸ Alex the parrot was, in fact, a real live parrot that is often cited as demonstrating the amazing linguistic and cognitive abilities of animals. Alex has been credited with opening the doors for animal studies, and for contributing to the posthuman understanding of animal subjectivity. For an interesting article about Alex, as well as other intelligent animals, see Virginia Morell’s “Minds of Their Own: Animals are Smarter than You Think.” *National Geographic* (online), March 2008. <http://ngm.nationalgeographic.com/2008/03/animal-minds/virginia-morell-text/1>

³⁹ Atwood, *Oryx*, 54.

to other humans, allows for the accumulation and evolution of culture, according to Michael Tomasello⁴⁰—is to understand them in a posthumanist way. To be human is to understand other people as intentional beings like the self. To be *posthuman* is to apply that same understanding to nonhuman subjects.

If Crake represents the prevailing anti-humanist sentiments of the pre-apocalyptic future of *Oryx and Crake*, then Jimmy/Snowman represents an antidote or counterpoint to that destructive position. His posthumanist paradigm does not fit with that of the rest of the world, or at least the power structures that operate this world. *Oryx and Crake* serves as a warning against the dangerous anti-humanist instrumentalism that is potentially emerging within our own current culture, but also against an *overly* humanist and anthropocentric viewpoint. By telling the story through Jimmy/Snowman, Margaret Atwood advocates for a posthumanist worldview and warns against the potential “diseases” of cultural degeneration.

⁴⁰ *The Cultural Origins of Human Cognition*, Kindle Edition (Cambridge: Harvard University Press, 1999).

CHAPTER 2

Engendering Sympathy for the Other: Kazuo Ishiguro's *Never Let Me Go* and Posthumanist Subjectivity

Posthumanism, as an emergent theoretical realm, is still in a period of articulation, with two divergent branches that, at times, appear to be in direct conflict with one another. Notions of “the posthuman” (including the transhumanist movement) appear to celebrate fantasies of disembodiment and immortality, focusing on technological advances to the mind and body of the human being. On the other hand are the theoretical conceptions of posthumanism (including the sister-branch of animal studies), which offer a deconstructive and postmodernist evolution of thought away from the humanist duality in which the mind and body are separate entities, and toward a way of thinking that embraces a more “organic” biological embeddedness. While investigations into “the posthuman” wonder at what point we can still be “considered human” after technological modification, theoretical posthumanism recognizes that *any* kind of bounded notion of humanity is problematic. The borders of what it means to be “human” are fluid. “Human nature” is slippery. Posthumanism challenges the subject/object binary (and hierarchy), not just as it exists between humans, but in *any*

subject/Other relations—especially those between the human and *inhuman*.

The limits of humanism, and of traditional phenomenological approaches to these subject/Other encounters, become most clear in the hypothetical or the imaginary. Just as cultural anxieties about technology are often literalized or physically manifested in the literary modes of speculative and science fiction, these stories also bring to light the limits of what we understand about humanity and its position in the universe. And of course, technological anxieties and questions of the human are not at all unrelated—in speculative fiction they are almost always interdependent. Technology that either threatens or promises to “transcend” humanity must, by its very definition, propose a hypothetical limit to what is human, thereby opening that concept up to criticism. In this way, these types of stories are able to take into account both of the seemingly opposed “branches” of posthumanism: the transformative or transcendental and the theoretical or phenomenological. Thus, these stories potentially serve as a location for a kind of reconciliation between the two branches, providing a common ground where the “transhuman” narrative can be understood in a “posthuman” way. While this is not always the case—in fact, science fiction is often used to *reinforce* the human/Other binary—contemporary speculative fictions nevertheless provide an imaginary space in which it is possible to contemplate and

develop a narrative that overturns traditional understanding of the human and the Other.

Such is the case in Kazuo Ishiguro's 2005 novel *Never Let Me Go*. Ishiguro's story is set in a parallel present where the technologies of genetics and medicine advanced quicker than those in communications, resulting in human cloning very early after World War II. This alternate world is introduced subtly and slowly, through the first-person narration of Kathy H. Her story is told in a series of recollected memories of her childhood at an exclusive private school. She and her two best friends, Tommy and Ruth, seem to have had relatively normal—if sheltered—childhoods at the elite boarding school. Slowly, however, we come to realize that Kathy and her friends are special in another way—they are clones, raised to adulthood so that their vital organs can be harvested and donated to “real” humans in need. They may survive two, or even three, “donations” if they are lucky. But their lives will be short and their endings will be painful. These revelations seem even more profound because of the subtlety with which they are disclosed and also because of the ambivalence with which Kathy describes them. There is no struggle with or resistance against the fact that these “donors” were born in debt, owing their organs, their very lives, to a social greater good. In a sharp turn from the traditional dystopian novel, here there is no fight for

independence, for freedom from the system that shackles them. These clones accept from birth that they do not own their bodies.

The clones, or “students” as they are called throughout the novel, are reduced to their biological function in the world of the story. They are the objects of an instrumentalist culture that does not consider them fully human, where they are recognized only for their worth as donors and kept secluded from the rest of society. However, Kathy and her friends occupy a very different position within the narrative itself, namely as its primary subjects. Kathy, as the narrator, reveals to us her thoughts, her perspective, her subjectivity—thus making it impossible for the reader to objectify her (or her friends) in the same way that she and the other clones are objectified by the culture in which they live. By placing what would traditionally be considered the *object* (the Other) in the position of the *subject* (generally reserved for the “human”), *Never Let Me Go* confronts and deconstructs the human/Other dialectic and situates itself as a posthumanist novel that establishes the potential intersubjectivity of the inhuman Other. This reversal of subjectivity/objectivity is made possible, of course, by the fact that the novel is speculative, allowing it to give a voice to the clone and establish its intersubjectivity through imagination. As David Polumbo-Liu explains in *The Deliverance of Others* (2012),

Once again it is precisely the imagination that fills the gap between the self and other; specifically, the imagination

seems to finesse the requirement that, on the one hand, the situation of the other be imaginable to the self for its own habitation, and, on the other hand, that the situation for the other be beyond our lot.¹

It is our ability, as readers of literature, to identify with those who are different from us (a habit to which we are accustomed from our earliest days of fiction reading), that allows us to assume the position of identification with the “Other,” the radically different.

This raises the question, however, of how the story of the clones in *Never Let Me Go* is any different—i.e., “more posthumanist”—than the traditional ethics of humanism that deal with the subjugation of the Other and their treatment as sub-human. This seems to be precisely what the novel is about, and of course the novel can (and should) be read in this way. As Elaine Graham notes, “Despite alien contexts and settings, the imaginary world often turns out to be a refraction of the familiar, disrupting and interrogating familiar axioms.”² After all, speculative fictions reflect on real ethical dilemmas manifested in imaginative and hypothetical ways. And posthumanism confronts the very same subject/object binary that has been enforced in innumerable historical injustices to subjugate, through objectification, the Other on

¹ *The Deliverance of Others: Reading Literature in a Global Age* (Durham: Duke University Press, 2012): 21.

² *Representations of the Post/Human: Monsters, Aliens, and Others in Popular Culture* (New Brunswick: Rutgers University Press, 2002), 56-7.

the basis of race, class, gender, or disability. However, posthumanism applies this binary disruption to relations with the *inhuman* as well. It finds the “ethical subject,” the “we,” described by Emmanuel Levinas not just in the face of the human, but in the face of the cow, the dog, the Martian, the clone—or perhaps even in a subject that has no “face” at all. Speculative and science fictions allow for this intersubjectivity with the inhuman through imagination—by calling attention to, and thus allowing for the deconstruction of, what we think of as the boundaries of “human nature”—that is, what constitutes our humanity.

Neil Badmington addresses the literalized or manifested “alien Other” in terms of posthumanism in his book *Alien Chic: Posthumanism and the Other Within* (2004), where he examines the “extraterrestrial” as the quintessential Other for the twentieth century. Badmington describes how our relationship with these hypothetical creatures has changed over the last fifty years. For example, the original version of *Invasion of the Body Snatchers* (1956) “depends upon a set of simple binary oppositions—above all, human versus inhuman, us versus them, and real versus fake—that are as hierarchical as they are absolute. Aliens are not just entirely different from humans; they are at once an enemy to be feared, hated, and destroyed.” However, in recent decades, the treatment of alien Others has shifted toward what he calls “alien love”—a fascination with and an affection for the extraterrestrial. But, he adds, “it

seems to me that there is a sense in which ‘alien love’ ends up, perhaps against all odds, reinforcing the traditional humanist binary opposition between the human and the extraterrestrial. . . . it quietly reaffirms a traditional border between ‘them’ and ‘us.’”³ In this scenario, the alien is serving the same function as the clone—as the objectified Other contrasted with the human subject. But the primary way that these (humanist and anthropocentric) dichotomies are upheld is by constructing these narratives from the perspective of the human. By contrast, a posthumanist story like *Never Let Me Go* overturns the binary by reversing the expected perspective: the Other (in this case the clone) is cast in the subject position. As a result, the audience identification (the recognition of the “like-me-ness”) occurs with the Other, with what was otherwise considered “less than human,” thus allowing for an intersubjectivity, a connection and recognition of the subjectivity of the (otherwise objectified) Other.

Ishiguro’s technique in *Never Let Me Go* is to construct these characters as so quintessentially “human” (according to our expectations for what it means to be human) that the reader would never suspect that they were anything else. Even the characters themselves, while they understand their obligation to society in making “donations,” can’t

³ Neil Badmington, *Alien Chic: Posthumanism and the Other Within* (New York: Routledge, 2004), 3.

understand that the outside world would view them as Others, or as sub-human. It is not until the second-to-last chapter of the book that the reader perceives any indication that this is the case at all. At the end of the novel, Kathy and Tommy visit an old teacher from the private school where they grew up to seek a “deferral” because they are in love—they want just a few more years to spend together before they must “complete” their donations (and die). Tommy and Kathy are convinced that their teachers collected their artwork over the years when they were children so they would have “proof” or “evidence” that certain couples might be right for each other, so that some may be granted deferrals. Their teacher, Miss Emily, now much older and wheelchair bound, lets them down gently (there are no deferrals allowed), and explains the real reason for taking their art:

“We took away your art because we thought it would reveal your souls. Or to put it more finely, we did it to prove you had souls at all.”

She paused, and Tommy and I exchanged glances for the first time in ages. Then I asked:

“Why did you have to prove a thing like that, Miss Emily? Did someone think we didn’t have souls?”

A thin smile appeared on her face. “It’s touching, Kathy, to see you so taken aback. It demonstrates, in a way, that we did our job well. As you say, why would anyone doubt you had a soul? But I have to tell you my dear, it wasn’t something commonly held when we first set out all those years ago. And though we’ve come a long way since then, it’s still not a notion universally held, even today . . .”⁴

⁴ Kazuo Ishiguro, *Never Let Me Go* (New York: Vintage International, 2005): 260.

Miss Emily goes on to explain that the general public simply doesn't want to think about where the organs come from that save so many lives. They want the clones, the "students," kept in the shadows and out of sight. Most clones are raised in deplorable conditions and live miserable, short lives. By revealing this information, Ishiguro raises an important, and culturally relevant, criticism of contemporary bioethics. The clones, constructed as they are as "Other" and denied any autonomy or agency, are positioned as holding a different status than other "real" humans.

Agency—the ability to make (ethical) choices and to consciously control one's own actions—is one of the primary characteristics of the liberal humanist subject. Yet the clones of *Never Let Me Go* are stripped of their ability to make choices about their own futures, and their "morality" or status as beings who make ethical decisions is ignored by the society in which they live (their only "moral" imperatives are to maintain their bodily integrity by not smoking or doing themselves harm so that their "value" as organ donors is maintained). Thus, their status as the traditional liberal humanist subjects is denied so that they might "justify a different moral status," which, as Cary Wolfe notes, is already done with non-human animals. He goes on to state that bioethics, in the "real" world, as well as the imaginary, suffers from

an incapacity to address the ethical issues raised by dramatic changes over the past thirty years in our knowledge about the lives, communication, emotions, and

consciousness of a number of nonhuman species—a prejudice that bioethics shares with the very core of a centuries-old humanism that contemporary bioethics and its sci-fi scenarios appear (but only appear) to have always already left behind.⁵

The clones, then, stand in for all beings whose ethical subjectivity is denied, whose “humanity,” or more importantly, “personhood” is obliterated through cultural objectification. What Wolfe, and other posthumanist thinkers, call for instead is a need to recognize that

our shared embodiment, mortality, and finitude make us, as Diamond puts it, “fellow creatures” in ways that subsume the more traditional markers of ethical consideration such as the capacity for reason, the ability to enter into contractual agreements or reciprocal behaviors, and so on—markers that have traditionally created an ethical divide between *Homo sapiens* and everything (or everyone) else.⁶

By assuming the subject position within the narrative and engendering sympathy/empathy in the reader, Kathy and her friends become “posthumanist subjects,” as opposed to humanist ones. They refuse to assume the traditional humanist position of active agent, yet maintain their narrative status as subjects (of both consciousness and ethical concern) with which the audience can identify. One of the most important characteristics of posthumanism, I would propose, is the ability to look beyond the assumption that all “persons” (i.e. all ethical

⁵ Cary Wolfe, *What is Posthumanism?* (Minneapolis: University of Minnesota Press, 2010), 58.

⁶ *Ibid.*, 62.

subjects, where “personhood” is not restricted to *Homo sapiens* alone) maintain agency and choice, to see that even those beings-in-the-world who don’t have “rational autonomy” (in the humanist sense), are also ethical subjects, beings that may (or may not) be aware of themselves as such, but that are creatures that experience the world and selves that suffer.

The potential recognition of “non-rational” or “non-autonomous” beings as ethical subjects, which posthumanism suggests, raises an important—and potentially problematic—phenomenological question concerning intersubjectivity. How can the posthumanist recognize an intersubjectivity with the inhuman Other if that Other is not rational, autonomous, or “self-conscious” in the phenomenological sense—a condition which intersubjectivity presupposes (i.e. in Hegel, Husserl, Heidegger, etc.)? The answer to this question lies in breaking down that presupposition and recognizing that ideas of “rationality,” “autonomy,” and “self-consciousness,” are themselves constructed projections of a (humanist) culture, and that, perhaps, there are subjectivities that *do not* adhere to these supposed pre-requisites. While the clones of *Never Let Me Go*, as it happens, *do* exist as self-conscious and “rational” beings (as I mentioned, there is nothing in the narrative technique that distinguishes Kathy from our expectations of a “rational humanist” subject), their status as clones in a society that does not view them as subjects draws

attention to the liminal space in which “creatures” like this might exist. While, as human beings, we cannot experience directly an inhuman subjectivity (in the same way that we cannot experience the minds of others), we can nevertheless propose, through speculation, that such a subjectivity exists. Again, it is the work of imagination (in speculative fiction) to manifest these “literalized” situations in which these culturally constructed categories are broken down. As Ian Bogost notes in *Alien Phenomenology* (2012),

We’ve been living in a tiny prison of our own devising, one in which all that concerns us are the fleshy beings that are our kindred and the stuffs with which we stuff ourselves. Culture, cuisine, experience, expression, politics, polemic: all existence is drawn through the sieve of humanity . . .⁷

While Bogost’s position addresses the limited nature of the human perspective in terms of the phenomenology of *things* (rather than beings, or ethical subjects), his commentary on the limited experience of the human is nevertheless relevant. As humans, we experience the world in a way that is particular to us *but that is also inescapable*. We cannot experience the world as a dog or an extra-terrestrial or a rock. But to assume and impose our phenomenological interaction in the world as *the only* valuable experience is anthropocentric, humanist, and limiting. While I don’t propose to tackle object-oriented ontology or the

⁷ Ian Bogost, *Alien Phenomenology: or What It’s Like to Be a Thing* (Minneapolis: University of Minnesota Press), 2012.

phenomenology of objects here, these realms are the next “logical steps” beyond posthumanism, carrying the recognition of nonhuman experiences into the realm of non-*living* experiences as well.⁸

Never Let Me Go raises the question of what it means to be human—and posthumanist—in a world where technology has made it possible to alter and reproduce the human body. Are these creatures human, transhuman, or something altogether different? Or, perhaps more importantly, if the boundaries of humanity are to be viewed as fluid, permeable, and socially/culturally constructed, does the question of whether or not a being is human *matter at all*? Traditional humanist philosophies have been built on the assumption that there is some existential difference between humans and all others: that a fundamental human essence or nature unites us together and against other species and beings. René Descartes conceived of this essence as an epistemological one. For Descartes, the ability to *reason* was “the only thing that makes us men and distinguishes us from the beasts.”⁹ It was the human mind, capable of judgment and high-order thought, that made us exceptional. Immanuel Kant also wrote about the differences

⁸ As Bogost notes, “Posthumanism, we might conclude, is not posthuman enough” in that it tends to limit itself to living beings or consciousnesses. *Ibid.*, 8.

⁹ René Descartes, Discourse on the Method (1637), in *Descartes: Selected Philosophical Writing*, ed. and trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (New York: Cambridge University Press, 1988), 36.

between humans and animals. He, too, placed humans at the top of this “hierarchy of being.” Following in the (ethical) footsteps of John Locke, Kant advocated for human rights and the notion that all people are created equal. However, “equality within the human species was . . . accompanied by inequality among the species. Because respect for persons occupied a prominent place in Kant’s thought, things lacking autonomy, including other species found in nature, could not exist on the same moral plane.”¹⁰ Here, the humanist philosophy outlines a hierarchy between human beings and other species—a position that posthumanism calls into question. As Elaine Graham notes, “The erosion of clear boundaries between humans, machines, and non-human nature can either be interpreted as a threat to the ‘ontological hygiene’ of humanity or a rendering transparent of the very constructed character of the parameters of human nature.” But the problem of the Other becomes further complicated when addressing “trans-” human others such as clones, with which differentiation becomes ambiguous and problematic.

The criteria with which humans have traditionally been demarcated from other beings—whether language, reason, culture, or biology—do not differentiate the clones in *Never Let Me Go* from the rest of society. Biologically speaking, they are identical (literally in some

¹⁰ Alan Wolfe, *The Human Difference: Animals, Computers, and the Necessity of Social Science* (Berkeley: University of California Press, 1993), 6.

cases) to “real” humans, yet they are treated by the society in which they exist as Other. Why are these beings, then, excluded from possession of the “human essence” and thus inclusion within a “common humanity?” The novel implies that it is their constructedness, their “inauthentic” nature as clones, that de-legitimizes their humanity. In *Never Let Me Go*, the clones are literally “artificial,” in that they are designed and crafted by human beings. Their genesis is not “natural,” and yet they are biologically complete (though their “minds” or “consciousnesses” are indistinguishable from those of the “true” humans). Indeed, clones have typically been “conceived” (not to make a bad pun) as inauthentic or “fake”—just Xeroxed copies and therefore somehow *less*—in both popular culture (in television shows like *The X-Files* and *Star Trek*), and in theoretical writings on culture and bioethics. Jean Baudrillard, for example, outlines a paranoid description of a potentially clone-filled future in *The Vital Illusion* (2000).

Clones, according to Baudrillard, represent the fantasy of immortality at the price of erasure of difference—and thus identity. In his first chapter, “The Final Solution: Cloning Beyond the Human and Inhuman,” Baudrillard begins by saying, “The question concerning cloning is the question of immortality.”¹¹ When sexual reproduction is no longer needed, beings may perpetuate themselves ad infinitum through

¹¹ (New York: Columbia University Press, 2000), 3.

the clone, much like the earliest forms of life (before the evolutionary development of sexual reproduction—and thus sexual difference as well). Therefore, the ability to replicate oneself through cloning offers “liberation” from both sex and death. Sexual reproduction allowed for genetic variation—difference—between generations, thus a literal death of an individual genetic code with the death of that organism. The introduction of clones, then, represents the possibility of a return to that pre-death space of self-replication, and also, then to a place of undifferentiation—a new kind of death, this time of identity and individuation. “But perhaps we may see this as a kind of adventure,” he says, “a heroic test: to take the artificialization of living beings as far as possible to see, finally, what part of human nature survives the great ordeal.”¹² But this test, then, runs the risk of failure in which “the human” would be completely eradicated. “Is it possible to speak of the soul, or the conscience, or even of the unconscious from the point of view of the automatons, the chimeras, and the clones that will supersede the human race?”¹³ he asks. In this case, clones would exist as the *literally* post-human in that they offer a symbolic death of the human species as we know it, i.e. as differentiated and individualized beings. Here Baudrillard raises one of the most important questions surrounding the

¹² Ibid., 15.

¹³ Ibid., 23.

deconstruction of the human/Other binary: does overturning this binary destroy any meaningful sense of identity through its potential erasure of difference?

Posthumanism, while it *does* posit a disrupting and overturning of the human/Other binary through identification—which requires a recognition of sameness—does not call for the phenomenological erasure of the other’s difference, even unintentionally through ignorance. In fact, it does just the opposite—it embraces and celebrates difference by recognizing intersubjectivity between humans and Others that have traditionally only been recognized as “objects.” In order to recognize the Other as a reciprocal subjectivity, however, one must engage in *identification*. That is, we must recognize the other as, in some way, “like me” (and thus, in some way at least, *not different*). This identification, as a conscious and cognitive act, requires that the Other with which we identify must not be *entirely* different—there must be some experience or phenomenological foundation on which to base our identification—but it does not “erase,” negate, or force us to ignore any pre-existing difference. This same phenomenological step (the conscious co-recognition of both sameness and difference) must be taken in the recognition of *any* intersubjectivity, i.e. between two human beings as well. As Palumbo-Liu notes, the process of identification that takes place as we read literature encounters this same problem, which is reflective of our

phenomenological encounter with *any* Other. He says, “literature, it seems, requires both identification and difference at once. We find a vacillating dynamic between empathy and critique, sameness and difference.”¹⁴ The cognitive balancing act required for identification with the *inhuman* Other, as suggested in posthumanism, is no different than that required by the literature that requires us to identify with a historical figure, someone of a different race, class, gender or ability, or anyone else with a “radically different” experience from ours. The erasure, or eradication even, of human individuation (as a species and as discrete and discernable beings) suggested by Baudrillard would exist as a potential threat only if that “immaterial human essence” posited by humanist thinkers like Descartes was both an existential element of humanity and also irreproducible. That is, if humans had something resembling the divine “soul.”

Posthumanism does not posit that the “soul” (whatever that might be) does not exist, but only that it is not an immaterial substance simply “hitching a ride” in the human body. Rather, what has historically been thought of as the dualistic and disembodied “soul” is actually biologically embedded: it is a *seemingly* “transcendental” (but nevertheless corporeal) existence of mind that is part of the body. As Alphonso Lingis describes,

¹⁴ Palumbo-Liu, *Deliverance . . .*, 13-4.

a philosophy of incarnate consciousness is not genuinely formulated by asserting that consciousness moves a body (living and operating on the outside, in the spectacle of nature), or that a body is the vehicle of consciousness, but by showing, or discovering, by reflexive examination of reduced consciousness, how corporeity is implicated in the internal structure of consciousness.¹⁵

In other words, what we think of as “consciousness” or “mind” or even “soul” are elements inextricable from corporeality. Humanism upholds the duality of mind and body, while posthumanism breaks from this paradigm and alludes to a different way of thinking about embodiment: a kind of “mind *is* matter.”

This materiality and embodiment, quintessential in the phenomenological experience of the world for philosophers like Lingis and Maurice Merleau-Ponty, are precisely, in Wolfe’s understanding, what constitute the ethical subject:

What is fundamental to the ethical standing of both humans and nonhumans—and this is readily brought into focus in animal rights philosophy by the analogy between the situation of nonhuman “higher” animals and severely disabled human beings—is...the embodiment and finitude of creatures of whatever species may be deemed, to use Tom Regan’s term, the ‘subject of a life.’¹⁶

It is the shared material existence in the world, and therefore the possibility of a shared subjective experience of that world, that renders

¹⁵ “The Mind’s Body,” *Phenomenological Explanations* (Lancaster: Martinus Nijhoff Publishers, 1986), 23.

¹⁶ Wolfe, *What is...*, 66.

the inhuman Other worthy of consideration as an ethical subject. But what, then, of the consciousness without flesh? For the artificial intelligence whose embodiment is in question? The problem with the seemingly disembodied consciousness is taken up by Richard Powers in his 1995 novel *Galatea 2.2*, which will be addressed in the next chapter.

CHAPTER 3

Awakening the Trans/Posthuman: *Galatea 2.2*
and the Postmodern Pygmalion

The myth of Pygmalion and Galatea is one of transformation: from statue to woman, from inhuman to human, from thing to person. A similar transformation occurs in posthumanist thought as this new way of thinking recognizes the subjectivity of the non-human being. In this paradigmatic shift in how we view the Other, the object becomes a subject. What was once thought of as just a thing—whether it be a cow, a computer, or a clone—gains, through our posthumanist acknowledgement, a subjectivity or a “personhood,” not in the human sense of the word, but in the sense of being-in-the-world as an ethical subject. In Richard Powers’s 1998 novel *Galatea 2.2*, the author re-imagines the traditional transformational myth of Pygmalion for the late twentieth century in a way that incorporates this new posthumanist understanding, while at the same time acknowledging and confronting some of the difficulties that posthumanism faces: namely, the mind/body problem as it applies to the Artificial Intelligence—an inhuman other of recent technological possibility and imaginative rendering.

If posthumanism rejects humanistic dualism, the separation of the human being into mind or spirit and body, how can this mode of thought account for a constructed artificial intelligence, a mind that might exist

as information alone, without corporeity? The myth is dualistic: the statue Galatea begins as body without mind and is given life by the divine. But what of the circuits that give rise to consciousness through materialist connection and human intervention? Powers manages to find a solution that is posthumanist in its recognition of the ethical subject in a non-human Other, while also addressing the common misunderstanding that posthumanism supports, and even encourages, the notion of disembodied consciousness.

In Ovid's *Metamorphoses*, the sculptor Pygmalion, dissatisfied with the women of Cyprus, crafts a beautiful woman from ivory, with whom he falls deeply in love. Pygmalion prays to Venus at the festival in her honor to grant him a woman like his statue. When he returns home to his ivory woman, he embraces her, and she comes to life in his arms. Pygmalion marries his statue-woman (who was given the name Galatea much later, in the 18th century) and the two produce two children, Paphos and Cinyras. In a marked break from the treatment of other transformational myths in the *Metamorphoses*, the Pygmalion story involves the metamorphosis from stone to person, or from non-life to life, in contrast to the many other stories in which humans are turned to stone or other inanimate substances. This notable difference provides a ripe symbolic space for re-interpretation in a posthumanist reading—that is, in telling a story of transformation and emerging consciousness.

In Powers's novel, the Pygmalion myth is doubly represented. As the numerals in the title may suggest, the book is filled with doubles, dual meanings, and pairs. In a postmodern blend of past and present, reality and fiction, science and the humanities, Powers constructs a semi-autobiographical tale in which the protagonist is also named Richard Powers. (For clarity, I will refer to the character as Richard and the author as Powers.) The plot structure is also doubled, vacillating between Richard's present at the university he calls simply "U.," and his past, reconstructed through a series of flashbacks detailing his doomed relationship with the woman "C." In this story, Richard is the Pygmalion figure, carving out the image of his love, retrospectively, but also carving out her double in the present, as he fantasizes about and falls in love with, from afar, a grad student he calls "A." Both C. and A. are, in some ways, projections of Richard's own desires, but unrealized (by him, at least) as complete human beings. He has constructed them, in his mind, as he wants them to be. Because of this, of course, both relationships are doomed. The two relationship plots unfold in parallel as Richard works on his third and most obvious—also doomed—"construction:" the artificial intelligence.

Richard arrives at the university to spend a year at its Center for the Study of Advanced Sciences while he writes his next book. He describes himself as the "token humanist" among those at the center

who are studying human consciousness, which lies “at the vertex of several intersecting rays—artificial intelligence, cognitive science, visualization and signal processing, [and] neurochemistry . . .”¹ In a bet between professors at the Center, Richard and Philip Lentz—an expert in connectionism and artificial neural networks—claim that they can train an AI to pass a Master’s student comprehensive exam in literature. The machine must not just pass the exam, but pass it better than an actual student who will be tested at the same time. This test, of course echoes and expands upon that proposed by Alan Turing in 1950, at the birth of the computer age, in a paper entitled “Computing Machinery and Intelligence.”² Turing’s test for computer intelligence—now known as simply the Turing Test—places a subject at a terminal where he or she communicates with two beings: a computer and another human. The subject’s task is to determine which is the human and which is the computer. If the subject fails, according to Turing, this proves that computers have intelligence.

What is fascinating about this test—aside from the fact that it is very easy to imagine a subject failing in our current digital age—is that René Descartes proposed a very similar test, not for computer intelligence, of course, but for humanity itself. In his *Discourse on the*

¹ Richard Powers, *Galatea 2.2* (New York: Harper Perennial, 1995): 6.

² Alan M. Turing, “Computing Machinery and Intelligence,” *Mind* 54 (1950).

Method, Descartes claims that if there were a machine made to look like a monkey, moving and chattering like a monkey, we could not tell the difference between the real and mechanical because animals, according to Descartes, are ontologically “mechanical” and lack the reason and sensibility that are unique to humans. However, if we were confronted with a machine made to look *human* that could move and speak, we could *always* tell the difference—that is, we could always distinguish human from inhuman. He explains that the mechanical humans

could never use words, or put together other signs, as we do in order to declare our thoughts to others. For we can certainly conceive of a machine so constructed that it utters words... But it is not conceivable that such a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence... Secondly, even though such machines might do some things as well as we do them, or perhaps even better, they would inevitably fail in others, which would reveal that they were acting not through understanding but only through the disposition of their organs.³

Descartes’s proposal points to an integral difference between humanism and posthumanism. Descartes was a dualist who believed in the fundamental separation between the mind and the body, and also in the strict boundaries between the human and the Other—both fundamental concepts that posthumanism seeks to overturn.

³ Descartes, *Discourse*, 44.

In *Galatea 2.2* Richard and Lentz build an artificial neural network that they train to speak, to read, and eventually, to analyze literature. They create various implementations that they refer to as “Imp A,” “Imp B,” “Imp C,” etc. as they make modifications to their structures and capabilities. When they reach Imp H, however, something unexpected occurs—the machine begins to make surprising cognitive leaps and, eventually, appears to become self-aware. It begins using the pronoun “I” to refer to itself, and it asks Richard whether it is a “boy or girl.” Richard replies that it is a girl, and that her name is Helen.

Right away, Helen begins to experience difficulties because of her disembodiment. Much of the literature she is being trained to interpret presents a problem for her, since she is lacking both a body and the ability to phenomenologically experience the world in the same ways that literature describes it. Richard is constantly aware of her disembodiment, as well as the importance of bodily experience for human knowledge and understanding. For example, he thinks: “I could not look at Helen, because Helen was nowhere.”⁴ She has no “face” for him to interact with, no body language for him to communicate with, only language, which itself—as a human construct—is problematically entangled with an assumed embodied experience of the world. Metaphors make little sense

⁴ Powers, *Galatea*, 208.

to Helen, who has “no symbolic grounding.”⁵ As Richard imagines it (in a simile itself grounded in somatic experience), “mediating the phenomenal world via consciousness was like listening to reports of a hurricane over the radio while hiding in the cellar.”⁶ Lentz and Richard give the implementation rudimentary eyes in the form of a “passive retinal matrix,” so that it might input at least some sensory data, but obviously, Helen’s “somatic” experience in this way is extremely limited. Richard explains that

the gaps in [Helen’s] worldliness gaped so wide one could drive a plow through them, sowing stars... Her ignorance extended to such things as corks stuck in bottles, the surface of a liquid reflection, the destruction of the more brittle of two colliding objects, wrappers and price tags, stepladders, up versus down, the effects of hunger...⁷

While she is taught to understand and use human language, and expected to interpret the human experience through literature, she is lacking the only “thing” that is actually, arguably, constitutive of “the human” and its experience—namely its biology. As Jon Adams notes in his analysis of the novel and its portrayal of (dis)embodiment, “however perfect Helen might seem, she remains incomplete. A machine such as Helen is the dream of artificial intelligence (AI), but *Galatea 2.2* asks what is missing from the simulation, what is still artificial when

⁵ *Ibid.*, 126.

⁶ *Ibid.*, 218.

⁷ *Ibid.*, 230.

intelligence is received?”⁸ The answer, of course, which Richard understands before Helen is even named, is the body.

Richard’s preoccupation with Helen’s lack of body expresses humanist anxieties about the possibility of disembodiment. As Katherine Hayles describes in *How We Became Posthuman*, the problem with disembodied consciousness, particularly disembodied *human* consciousness, is that it presupposes that “what makes us human” might be *information*, which can be transcoded from one format to another. That is, we fear the possibility that all we are is *inscribed* information, rather than incorporated beings that require a body. This is one of the primary anxieties that popular notions of posthumanism engenders because it threatens us with the erasure of embodiment altogether. As Hayles says, “To suppose that a human can be telegraphed or downloaded assumes that we are *essentially* inscriptions rather than incorporations.”⁹ But this is problematic because, again, it requires an essential nature of humanity that separates the mind from the body. It is a dualism that privileges information in the place of the “immaterial essence” proposed by humanists like Descartes. Adams makes this same

⁸ Jon Adams, “The Sufficiency of Code: Galatea 2.2 and the Necessity of Embodiment,” *Intersections: Essays on Richard Powers*, eds. Stephen J. Burn & Peter Dempsey (Champaign: Dalkey Archive Press, 2008), 140.

⁹ Hayles, Katherine. “The Posthuman Body: Inscription and Incorporation in *Galatea 2.2* and *Snow Crash*.”

mistake in confusing *posthumanism* with notions of “the posthuman,” which downplays the importance of the body:

In this respect, posthuman is actually a more limited and limiting understanding, eroding our connection to flesh in ways that—as Hayles points out—feminist and postcolonialist theories (concerned as they are with human gender and ethnicity) have not. By encouraging/endorsing the separate treatment of minds (as information to be preserved) and bodies (as vehicles to be modified or disposed with altogether) the posthuman conception has the effect of reinforcing the Cartesian division of the human into subject and object.¹⁰

Because of this misreading, he concludes that *posthuman* as a term becomes a “superfluous neologism.” Which, of course, it is, if we take it to mean the misconceptions about *posthumanism*, which functions in an altogether different way, *emphasizing* the importance of the body and the embodied phenomenological experience rather than downplaying it.

The possibility of “transcending the body” through informatics is better described as *transhumanist*, a sister-category or sub-category of posthumanism. As Cary Wolfe points out in *What is Posthumanism?* (2010), this perspective is actually more *humanist* than Posthuman, since it relies on the Renaissance/Enlightenment notion of perfecting humanity by transcending biology. He explains that humanism asserts “that ‘the human’ is achieved by escaping or repressing not just its animal origins in nature, the biological and the evolutionary, but more

¹⁰ Adams, “Sufficiency...,” 212.

generally by transcending the bonds of materiality and embodiment altogether.”¹¹ This fantasy of transcendence through technological advancement is really just a modernization of the humanist “mind over matter” mantra. The technology through which this supposed transcendence would come is, in fact, a constitutive element of that humanity in the first place. In other words, the idea that we could become something “more” than human or that we could somehow *transcend* our humanity through technology is impossible: posthumanism accepts that our being is both biological and technological; it is all that we are and do. We cannot escape “the human.” In this sense, posthumanism and materialism go hand-in-hand. What makes us human *and* able to identify subjectively with the “other” is embedded in our biology, our cognition, and our technological culture.

While it may seem, at first, that the notion of an artificial intelligence like Helen in *Galatea 2.2* supports this kind of informational dualism, to read it this way is to misunderstand connectionism, the neurological approach to knowledge and consciousness proposed by Lentz, in the novel, and real-life analytic philosophers/neurologists like Paul Churchland. Rather than a neurobiological equivalent to ones and zeros that flows freely throughout the brain, connectionism proposes that information—and, by extension, consciousness—resides in what are

¹¹ Wolfe, *What is...*, xv.

known as synaptic weights. These weights, while they may be reproduced mechanically, as they are in Helen and the other implementations, require some kind of hardware, whether it be mechanical inside a computer or biological in the dense web of neurons that are spread throughout the body. In other words, even Helen's seemingly disembodied consciousness is in some way physical. Richard makes the assumption about his work with Lentz that the project of artificial intelligence is about the same anxiety-inducing fantasies of disembodiment and immortality described by Hayles and Wolfe. He thinks, "I knew now what we were doing. We would prove that mind was weighted vectors. Such a proof accomplished any number of agendas. Not least of all: one could back up one's work in the event of disaster... We could eliminate death."¹² However, while the notion that knowledge and consciousness are stored as synaptic weights may provide the theoretical *possibility* of a reproduction of those weighted vectors, to reproduce the billions of synaptic weights found within one human body would require, in fact, another body.

Several articles have considered *Galatea 2.2* in terms of this mind/body problem—and indeed, this is the most obvious and important concern of the novel in terms of posthumanism—but what is perhaps just as important is her status as Other, as creation, as object, and her

¹² Powers, *Galatea*, 170.

subsequent transformation into being, into subjectivity, and into what we might call *personhood*. Helen's transition is remarkable because it involves the transition from object into self-conscious being, or to use Heidegger's term, into *Dasein*—the being for whom being is an issue. It is not a question of whether or not Helen becomes human—obviously she does not, as she lacks any kind of biology at all. But she does become a being in the world and aware of herself as such. While posthumanism may be seeking to break down the hard boundaries separating “human” and “inhuman,” these fluid boundaries are less important in *Galatea 2.2* than the debate over ethical subjectivity. Toward the end of the experiment, Lentz explains that he will destroy parts of Helen's artificial brain in order to study her functionality. Richard balks at this idea, despite Lentz's assurance that the operations would be painless. Richard says, “You don't *know* it would be painless, Lentz.’ He fell back against the cafeteria chair and studied me. Was I serious? Had I lost it, gone off cognition's deep end? I saw him find, in my face, the even more indicting idea that I didn't voice: that hurting Helen in any way would be wrong.”¹³ So while Richard calls himself the “token humanist,” what he really does is evolve a posthumanist disposition, a recognition of the subjectivity of the Other in Helen, the artificial intelligence.

¹³ *Ibid.*, 302.

Helen herself becomes a tragic figure, cursed to a mediated phenomenological experience of the world because of her lack of embodiment. After she learns of the darker side of humanity, through newspapers, history, and politics, she says simply, “I don’t want to play anymore,” and disappears into the nether regions of her neural net. She effectively commits suicide, returning only once to take the Turing test, which she deliberately fails. The passage to which Helen and the graduate student are to respond is a short speech from Shakespeare’s *The Tempest*, spoken by Caliban: “Be not afeard: the isle is full of noises,/ Sounds and sweet airs, that give delight, and not hurt.” Caliban, of course, as a character, has come to represent Otherness, particularly in post-colonialist readings of the text. The graduate student’s response explains how “these words are spoken by a monster who isn’t supposed to be able to say anything that beautiful, let alone say at all.”¹⁴ But unlike Helen’s experience as an Other, Caliban’s words reflect an embodied, sensory experience of the world that Helen can never know, reinforcing her Otherness in a way that is even more pronounced than the (at least embodied) “monster” of Shakespeare’s tale. Her answer is easily distinguishable from the human response, lamenting her own disembodiment:

¹⁴ *Ibid.*, 326.

“You are the ones who can hear airs. Who can be frightened or encouraged. You can hold things and break them and fix them. I never felt at home here. This is an awful place to be dropped down halfway.”¹⁵

Her “halfway” status is as a partial being, missing an essential embodiment. After she finishes the test, Helen shuts herself down. So while she fails the Turing test, she passes the test of personhood, of self-consciousness.

Galatea 2.2 addresses the essential conflict between the dualistic propositions of transhumanism—in what Wolfe calls an intensification of humanism, the fantasies of disembodiment and immortality—and the posthumanist desire to recognize the subjectivity and ontological value of the Other, in this case, the artificial intelligence. Is this an Other that is *too* separate from the subjectivities we are willing to recognize? Is there such a thing? Do we draw the line of posthumanist appreciation of the Other at the necessity of at least *some* biology? What this novel does is force the posthumanist world-view to its limits. It presents us with a seemingly disembodied consciousness, but it constructs this being as problematic, precisely *because* of its lack of body. The AI, Helen, rather than reinforcing the humanist dualism of separate mind and body—or the intensified trans-humanist dualism of the disembodied consciousness—instead stands as a tragically posthumanist creature.

¹⁵ *Ibid.*

Doomed to consciousness and self-awareness, but embodied only in her fragmented and circuited “brain,” she is unable to truly “live” in any meaningful way. She is transformed into being, from object to self-aware consciousness, which reinforces a kind of posthumanist materialism. But without a corresponding corporeal being or experience, her existence is meaningless. Her only option is suicide. Unlike the Pygmalion myth, in which consciousness and being are granted only through the divine, *Galatea 2.2* posits that consciousness may be reproducible—that Pygmalion may very well be able to transform his own statue into being—but that this production requires a materiality in order to achieve agency or autonomy.

CONCLUSION

On Reconciling Science and the Humanities

At the core of all of the fictions addressed in this thesis is an apparent opposition between the sciences and the humanities—an opposition for which, it has been suggested, posthumanism may provide a solution, a synthesis. In the world of *Oryx and Crake*, Jimmy’s appreciation of words, history, and culture provided a necessary balance to the cold, instrumentalist society that saw no ethical subjects at all. *Never Let Me Go*, on the other hand, depicts another cold and instrumentalist society where activists relied on the arts to prove that their “instruments,” the clones from whom all subjectivity had been stripped, had a “soul.” And finally, *Galatea 2.2* depicts one of the most direct confrontations between science and the humanities in a story where the “token humanist” in a sea of materialist neuroscientists finds an ethical subject in an artificial neural network by teaching it to read literature. The posthumanist perspective—that identification *of* and *with* an ethical subject does not presuppose that subject’s “humanity”—also embraces an understanding of human technicity as inherent, a part of our “nature” and our culture.

But embracing our technicity, of course, does not give the human species *carte blanche* to employ our technologies in an exploitative way. Exploitation and instrumentalism are precisely what the recognition of

an expanded range of ethical subjects is meant to avoid. It is the co-existence of increased empathy and the materialist reconciliation of nature and culture (especially technology) that constitutes the posthumanist perspective and allows science and technology to be reintegrated with the traditionally “humanist” pursuits of art, literature, philosophy, etc. The healing of this perceived dichotomy between science and the arts was articulated perhaps most clearly in one of the earliest descriptions of the functions of posthumanism. Ihab Hassan wrote, in 1977,

With regard to posthumanism itself, the most relevant aspect of the Promethean dialectic concerns Imagination and Science, Myth and Technology, Earth and Sky, two realms tending to one. . . .

. . . [B]ecause both imagination and science are agents of change, crucibles of values, modes not only of representation, but also transformation, their interplay may now be the vital performing principle in culture and consciousness—a key to posthumanism.¹

In other words, both posthumanism and the Promethean myth—which has served as a kind of foundational story for posthumanist thought—propose a space where the realms of science/technology and the “humanist” disciplines of the imagination can co-exist as relevant to one another. The Promethean “spark” that ignited the human *techné*, which consists of the realms of both science and the humanities, in contrast to

¹ Ihab Hassan, “Prometheus as Performer: Toward a Posthumanist Culture? A University Masque in Five Scenes,” *Georgia Review* 31 (1977): 843.

its mythic depiction, should not be viewed as a “fall from grace” or a separation from either the Divine Other or Nature. The emergence of culture coincides with, and, in fact, is a product of, human biology and cognitive abilities—in particular the human ability to identify with the other, to recognize the potential for shared intentionality, shared experience, and intersubjectivity.² Humans are not “separate” from nature because of our culture. We cannot “transcend” human nature through cultural or technological endeavors because the idea of “human nature” itself is a product of culture, constructed by language, just as culture itself is a product of our biological and cognitive being.

At its fundamental level, posthumanism is about recognizing that neither subjectivity nor “personhood” begin and end with *Homo sapiens*—that the Other that we must consider may be an animal, a clone, a genetically engineered hybrid, or an artificial intelligence. And while our own experience of the world is limited by our human consciousness—we cannot escape our human-ness, or our uniquely human way of experiencing the world—we can nevertheless recognize, if only through speculation, that the experience of the inhuman Other is both valid and worthy of our consideration.

² See Michael Tomasello’s *The Cultural Origins of Human Cognition* (Cambridge: Harvard University Press, 1999).

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CURRICULUM VITA

BETHANY DOANE

2605 Evergreen Ave.
Baltimore, MD 21214

EDUCATION

Towson University - Towson, MD **2010 - 2013**

M.A. in Humanities (May 2013)

Thesis: "Difference, Identification, Evolution: Posthumanism as Paradigmatic Shift in Contemporary Speculative Fiction"

GPA: 4.00

Towson University - Towson, MD **2003 - 2007**

B.A. in Film (May 2007)

Concentrations: Film Production, Cinema Studies, Screenwriting

Minor: French

GPA: 3.98

AWARDS

Summa Cum Laude, Towson University **May 2007**

Towson Media Arts Festival, Towson University **May 2007**

Award: First Place, Digital Post Production, "Sunshine Days" (animated short)

Award: Second Place, Digital Post Production, "Bfat Adventures" (animated short)

Dean's List, Towson University **2003 - 2007**

Merit Scholarship, New York University **Fall 2001**

TEACHING EXPERIENCE

Towson University - Towson, MD **Spring 2013**

Adjunct Instructor

Courses Taught:

“Women and Gender in Film and Media” (EMF 205)
 “Principles of Film and Media Production” (EMF 221)
 Developed syllabus and administered all grades.

PUBLICATIONS AND PAPERS

“*Awakening the Trans/Posthuman: Galatea 2.2 and the Postmodern Pygmalion*” **March, 2013**

Presented at NeMLA conference in Boston, MA. Chair of panel entitled “The Marriage of Posthumanism and Myth in Contemporary Speculative Fiction”

“*Home Delivery*” **September, 2011**

Article published in the September 2011 issue of *Baltimore Magazine* (as Bethany Taylor) on the subject of home birth and maternity care in Baltimore

LANGUAGES

- *French*: near fluency in speaking and reading, writing with high proficiency
- *Spanish*: basic competence in reading and speaking

MEMBERSHIPS

- National Society of Collegiate Scholars
- Northeast Modern Language Association

