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“You Must Be an Android”: The Persistence of Humanist Hierarchies in Posthumanist
Science Fiction

A Thesis Presented

by

ELIZABETH BRADY

MAY 2021

Approved as to style and content by:

Signature: _____

Dr. Kimberly Davis, Chair

Date

Signature: _____

Dr. Matt Bell, Member

Date

Signature: _____

Prof. Bruce Machart, Member

Date

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A Thesis Presented

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ELIZABETH BRADY

Submitted to the College of Graduate Studies

Bridgewater State University

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ABSTRACT

This thesis examines science fiction dystopias in which the vestiges of humanist philosophy taint the construction of posthuman subjects. With a grounding in the tenets of both humanist and posthumanist philosophy, I analyze eight works of science fiction that depict artificial intelligence, cyborgs, and body swapping to determine the common critiques made. The source of the troubling aspects of these imagined futures doesn't derive strictly from the presence of advanced, posthumanist technologies. Instead, the authors shine a light on the monstrosity that results when technological posthumanism comes to fruition while their imagined future societies remain grounded in humanist hierarchies, including that of class, gender, and race.

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Introduction: The Posthuman Subject in Science Fiction

The imagery of the “posthuman” evokes a wide range of connotations. Does it look like a person with silicone skin and aluminum bones? Is it the creature that results from thousands of years of human evolution, adapted to survive an unfamiliar environment? Is it a version of a consciousness experiencing life within a computer simulation? Posthumanism, in short, is all of the above and more. It is a philosophy, theoretical approach, and ideology that decenters the human subject. In fiction, it typically manifests itself through the depiction of posthuman beings that exceed the known bounds of the human body, like cyborgs or genetic hybrids. But posthumanism is also a critical theory that destabilizes humanism, which firmly centers the subjectivity of man above all else. Donna Haraway’s “A Cyborg Manifesto” (1985) was a pioneering work in the field of posthumanism. Haraway envisions a future in which the fusion of animal and machine renders obsolete the oppositions between natural and unnatural, individual and the collective. Haraway writes, “A cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints” (229). Technology, to Haraway, presents a unique opportunity to create a greater society in which binaries and the hierarchies they engender no longer exist.

Despite being a relatively new term, the creation of posthuman beings and the possibilities of a posthuman future have been an interest of humanity since ancient times. Hephaestus, the Greek god of blacksmithing, was said to have created Talos, a giant bronze man tasked with protecting Crete from invaders (Shashkevich). Hephaestus also built Pandora, who Hesiod’s *Theogony* describes as a woman sent to Earth to punish

humans for discovering fire. In this version of the story, Adrienne Mayor likens Pandora to what a modern science fiction reader might call an “evil fembot” (Mayor, “Introduction” 1). Hindu and Buddhist texts from the end of the first millennium describe robot warriors guarding Buddha’s relics (Mayor, “Robots”). And the clay-based Golem of 16th-century Jewish folklore is yet another example of an artificial human.

The posthuman beings of myth and folklore were generally created for the purpose of labor, which continued to be the case as modern science fiction grew in popularity. In fact, the term “robot,” which first appeared in Karel Čapek’s 1920 play *R.U.R. (Rossum’s Universal Robots)*, derives from the Old Church Slavonic word *rabota*, which means servitude or forced labor (Markel). In the play, the robots are mass produced by a corporation to perform work that is undesirable to humans. The robots ultimately revolt, killing all but one human before realizing that they are unable to manufacture more robots. Instead of falling into destruction, however, two robots fall in love with one another, ending the play as the modern Adam and Eve. This foundational robot-based text is an illustration of how labor struggles and civil rights are central to the history of the robot in fiction.

The posthuman subject regularly features as an antagonist or monstrosity in science fiction, typically to symbolize human short-sightedness in the creation of new technology. Some of these figures are driven to homicidal fury because of their enslavement, much like Čapek’s pioneering framework. This can be seen in the replicants in the film *Blade Runner*, who are enslaved androids that murder their masters and plot to manipulate the man that manufactured them. The bodiless artificial intelligence HAL 9000 from Stanley Kubrick’s 1968 film *2001: A Space Odyssey* is an example of the

fallibility of programming; HAL is primarily programmed to see the mission through (and keep it concealed from the crew) no matter what, but he is simultaneously forbidden from withholding essential information from the crew. It seems that every expectation and possibility was considered when programming this ultra-intelligent AI except for the moral complexity of what HAL is expected to do. On the other hand, the Skynet supercomputer of *The Terminator* initiates nuclear war and creates robots to kill the remaining humans on earth, a far larger project than HAL's localized murders. The similarly sadistic supercomputer AM in Harlan Ellison's 1967 short story "I Have No Mouth, and I Must Scream" loathes mankind enough to not simply annihilate all humans, but to keep 5 in captivity to torture indefinitely. The hubris of the Icarus narrative, in which human ambition leads to their own demise, has consistently served as an intriguing plot element beyond science fiction. But in many cases, the reasoning for the AI's hatred for the human being goes without much explanation or consideration. It's implied that this animosity derives from the embodiment or logic of the AI being incompatible with that of humans. The technology is the core of the conflict.

In contrast, some works of science fiction that feature a posthuman subject offer a positive, or at least whimsical, depiction of artificial humans or cyborgs as a celebration of an increasingly technological future. For example, in the television show *The Six Million Dollar Man* (1973-1978), Steve Austin, a critically injured NASA astronaut, is rebuilt with bionic limbs and an eye implant, making him the optimal secret agent. The iconic opening sequence depicts Steve being fitted with bionic parts, with a narrating voice saying that Steve will be "Better than he was before. Better, stronger, faster" (Irving 1:02-1:11). Steve's transformation into a cyborg is seen as a lifesaving tool that

not only keeps him alive, but improves his physical abilities going forward. In another case, *Star Trek: The Next Generation* features a crew member named Data, who is a sentient android. His consciousness and autonomy are brought into question in one episode, but he is fervently defended by his human captain and ultimately determined to be a person. *Star Trek's* Federation is largely considered to be a representation of a utopian society, so it's reasonable that Data wouldn't face the discrimination that androids do in other works of science fiction.

Despite these occasionally positive portrayals, the cyborgs present in much of science fiction don't often align with Haraway's utopian vision. If the posthuman subject isn't a direct threat to the existence of the human race (i.e., Skynet), it is perceived as an inferior servant, which reinforces the anthropocentric hierarchies constructed by humanist thought (i.e. replicants in *Blade Runner*). The most compelling posthuman subjects, to me, are those that are more nuanced than the friendly android or evil supercomputer. Lending an inner life, subjectivity, and sympathetic characteristics to morally complex posthuman characters necessitates reflection in a way that the dichotomy of good and evil can't offer. Technology, on its own, is strictly neutral. It is the intentions and biases of creators, distributors, and users that determine whether it is friend or foe. This thesis examines science fiction with sympathetic posthuman subjects—androids, cyborgs, and people swapping bodies with others—in future worlds that haven't moved past humanism. These texts beg more pressing questions than the assertion that technology is bad; instead, they explore how it can be abused in unethical ways or how it exacerbates existing inequalities of humanism. The trajectory of our society doesn't suggest that technology will become a shrinking aspect of our daily lives. These narratives explore the

infinite range of possibilities for future technologies and what can result if we fail to adapt the dominant mindset of our species to one that is more compatible with a posthuman future.

I. Humanism

Posthumanism, a movement that seeks to move past the concept of the human, is defined against the slippery term *humanism*. At its simplest definition, humanism is a philosophy that privileges human intellect, subjectivity, and interests over all else. But as James L. Battersby writes, “Just as there is no such thing as history, only histories, so there is no humanism, only humanisms, a confusing, often contradictory, array of humanisms” (555-6). Humanism has existed for centuries and has taken many forms, so I will try to distill the core tenets of the philosophy as they appear throughout history.

The term humanism is used retroactively to refer to a group of scholars during the Renaissance, although they did not refer to themselves in this way. The commonality between all Renaissance humanists, according to Corliss Lamont, was an interest in Greek and Latin classics, an investment in secularizing the recording of history, and the belief that a robust education results in a better society (20). Perez Zagorin writes in his overview of humanism over time that Renaissance humanism’s goal was to create a class of men that were “classically educated, morally sound, accomplished in the arts of speaking and writing, competent to advise and serve in the governments of kings, princes, and cities” (Zagorin 88). Given that in medieval times, art was created for strictly religious purposes, the worldly and secular subjects that the Renaissance humanists were concerned with gained the scorn of the Vatican, despite many of these scholars being Christian. For instance, one of many important figures of Renaissance humanism was

Giovanni Pico della Mirandola (1463-1494), who expressed in his *Oration on the Dignity of Man* that there were limitless possibilities to what man could accomplish through self-actualization. Pico wrote:

Man is the most fortunate of living things, and, consequently, deserving of all admiration; of what may be the condition in the hierarchy of beings assigned to him, which draws upon him the envy, not of the brutes alone, but of the astral beings and of the very intelligences which dwell beyond the confines of the world. (4)

This speech, widely referred to as the “Manifesto of the Renaissance,” encapsulates the anthropocentrism that resides at the heart of Renaissance humanism and would come to define future iterations of the movement as well. It is also clear through his reference to “astral beings” that Renaissance humanists were far from atheistic.

Pico’s oration defines the importance of hierarchy in humanism, a tradition that reaches into ancient times. Protagoras, a fifth century BCE Greek philosopher, stated, “Man is the measure of all things, of things that are that they are, and of things that are not that they are not” (qtd in Lamont 31). The human has long served as a point of comparison, particularly with other creatures. This carries into the third century BCE, when Aristotle devised an animal classification scheme that would come to be known as *scala naturae*, which hierarchized humans over all other living animals (Granger 186). The *scala naturae* went on to be infused with Christian theology in the medieval Great Chain of Being, which put only God and angels above the esteemed position of the human. Hierarchizing the human above other living things justifies the interest in human rationality and exceptionalism that is central to humanist philosophy.

18th and 19th century Enlightenment humanists, who retroactively granted the Renaissance humanists their title, have both distinct similarities to and vast differences from their Renaissance predecessors. Although both Renaissance and Enlightenment humanists see humans as superior to all other living creatures, John Luik writes that, for Enlightenment humanists, “human dignity was not a function of man’s allegedly divine origin, but of the ordering and rational possibilities of earthly existence” (Luik). To Enlightenment humanists, human subjectivity is the definitive authority on truth and rationality. Philosophers like David Hume used this notion to promote empiricism, which is the theory that all knowledge derives from experience. Another distinction between these two movements are their perspectives on the sciences. Corliss Lamont notes that “many of the Renaissance Humanists displayed a profound and active disdain for natural science,” which set a foundation for the division of the humanities and sciences in academia in the coming centuries (20). But when a wave of scientific progress defined the Enlightenment period, humanists largely embraced it as a more rational explanation of worldly events than religion could offer. This agnosticism is reminiscent of the most familiar context in which humanism is seen today: secular humanism, which is intended to be an alternative to religion that affirms a sense of morality and duty that atheism is assumed to lack.

Another influential idea that arose from Enlightenment humanism is that of liberal humanism, which is foundational to the political and economic systems that exist today. Liberal humanism, like all other strains of humanism, is difficult to define precisely, but M.A.R. Habib writes that, “liberal humanism has comprised the mainstream philosophies of the bourgeois Enlightenment, such as rationalism, empiricism and utilitarianism”

(Habib, “Epilogue”). It encapsulates the laissez-faire market capitalism developed by economists like Adam Smith as well as John Locke’s vision of democracy and individual rights. This also includes an imperial impulse, according to Habib, who writes that liberal humanism seeks “not only to conquer other parts of the world for their economic resources but to submit them also to the civilizing effects of Western literature and culture,” which is an extension of the core beliefs about an educated populous that derives from Renaissance humanism (Habib “Epilogue”). Above all, the liberal humanist subject is an individual whose essence is not reliant on environmental influences. In the words of C.B. Macpherson, "Its possessive quality is found in its conception of the individual as essentially the proprietor of his own person or capacities, *owing nothing to society for them* ... The human essence is *freedom from the wills of others*, and freedom is a function of possession” (qtd. in Hayles 3). The individual, in this sense, is defined by the mind far more than the body or surrounding environment.

The 20th century saw scientific and philosophical developments that threatened the exceptionalism of the human. Zagorin writes that during this century, “the concept of man ceased to be dominated by humanistic assumptions, so man now not only stood apart from God, but also, with the ascendancy of the naturalistic perspective, ceased to be seen as a special being” (89). Zagorin notes that the devastation and depravity that took place in both World Wars shook the belief in the fundamental “dignity and nobility” of man (89). The perception of evolution as progressive, which reinforces the idea that the human is the most advanced living creature (i.e., the March of Progress illustration depicting an ape slowly morphing into the perfected human) was criticized as “scientifically undefensible (sic)” (Rigato and Minelli). Psychoanalysts like Sigmund

Freud posited that human personality was constructed not by conscious self-actualization but by the drives and irrationalities of the unconscious mind. As such, Michel Foucault famously declared “the death of man” in the 1966 book *The Order of Things* (373). Foucault writes, “It is no longer possible to think in our day other than in the void left by man’s disappearance. For this void does not create a deficiency ... It is nothing more, and nothing less, than the unfolding of a space in which it is once more possible to think” (373). Of course, Foucault is not referring to the literal death of humankind, instead declaring that the widely accepted conception that the human has of itself is collapsing. The increasing pressure on the humanist conception of the human lays the groundwork for posthumanism as an alternative philosophy to that of humanism.

II. Posthumanism

Ihab Hassan’s “Prometheus as Performer,” published in 1977, is an essay in the form of a play, in which various aspects of the text engage in dialogue regarding the waning of humanism as predicted by psychoanalysts like Freud and Lacan, as identified by Foucault and Levi-Strauss, and as intensified by the rise of the machine. Hassan writes, “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” (843). To some extent, posthumanism remains a slippery term that is invoked to describe a wide range of philosophies. Hassan determines the lowest common denominator of all iterations of posthumanism—the goal to move beyond the tenets of humanism.

Posthumanism, for instance, is a rejection of the anthropocentrism at the heart of humanism. In *How We Became Posthuman*, N. Katherine Hayles writes that “the

posthuman view considers consciousness ... as an epiphenomenon, as an evolutionary upstart trying to claim that it is the whole show when in actuality it is only a minor sideshow” (2-3). The posthumanist view sees human consciousness as an incident of evolution, just like the wide variety of remarkable traits (notably, ones that humans lack) seen in nonhuman animals. The essential differences that the humanist invokes to divide humanity from the animal or the machine are seen by the posthumanist as largely inconsequential, presumptuous, or fully false.

Through this blurring of difference, posthumanism also dismantles the hierarchies that organize the humanist view of the self and the natural world. Kate Manne writes in her critique of humanism that a humanist perspective fails to recognize divergent kinds of humans as categorically the same as the self. Manne writes that the Other can be viewed as “subhuman creatures, nonhuman animals, supernatural beings (e.g., demons, witches), or even as mere things (i.e., mindless beings)” (390). She specifically references Elliot Rodger, who conducted a series of fatal attacks in 2014 to broadly punish women for rejecting him and exact revenge on sexually active men for claiming the women he felt entitled to. In his manifesto, he doesn’t strip women of their autonomy because, to him, they use their autonomy against him. Incels, or involuntary celibates, a group that has since made Rodger into a martyr, refer to women as “femoids,” which is a portmanteau of female and android. It’s easy to see how the labeling of groups as a monstrous chimera of human and inhuman is directly connected to the labeling of groups as a posthuman threat. A woman, to the incel, is unfeeling and motivated by the hormones and drives that “program” her, and that can be weaponized to justify violence. If there wasn’t a hierarchical divide between the human and nonhuman, this comparison couldn’t happen.

These hierarchies are key justifications for imperialism, another ideology that is historically associated with humanist tendencies. Andrew Zimmerman applies this notion in terms of European imperialism, writing, “The paradox of non-Europeans for the European human sciences ... was that they were human yet could not be acknowledged as possessing full ‘humanity.’ Humanist notions of the self were both defined and profoundly threatened by the existence of humans whom Europeans regarded as inferior” (xiii). The belief that this supposedly inferior Other defines the European self can be seen in Hegel’s master-slave dialectic, in which the recognition and domination of the enslaved Other is used to construct the identity of the master. Habib claims that Hegel is “*the philosopher of liberal humanism,*” and his dialectics exposed the corruptions and contradictions at the heart of capitalist society and its imperial drive (“Introduction” 5).

In terms of how posthumanism defines itself in comparison to humanism, the most important distinction lies in the posthumanist rejection of the liberal humanist subject through the concept of the feedback loop, which inextricably ties the human subject to its environment. The Macy Conferences on Cybernetics, held between 1946 and 1953, were instrumental in developing the language and concepts used to understand how the minds of humans, animals, and, indeed, computers function in similar ways. Feedback loops are, in essence, the technological parallel to homeostasis in organic creatures. Both describe the phenomenon by which an individual seeks to maintain stability in response to a changing environment. A human, for instance, involuntarily shivers in response to a cold environment. In a similar sense, feedback loops have been an integral part of technological advancement since the centrifugal governors that regulated the flow of fuel in steam engines, whose legacy lives on in the tiny

microcontrollers that regulate the modern internal combustion engine. Explaining how this concept dismantles the liberal humanist subject, N. Katherine Hayles writes that “the idea of the feedback loop implies that the boundaries of the autonomous subject are up for grabs, since feedback loops can flow not only *within* the subject but *between* the subject and the environment” (2). The liberal humanist subject, considered to owe nothing to its society or environment, is a myth, as it is inextricably tied to its environment and other subjects.

Because posthumanist philosophy views a human subject as being enmeshed with its environment, it shares many core tenets with critical animal studies, which seeks to dismantle the systems of oppression that impact non-human animals. Jacques Derrida’s *The Animal That Therefore I Am* sought to deconstruct the boundary between human and animal as well as the extensive scholarly tradition that reinforced and even celebrated this boundary. Derrida accuses Aristotle and the “Greco-Judeo-Christiano-Islamic tradition,” including Adam’s naming of Earth’s animals in Genesis, of setting the foundation for this seemingly common-sense differentiation of humans from the rest of the animals that exist (55). The experience at the center of Derrida’s lecture was the embarrassment and vulnerability that resulted from being observed by a cat in the nude, which suggested to him that the cat possessed subjectivity. Derrida writes that the discourses of philosophers like Descartes and Kant are “sound and profound, but everything in them goes on as if they themselves had never been looked at, and especially not naked, by an animal that addressed them” (14). Although the cat did not use language to address Derrida, he regards the cat’s subjectivity as valid nonetheless. Similarly, Jeremy Bentham, a 17th-18th century utilitarianist philosopher and early animal rights advocate, wrote that speech

or reason cannot be used to privilege the human over the animal because “a full-grown horse or dog is beyond comparison a more rational, as well as a more conversable animal, than an infant” (311). Indeed, there are plenty of people who are undeniably human that do not fit the various criteria presented by the humanist. Instead, Bentham says that the question should not be if the animal can talk, but if it can suffer (311). Derrida writes that this question reframes the comparison of the human and animal from faculty to passivity, “a not-being-able” (27). The definition of a valuable living creature, to Bentham, should not be whether it is able to talk or reason, but whether it is *not* able to withstand agony. It is a blatant reminder of the mutual helplessness in the face of death that the human shares with the non-human, a notion that, Cary Wolfe writes, “it has been the business of humanism largely to disavow” (“Human” 570).

Wolfe argues that any attempt of a marginalized group to shift upward in the hierarchy within the human race ultimately reinforces the notions of liberal humanism that create those hierarchies in the first place. He uses a collection of papers published from a conference on disability to demonstrate this. In these papers, the authors use specific examples as to why those with disabilities are deserving of equality, which includes their transition from being the objects in experimental studies to the subjects doing the observing and studying. They use the liberal humanist subject as the prototype of a person that deserves rights and liberties, and specifically highlight the attributes that a historically marginalized person has that mimic that of the liberal humanist subject. Wolfe writes that activism that works within a liberal humanist framework “allow[s] one to achieve certain pragmatic gains in the short run, but at the price of a radical foreshortening of a more ambitious and more profound ethical project: a new and more

inclusive form of ethical pluralism that is our charge, now, to frame” (137). Wolfe’s profound ethical project seems to be the foundations of Haraway’s cyborgian utopia, in which politics are comprised of “transgressed boundaries, potent fusions, and dangerous possibilities” (228). In a cyborg world, this multiplicity of embodied experience could be reinterpreted as a lateral type of diversity, rather than a ranked classification, forging a more equitable world for the humans who currently inhabit it and the posthuman subjects to come.

III. The Mind–Body Problem

One possible way to forge a more hospitable society for all people is to embrace the diversity of bodies as a strength rather than a weakness. This, however, requires one to consider the body as an essential part of forming one’s own subjectivity. On the contrary, Descartes, the 17th century philosopher who famously determined “I think, therefore I am,” pioneered the belief that the human mind and body are ontologically distinct. In fact, he posed that the universe was solely composed of those two substances, the mind as a thinking, unextended substance and the body (or physical matter) as unthinking, extended substance (Dicker 86). This generated what is referred to as the mind–body problem, which asks how two ontologically different substances are able to sustain a causal relationship. Descartes himself offered weak explanations, but many have contributed their input over the centuries.

The debate regarding the connection between the mind and the body poses conflict within humanism and posthumanism alike. Mind–body dualism reinforces the humanist belief in the exceptionalism and rationality of the human mind, as Descartes claimed that the mind (a trait that he doesn’t grant to non-human animals) was the only

“thinking” substance in the universe. Descartes’ conception of mind–body dualism is often attributed to humanist philosophy on the grounds of privileging the human mind over the body that contains it (Bartosch 148). Derrida writes that to Descartes, the animal-machine is “deprived of a ‘me’ or ‘self,’ and even more of any capacity for reflection, indeed of any mark or autobiographical impression of its own life” (76). By arguing against an animal subjectivity, Descartes posits that the human mind is extraordinarily exceptional in that it is unlike every other substance that exists in the universe.

In posthumanism, mind–body dualism is sometimes affirmed through the notion that consciousness is simply informational patterns, which are independent from physical substrates. Influential roboticist Hans Moravec, for instance, imagines a reality in which a human consciousness could be uploaded to a computer unchanged. He claims that identity and consciousness are strictly composed of patterns within the brain, like binary code. Although posthumanists can argue that the information that constructs the mind can be disembodied, some argue that embodiment also plays a crucial role in the construction of that information. Hayles asserts that although posthumanism *privileges* informational patterns over materialism, reinforcing mind–body dualism is far from the “most compelling” posthumanist perspective (246). Wolfe takes a stronger stance against this notion, reading Moravec’s transhumanist fantasy of the transcendent consciousness and perfectibility of human form as “an *intensification* of humanism” (xv). Wolfe goes to great lengths to distinguish his critical posthumanist work from that of transhumanists (xx). Critical posthumanists generally oppose the notion of mind–body dualism, insisting that the mind and the body fundamentally construct one another, or even that they are one

and the same. In his exploration of posthumanism in reading practice, Roman Bartosch writes that “recent work on finitude, and shared creatureliness has proved fruitful for taking into account the commonalities between humans and animals” (146). If the mind of an animal ceases to exist without the body and the functions of a computer aren’t possible without the physical components that build it, then the same principles are true of the human animal.

Secular humanists reject mind–body dualism for much the same reasons as do critical posthumanists like Wolfe or Bartosch: the human is subject to natural forces as much as any other living creature. In the 1990 book *The Philosophy of Humanism*, Corliss Lamont lists central components of modern humanist philosophy, one of which is that “man is an evolutionary product of the Nature of which he is part; that his mind is indivisibly conjoined with the functioning of his brain; and that as an inseparable unity of body and personality he can have no conscious survival after death” (13). The notion of the human as a product of evolution bears great similarity to Hayles’ conception of the consciousness as a “minor sideshow” in the history of human evolution (3). The loss of religion in humanist philosophy, from the gentle secularism of Renaissance humanism to the outright atheism of secular humanism, has forced the humanist to abandon mind–body dualism in the 20th century and onward.

For the purposes of this thesis, I will follow in the tradition of primarily attributing mind–body dualism to humanism, as it influenced a great deal of humanist philosophy and, for centuries, provided reasoning for hierarchizing the human above “lesser animals,” even if the secular humanists of modern day don’t literally believe that the mind can subsist without the body (Bartosch 148). Although much of the

posthumanist science fiction I will examine imagines the segregation of the consciousness from the physical confines of the body (such as the body-swapping narratives that will be analyzed in Chapter 3), these narratives tend to depict flaws in the technology or the “memories” held within the body, even without a brain. In this sense, the notion of embodiment constructing one’s subjectivity inextricably links the mind to the body.

IV. Posthumanism and Humanism in Science Fiction

This thesis explores how the vestigial hierarchies of humanism hinder or taint the construction of various posthuman subjects in science fiction. Haraway writes that “the boundary between science fiction and social reality is an optical illusion” (226). It’s certainly the case that many works of science fiction, particularly dystopian science fiction, critique the lived realities of the present day. However, I think that it’s also crucial to read these works of science fiction as they present themselves: as imagined futures. Fiction writers do the work that scientists can’t. They envision and conjure the infinite possibilities that can arise from even one small change to our social reality. In these works, the troubling aspects of their societies don’t derive solely from the presence of advanced, posthumanist technologies. Instead, the discontent arises from the monstrosity that results when technological posthumanism comes to fruition while the social reality remains grounded in humanist hierarchies. Technology is an exceedingly efficient tool in reinforcing hierarchies and stratifying castes.

Throughout this thesis, I will be borrowing Zoltán Boldizsár Simon’s terms used to distinguish between different forms of posthumanism in his essay “Two Cultures of the Posthuman Future.” *Critical posthumanism* describes the “philosophical criticism of

humanism and what is variously referred to as the figure of ‘Man,’ the Protagorean measure of all things, the Cartesian subject, or the liberal subject of human mastery, agency, and reason” (Simon 173). A critical posthumanist can possess a posthuman viewpoint without having the inorganic components that define *technological posthumanism*, which involves the fantastical, future technology you might associate with the posthuman subject (Simon 178). These works of science fiction on which I will focus posit possibilities of the inherently unknowable future of technological posthumanism. Notably, though, these posthuman subjects are entrenched in a world still shaped by humanist philosophy, not critical posthumanism. This is the root of the conflict in these works of fiction.

The first chapter explores artificial intelligence in technological posthuman subjects. In the androids of Philip K. Dick’s *Do Androids Dream of Electric Sheep?* (1968), the liminality expressed in both human and android identities serves to blur the line between the human and inhuman. This indistinguishability between the human and the nonhuman, the rejection of human exceptionalism, and the questioning of the autonomy that the free market is supposed to provide are indicative that Dick is arguing for critical posthumanism in his novel. He suggests that the authenticity of one’s perceptions do not depend upon the authenticity of their origins. This novel is juxtaposed with Larissa Lai’s short story “Rachel” (2004), which takes on the first-person subjectivity of a prominent android in Dick’s text. However, Lai addresses the intersections of race, gender, and posthumanity through the sympathetic rendering of Rachel’s subjectivity.

Shifting from completely artificial subjects to modified human ones, the second chapter examines subjects fitted with prostheses—technological components that supplement the organic body. Malka Older’s “The Black Box: These Memories are Made to Last Forever” (2016) details how prosthetics can impact the perception of the self. Older also posits that the perception that technology is infallible can end badly. These subjects are commonly referred to as cyborgs. Carole McDonnell’s short story “Lingua Franca” (2004) explores how prosthetics can be used to support colonization and erase cultures, including the cultures formed within disabled communities. Finally, “Jon” by George Saunders (2003) satirizes American consumerism and commercial culture through the depiction of teenagers whose sole referents in language derive from a chip containing thousands of advertisements that was implanted in their brains in infancy. These texts examine the possibilities of how technology can be wielded to reinforce capitalist interests and imperialist goals. It also addresses how technology, like any living body, isn’t infallible.

The third chapter contains works that involve body swapping, a trope that is often neglected in posthumanist scholarship on science fiction. In some ways, body-swapping is a confirmation of mind–body dualism, as the mind is literally being segregated from the body. Transhumanists largely embrace this idea, celebrating a future in which humans can live within a computer with no perceptible changes. Many posthumanists, such as N. Katherine Hayles and Cary Wolfe, argue to the contrary that embodiment plays a large role in constructing the consciousness. The narratives examined in this chapter raise important questions about how embodiment shapes the mind, despite their depiction of what seems to be the clean separation of the mind and body. In Richard K. Morgan’s

Altered Carbon (2002), consciousness is stored in a device at the base of the brain, which can be removed and installed in any range of bodies. Calvin Gimpelevich's short story "Rent, Don't Sell" (2017) depicts an amputee who makes a living by swapping into the bodies of the rich and exercising so they don't have to consciously. When a transgender character regrets her decision to permanently swap bodies with someone else, the issue of body ownership is raised. Finally, James Tiptree Jr's short story "The Girl Who Was Plugged in" (1973) is set in a future in which advertisements are illegal, which corporations subvert by employing models to publicly tout their products. A socially rejected teenager attempts suicide and is recruited by a company to remotely provide the consciousness to a manufactured body. All of these narratives depict the ways in which the body and the mind are intrinsically connected and the ways in which hierarchies that are based in embodied traits persist, despite the lack of ownership the mind has over the body in these settings.

None of these texts are depictions of the utopian future that Haraway envisioned, despite the presence of incredible technologies and unique posthuman subjectivity. However, the anthropocentrism and oppressive hierarchies that have emerged from humanist philosophy reside in the center of this dystopia, an outdated model made for a world that is long dead.

Chapter 1: Artificial Intelligence

The imagery of a posthuman future often involves robots, cyborgs, and androids, three related concepts with different definitions. A robot is *any* programmable machine, from the iRobot Roombas that autonomously vacuum houses to the unmanned space probes exploring our solar system and beyond. Within the realm of robots are androids, which are robots that are specifically designed to look like humans. This term has been used in a wider range of ways than that of “robot” or “cyborg,” but it generally denotes a synthetically made human being composed of anything from dead flesh (Frankenstein’s monster) to mechanical components (Data from *Star Trek: The Next Generation*). Cyborgs, on the other hand, are organically born humans who are equipped with artificial components or technology. In *Star Wars*, for example, R2-D2 is a robot, a programmed machine with a non-human appearance and behaviors; C-3PO is an android, a programmed machine with a humanoid appearance, voice, and anxieties; and Darth Vader is a cyborg, an organically born human being whose limbs have been replaced with mechanical parts.

Many fictional androids possess artificial intelligence (AI), a feature that has been a source of anxiety for centuries. AI is a term that is colloquially used to describe a machine that is capable of the vast range of abilities that the human brain has and beyond. The possibility of AI in a future world has been prominent since the Industrial Revolution. Samuel Butler, for instance, penned a letter to the editor of *The Press* expressing his concerns about it in 1863. In “Darwin Among the Machines,” Butler uses the newly published theory of evolution to consider the accelerated rate of technological evolution. Vast technological change was apparent in the span of a single human lifetime,

unlike the imperceptible shifts in animal and plant populations. He writes that “we are ourselves creating our own successors” and that humans will become a slave race when technology is able to surpass us (Butler 182). He warned that humans would become the inferior species if we fail to destroy “every machine of every sort” (Butler 185). It’s uncanny, really, how familiar this argument is to this day. It’s similar to the Singularity, a concept popularized by Vernor Vinge in 1993. The Singularity is the point at which technology with greater-than-human intelligence comes about, be it through intentional development or the coalescence of massive computer networks, which Vinge says will likely occur as “a great surprise and a greater unknown” (13). Vinge doesn’t suggest, like Butler, that we should take the extreme route of destroying all modern technology to avoid the Singularity. But he does note, “The dilemma felt by science fiction writers will be perceived in other creative endeavors” (Vinge 14). The centuries-long prescience and trepidation of fiction writers, by the 1990s, was coming to fruition.

By the time Vinge wrote “The Coming Technological Singularity,” computers were a tangible reality, which contributed to the language and concerns of science fiction writers. The science behind AI began, like many aspects of computer science and robotics, with Alan Turing’s theory of computation, which essentially suggests that a machine, using something as simple as binary code, could simulate any act of mathematical deduction. This notion inspired the McCulloch-Pitts mathematical model of the neuron in 1943, a physical and symbolic model that ultimately suggested that “the human brain could be thought of as a computing device” (Hardesty). Although advancements in cognitive science have expanded upon this conception of the human brain, the McCulloch-Pitts neuron will be familiar to anyone that has vague memory of

high school biology: the neuron has inputs that are either excitatory or inhibitory and a threshold that determines how much excitation it needs to fire. These individual neurons communicate with one another to create neural nets, which are collectively capable of deriving conclusions from complex sets of information. The McCulloch-Pitts neuron has informed cognitive science and computer science alike. Artificial neural nets have allowed for machine learning, in which a computer learns to perform a task by analyzing examples. However, McCulloch stops short of claiming that brains *are* computers, writing, “Just because the theory is so general as to fit robot and man, it lacks the specificity required to indicate mechanism in man to be the same as mechanism in robot” (qtd. in Hayles 60). Arguably, the McCulloch-Pitts neuron’s largest cultural impact was providing the language and perspective to shift both colloquial conversations about technology and science fiction as a genre. The privileged relationship of the human to information began to fall apart, and the rapid advancement of technology furthered that erosion. Although it’s fair to say that no machine is currently capable of recreating human intelligence, computer scientist Larry Tesler’s theorem states that artificial intelligence is defined by whatever machines haven’t done yet (Hofstadter 601). The features that constitute AI will continuously be altered as computers accomplish more feats. Robots have already achieved significant milestones, including expertise in Go, a 3000-year-old game with considerably more legal board positions than there are atoms in the observable universe (Koch). As the range of AI capabilities expand and deepen, science fiction writers gain a wider depth of language and referents from which to communicate concepts and more fodder for possible dystopian futures.

Despite the advancements in computer science expanding the potential futures depicted in science fiction, it is worth noting that many of their narratives are responses to a novel published when the steam engine was gaining traction: Mary Shelley's 1818 novel *Frankenstein; or, The Modern Prometheus*. Foundational science fiction author Isaac Asimov developed his Three Laws of Robotics to avoid what he calls the "Frankenstein motive," a relatively common, fear-mongering science fiction trope in which a creation turns against his creator (Asimov 1975). Although many of Asimov's stories push against his own laws, pulling the strings of anticipated shortcomings and ethical dilemmas, Asimov's laws have gone on to be the unspoken rules of countless science fiction works and have even provided an ethical basis for the development of robots outside of the confines of fiction. The Three Laws of Robotics are that (1) a robot cannot injure a human being or allow a human being to be harmed, (2) a robot must obey human orders except where said orders conflict with the first law, and (3) a robot must protect its own existence as long as it doesn't conflict with the first or second law (Asimov 1975). These programmed rules, in theory, would prevent a robot from taking revenge on humans for consigning it to a life of servitude.

However, Philip K. Dick's *Do Androids Dream of Electric Sheep?* and Larissa Lai's "Rachel" are more concerned with what constitutes the difference between a creation and its creator in the first place, a notion that pushes against the rigid rules of Asimov and humanism in general. After all, Shelley's monster, despite being as introspective and intelligent as any other person, is rejected by his creator and society at large because of his disturbing appearance. Victor Frankenstein brought something into existence only to fear and loathe it, making the suffering he endures at the hands of his

creation more ethically conflicted than the pop-culture interpretation as articulated by Asimov allows. If someone intentionally creates conscious beings, and those conscious beings will inevitably be exploited for their labor, then how is it ethical to fundamentally inhibit the being's ability to achieve fulfillment or emancipation? Dick's perspective is less grounded in human interests and more grounded in questioning the way we define humanity, free will, and reality. Thus, Dick spent much of his writing career focused on "liminal beings," to borrow the terminology of Robert MacDougall (50). A liminal being, according to MacDougall, is "any creature or entity that defies easy placement in a particular category of existence" (50). This is certainly true of Frankenstein's monster and is equally true of the androids in Dick's novel. The only difference is that Dick's androids aren't distinguishable from humans as obviously as Shelley's monster is.

This deliberate lack of distinguishability between the human and the nonhuman is indicative that Dick is arguing for critical posthumanism in his novel. I disagree with the humanist reading of this text offered by Robert MacDougall and Adam Pottle, as Dick rejects both the notion of the human as exceptional and the autonomy that is intended to emerge from the free market of liberal humanism. Dick captures a future in which the nonhuman increasingly expresses traits that are typically assigned to the human while the human loses those traits. Additionally, the attempt to discredit the empathy-based religion Mercerism by exposing its phony genesis fails, symbolizing that the authenticity of one's perceptions do not depend upon the authenticity of their origins. In a 2004 adaptation of Dick's novel, Larissa Lai's "Rachel" offers a similar defense of liminal beings. However, Lai addresses the intersections of race, gender, and posthumanity through the rendering

of Rachel's subjectivity. The story draws striking similarities between the objectification of Asian women and the objectification of androids in literature.

I. Do Androids Dream of Electric Sheep?

In *Do Androids Dream of Electric Sheep?* Dick offers a posthumanist critique of the delineation between the organic and artificial through the depiction of the increasing humanization of androids and increasing dehumanization of humans. Androids are depicted with consciousness, memories, and interpersonal relationships while humans grow more distant and emotionally sedated in the face of late-stage capitalism. *Do Androids Dream of Electric Sheep?* is set on a barren and desolate Earth following a nuclear war. Those privileged enough are given the ability to emigrate to Mars to escape the radioactivity that plagues Earth and are provided with a free humanoid android. When some of these androids begin to revolt and escape to Earth, police stations create the role of the bounty hunter, officers who hunt and kill these fugitive androids. The story follows bounty hunter Rick Deckard as he attempts to destroy a group of advanced Nexus-6 androids who have killed their human masters and fled to Earth in an attempt at liberation. These androids are constructed from the same organic matter that constitutes humans, meaning that the only concrete, quantifiable way to identify an android as such is to sample their bone marrow for testing post-mortem. Bounty hunters like Deckard use the Voigt-Kampff test before killing a potential android. This test assesses a capacity for empathy, a human trait that androids are thought to lack.

One way that Dick puts pressure on humanism in the novel is through the comparison of androids to slaves, which serves to justify the androids' reasons for escaping to earth. This is interwoven into the narrative from the very beginning of the

text, when Deckard's wife Iran refers to the androids Deckard kills to make a living as "those poor andys" (4). Her pity for the androids infuriates Deckard, but when he goes to work he is confronted with the information that the newest model of androids, the Nexus-6, have surpassed several groups of humans in terms of intelligence. "The servant," Deckard notes, "has in some cases become more adroit than its master" (29). In a Hegelian context, this poses a deep-seated threat to many of the human characters of the novel, as the androids do much more for humans than humans do for androids. Despite this, the androids, who were intelligent and independent enough in their earliest iterations to be aware of their own exploitation, are difficult to demonize even from the novel's outset. In fact, the creation of the bounty hunter in response to escaped androids seeking emancipation bears great similarity to the history of policing in the United States. Although loosely organized watchmen were responsible for defending early colonial communities, the origins of modern policing can be boiled down to slave patrols, the suppression of labor uprisings, and xenophobia (Lepore). Quite literally, the androids in Dick's novel begin their lives in slavery, kill their masters, and run away to try to find refuge. Garland, one of the androids, remarks that on Earth, "Every worm and wood louse is considered more desirable than all of us put together" (113). The story of these androids is not akin to Frankenstein's monster seeking vengeance on his cowardly owner; this is an allegory of runaway slaves seeking emancipated lives. This allegory is explicitly alluded to when a television advertisement for the androids says that an android "duplicates the halcyon days of the pre-Civil War Southern states!" (17). And it goes without saying that stripping away the potential of humanity from these androids (to the degree that they are not murdered but *retired*) also reflects the dehumanization of chattel

slaves in American history. The historical context that the reader likely brings to a reading of this text lays the groundwork for a sense of empathy for androids before they ever appear in the text. Dick is clearly critiquing the humanist philosophy that *did* allow slavery.

Eldon Rosen, the manufacturer of the Nexus-6 androids, warns that, despite the ethical issues that arise from the enslavement of his creations, the androids will continue to grow less distinguishable from humans in order to meet market demands. This lays the groundwork for Dick's critique of the negligence and greed that arises from free-market capitalism. Deckard is sent to the Rosen Organization to verify that the Voigt-Kampff test is effective at identifying the new Nexus-6 androids. It is established that police on Earth are largely powerless to halt the private production of these androids, despite their difficulty in identifying and retiring the escapees. This time, though, the top bounty hunter in the city was seriously injured by a Nexus-6 android, making the threat to the Rosen Organization more real than it's ever been. Deckard reflects that "by coming here he had brought the void to them, had ushered in emptiness and the hush of economic death" (43). To the Rosens, their business could very well fail if the Nexus-6 stops being produced, and Eldon Rosen believes that implementing a manufacturing ban simply wouldn't accomplish what the police hope it will. He argues, "We followed the time-honored principle underlying every commercial venture. If our firm hadn't made these progressively more human types, other firms in the field would have" (51). There is demand for humanoid servants on the new, inhospitable home of the human race, and Eldon Rosen is determined to be the person who profits from that demand. He insists, likely correctly, that if he doesn't manufacture increasingly advanced androids, a

competitor will. He even sends Rachel, his android “niece,” to feign assistance to Deckard when she really seeks to find precisely what traits confirm that a Nexus-6 is, in fact, an android so that they can make a new and improved model. “And we then have the Nexus-7,” Rachael tells Deckard, “And when that gets caught, we modify again and eventually the association has a type that can’t be distinguished” (174). This is ultimately where Dick’s critique of capitalism arises. The Rosen Association is solely motivated by profit, so they don’t care to consider the implications of manufacturing an artificially created human for the purposes of slave labor.

The human characteristics of these androids aren’t strictly observed in their physical composition: androids like Luba Luft display an appreciation for art and self-awareness that suggests a level of humanity that supersedes organic composition. Jimena Escudero Pérez writes in her exploration of tropes in science fiction featuring female androids that “artistic sensibility and expression seem to determine these characters’ evolution much more than formal examination” (331). This certainly seems to be Deckard’s impression of Luba. Luba Luft is a celebrated opera singer, and it’s clear that Deckard feels more sentimentality and empathy towards Luba than other androids even before he meets her: “Maybe Dave guessed wrong on her, he conjectured. I hope so” (92). Her talent in opera singing, a distinctly human art form, endears her to him and forces him to reckon with the value she adds to the world. She is contributing to human culture in a way that other androids, it seems, are not interested in. She says that she never liked androids and sought to replicate the actions and impulses of humans, which she calls, “a superior life form” (Dick 124). But when Deckard does meet her, Luba

confronts Deckard's own lack of empathy and forces him to question the ethics of his work:

“An android,” he said, “doesn't care what happens to another android. That's one of the indications we look for.”

“Then,” Miss Luft said, “you must be an android.” (Dick 94)

This plants a seed of doubt in Deckard's mind that was, on the surface, disproven when he is tested and determined to be human later in the story. But the larger issue of empathy, and his lack of it, is something that haunts him for the remainder of the narrative.

On the other end of the humanoid spectrum is Roy Baty, a cruel and cold android that mirrors the thoughts and behaviors of the supposedly human bounty hunter Phil Resch. Baty is the leader of the group of androids who escape to earth, an action that is described in a police report as in an attempt to attain “the sacredness of so-called android ‘life’” (Dick 169). Baty is willing to go to violent ends to achieve this goal, killing various humans on Mars in order to get himself and his group to Earth. He strives to achieve a heightened sense of empathy through drugs, but when it fails, he violently rejects the idea of empathy and the sanctity of life. On the other hand, Phil Resch is a bounty hunter that Deckard finds working in an ersatz police station headed by android Inspector Garland. Garland claims that Resch is an android, and Luba Luft independently asserts this when she is apprehended by Deckard and Resch. Resch quickly shows that the coldness that is thought to exist in androids certainly exists in him as well. When Luba provokes Resch by continually suggesting that he is an android posing as a human,

he hastily and publicly shoots her. Deckard is shaken in this moment, asking Resch if he thinks androids have souls. Resch is unbothered by her death, but Deckard thinks, “I don’t get it; how can a talent like this be a liability to our society?” (Dick 126). At this point, both Deckard and Resch are all but convinced that Resch, too, is an android, but they both test as human. This leaves two equally disturbing explanations: that the test is wildly inaccurate and Resch is, in fact, an android or that Resch is human and his lack of empathy is just as human as the rest of him. By the time Deckard has to kill Roy, Roy’s wife Irmgard, and Pris, an android that is identical to Rachel, his faith in the system and in his own role as a bounty hunter is shaking. When Deckard shoots Irmgard, Roy cries out in grief, which leads to a final epiphany for Deckard: “‘Okay, you loved her,’ Rick said. ‘And I loved Rachael’” (Dick 205). Although Roy is one of the most callous characters in the narrative, he still experiences love, which seems to be the common denominator between the human and the android. After all, Resch is as insensitive as Roy, yet maintains the title and privilege of being a human.

In *Do Androids Dream of Electric Sheep?*, the distinction between the human and the android is not only complicated by the organic composition and human urges of the androids: the humans in the story have their own emotions and sense of empathy supplanted by technological commodities. The opening scene of the novel shows Deckard and Iran waking up in the morning with the help of a mood organ, a device that can stimulate an unthinkably large range of emotions in a user. Iran shows skepticism toward the mood organ and Deckard’s line of work long before Deckard grows disillusioned, calling him a “crude cop” when he tries to convince her to use her mood organ to wake up (3). In response to this insult, Deckard feels irritable, although “he

hadn't dialed for it" (3). There is a sense that the normalized experience of emotions is heavily scheduled and intentional in a way that feels artificial. Iran affirms this when she reflects upon a time when she intellectually understood and perceived the emptiness of the abandoned apartments around them without reacting emotionally because her mood organ put her "in a 382 mood" (5). Iran says, "But that used to be considered a sign of mental illness; they called it 'absence of appropriate affect'" (5). In terms of how a human is defined in this text and otherwise, the lack of appropriate emotional reactions says a lot about the mass dehumanization caused by nuclear warfare and rampant consumerism. This also alludes to the fact that what is considered "mental illness" shifts with time. There is no objective test to measure the amount of mental illness someone has. So when absence of appropriate affect becomes the norm, it stops being classified as an abnormality. This points at the futility of testing the humanity of androids and the cultural expectations and biases that created this test in the first place.

The absence of affect in humans is brought up again when Deckard is sent to verify that the Voigt-Kampff test is effective at distinguishing humans from androids after doubts about its efficacy arise. Russian psychiatrists have hypothesized that schizophrenic humans that display a flattening of affect could potentially fail the Voigt-Kampff test. The chief tells Deckard, "If you tested them in line with police work, you'd assess them as humanoid robots. You'd be wrong, but by then they'd be dead" (36). Deckard tries to rationalize this undeniable possibility by noting that those who have the highest potential to fail the test would likely be institutionalized before they ever encountered a bounty hunter. Still, the fact that *any* human could fail a test that is solely designed to discern a human from an android makes the test inherently invalid. It begs the

question: what would happen if a human who was in a scheduled complacent mood, like Iran, was subjected to the test? If they show an “absence of appropriate affect” like Iran posits, then surely, they would have the same chance of failing the Voigt-Kampff test as someone with psychosis. Before an android ever enters the text, the idea that an expected and involuntary emotional response is the definitive distinction between the human and the Other is deconstructed.

A strange religion called Mercerism arises to combat the lack of appropriate affect present in the human population, which can be interpreted as Dick’s criticism of the role of religion in late-stage capitalism. I argue that this critique is a relatively minor aspect of its significance. Mercerism is the worship of a martyr figure named William Mercer, who once had the ability to bring the dead to life before his powers were repressed by negative figures only referred to as the killers. Thus, empathy and valuing life in all forms are central to the worship of Mercer. The central image of Mercerism is that of William Mercer infinitely ascending an otherworldly hill, being pelted by rocks thrown by these killers. Most homes contain an empathy box, which is described as a small black box with two handles for the user to hold onto. While using an empathy box, a person is plunged into an immersive virtual reality in which they are fused with the endlessly climbing William Mercer and all other people using their empathy boxes at the time. In his essay comparing the dystopias in *Do Androids Dream of Electric Sheep?* and *Blade Runner*, Christoph Houswitschka writes that every aspect of this society is commodified and “hollow,” including the experience of Mercerism (130). I think that Dick views the role of Mercerism in this society in much the same way as Marx saw the role of religion, with Marx writing, “Religion is the sigh of the oppressed creature, the heart of a heartless

world, and the soul of soulless conditions. It is the opium of the people” (Marx 13). The last part of this quote, ripped from its context, has been used by atheists to belittle religion in recent years, but Marx doesn’t seem to be suggesting that religion is hollow in the same sense that Houswitschka does. Although Marx was deeply critical of religious institutions, he argued that religion could only be rendered unnecessary if material conditions of the people improved. And it follows that as the material conditions of the people on Earth decline in Dick’s novel, their reliance on religion for a sense of purpose and connectedness only grows stronger.

That being said, the unveiling of Mercerism’s phony origins and the persistence of its presence is an allegory for the significance of emotion among androids: the authenticity of empathy and connectedness are not reliant on the authenticity of their origins. J.R. Isadore, a physically isolated and disabled man, uses this technology as a prosthesis for companionship, understanding, and even physical touch. Isadore says that the empathy box is “an extension of your body; it’s the way you touch other humans, it’s the way you stop being alone” (62). This device enables users to shed the perceived isolation that plagues their embodied lives. Near the novel’s conclusion, Buster Friendly, the star of the only television channel and covert android, airs a detailed exposé on the false pretense behind Mercerism. The footage used in the empathy boxes depicting Mercer walking up a hill while being struck by rocks was filmed on a soundstage with a bit actor, not on another planet with a god-like figure. Despite this, both Isadore and Deckard experience an enlightening encounter with Mercer shortly after this report airs. When Isadore spirals into a panic after listening to the report, Mercer appears to him and tells him, “They will have trouble understanding why nothing has changed. Because

you're still here and I'm still here" (198). The exposé does nothing to eliminate the need that Mercer fills in the unfulfilling and hopeless lives of the people stranded on Earth, so Mercerism will persist. Police around the world reported that the empathy and solidarity that was fostered through Mercerism lowered crime rates, which goes to show how central it is to a functioning society (70). Even Deckard, who wasn't a strict adherent to Mercerism at the beginning of the novel, goes as far as to claim that he has permanently fused with Mercer by the novel's conclusion, which causes him to perceive "life which we can no longer distinguish; life carefully buried up to its forehead in the carcass of a dead world" (219). Deckard's encounter and deep sense of empathy with Mercer ultimately gives him empathy toward life in its many forms, which for the first time includes artificial life. The tangible effects of belief in Mercerism are far more consequential than the veracity of its claims. Likewise, the androids' experiences of emotions like hope (i.e. their attempt at liberation), passion (i.e. Luba Luft's opera career), and love (i.e. The Batys) are as valid and palpable as the contrived human experience of connectedness through Mercerism and the empathy box. The artificial origins of the androids' creation, much like that of William Mercer, are irrelevant.

Through the blurring of boundaries between the human and the machine, Dick argues for critical posthumanism. By the conclusion, the protagonist loses much of the biases he held against the nonhuman. Deckard expresses some disappointment when a toad he finds in the desert is revealed to be artificial, but acknowledges that it is alive regardless, an attitude he didn't possess at the novel's opening. Additionally, the revelation that the roots of Mercerism are as artificial as the enslaved androids proves

futile, as people maintain their faith regardless. This suggests, albeit subtly, a potential shift in the public attitude toward the segregation of the organic and artificial.

Some scholars view Dick as arguing for humanism in this text, which I disagree with. That being said, my disagreement generally lies with their characterization of humanism and posthumanism. For instance, Adam Pottle argues that Dick's novel "criticizes eugenics as a posthuman endeavor" through the disenfranchisement of J.R. Isadore, a character prohibited from reproducing or emigrating to Mars on the basis of his radioactivity-induced brain damage (Pottle). I do agree with his reading of the novel, particularly in that the evaluations used to categorize people (and androids) are insufficient in capturing the vast diversity of experience. Isadore, as Pottle notes, "has more empathy than any other character in the novel" (Pottle). Yet in a society that values empathy above all else, he is relegated to an existence with no future. However, unlike Pottle, I don't think the conclusion of this novel, particularly in Deckard's evolving attitudes towards artificial beings, suggests a condemnation of posthumanism broadly. Pottle writes, "Considered alongside the novel, the eugenics movement suggests that those people who prize logic and intellect above all else are really aiming for a world of androids, a world in which diversity, as signalled by animals and by persons with disabilities, has been minimized, if not eliminated" (Pottle). This is certainly true of eugenicists outside of the realm of Dick's novel, but it's clear in the novel that the androids themselves have diverse personalities and interests, a notion that Pottle neglects. But more importantly, they are also subjugated and enslaved, not celebrated for their intellectual prowess. The critique of eugenics that Pottle suggests is happening in the novel would make the androids the dominant race. However, the androids are not at the

top of any hierarchy in the novel because Dick isn't suggesting that the creation of androids is a eugenicist effort. Instead, Dick criticizes the false dichotomies and hierarchies that are generated and reinforced by humanist philosophy. Andrew Zimmerman writes in "Anthropology and Antihumanism in Imperial Germany" that "The paradox of non-Europeans for the European human sciences ... was that they were human yet could not be acknowledged as possessing full 'humanity.' Humanist notions of the self were both defined and profoundly threatened by the existence of humans who Europeans regarded as inferior" (xiii). The individuality inherent to humanist philosophy requires, in Hegelian terms, a subservient Other to recognize the dominant individual. A European humanist valued humanity as defined by him, not humanity as defined by nature. This false taxonomy of humans, from the idealized image of man to the barely human Other, parallels the privileged position of the able-bodied, neurotypical human and the literally barely-human android depicted in Dick's novel. This is a distinguishably posthumanist critique of the hierarchies that have defined the history of humanist philosophy, as the android-Other is exploited, not celebrated.

Similarly to Pottle, Robert MacDougall writes that Dick's work is "infused with a gentle humanism," which is represented by the "existential fear" that arises when faced with the loss of Cartesian mind-body dualism (53). I can't speak for Dick's entire oeuvre, but I don't agree that *Do Androids Dream of Electric Sheep?* comes to humanist conclusions. The existential conflict that arises in a character like Deckard when faced with the loss of Cartesian mind-body dualism doesn't suggest to me that the questioning of these fundamental ideas is a bad thing. One will inevitably face trauma, for lack of a better word, when one is confronted with new information that conflicts with one's

conception of the world or the self. I don't think that Dick was writing existential crises to suggest that the abandonment of humanism is an inherently bad idea. This existentialism that results from the wavering of a character's worldview is representative of Dick's criticism of the deeply entrenched humanist philosophy and anthropocentrism in our understanding of the world. When Deckard has a strange revelation in the middle of a desert after killing the last of the escaped androids, it isn't suggested that his crisis is unjustified or damaging. In fact, it seems that by the novel's conclusion, Deckard has come to a place of empathy with the technological life that surrounds him that he didn't have at the opening, telling his wife Iran, "But it doesn't matter. The electric things have their lives, too. Paltry as those lives are" (Dick 222). When Iran offers to program his mood organ to "long deserved peace," she finds that Deckard falls asleep with that peace without the help of the technological device. Despite Deckard's reckoning with his own view of the world and his role in it, the end isn't hopeless and negative. The existentialism Deckard contends with is evidence of his perspective shifting in light of the new experiences he gains throughout the novel.

Due in part to this change in perspective, I don't think that *Do Androids Dream of Electric Sheep?* is an argument against the development of androids. It does, however, offer a critique similar to that of Donna Haraway in "A Cyborg Manifesto," that the cyborg is "the illegitimate offspring of militarism and patriarchal capitalism" (227). Dick's critique of androids in his novel is not that they exist, but a critique of the *reasons* that they exist. In a literal act of playing God, people create the androids in man's image by purposefully giving them vivid memories of an imagined past and the potential to develop relationships and grow emotionally. The creation of these specific androids is

anthropocentric narcissism at its peak. But despite their purposeful mimicry of human consciousness, they are subsequently forced into menial labor for the sake of cost-effectiveness, colonialism, and leisure of their human counterparts. The reach beyond the uncanny valley between the human and the Other was solely motivated by profit and the colonization of a planet uninhabitable to humans. The center of Dick's critique here is of liberal humanism and late capitalism, not the presence of artificial life as a whole.

II. "Rachel"

Haraway envisioned a future in which the hierarchies of gender, race, and class are rendered impotent by cyborg subjects and identities, but this future doesn't exist in Dick's novel or Larissa Lai's short story "Rachel." Although Lai gives Rachel¹ a narrative voice that she doesn't have elsewhere, the hierarchies regurgitated in this fictional world prevent Rachel from living out Haraway's vision of a cyborg future, in which "the relationships for forming wholes from parts, including those of polarity and hierarchical domination, are at issue" (227). Instead, Rachel's experience of android subjectivity, so to speak, is anything but devoid of binaries and hierarchies. Her identity as an Asian android woman subjects her to unique, polarizing stereotypes: of the demure and submissive lotus flower (or Stepford Wife) and the aggressive and hypersexual dragon lady (or fembot). Even though Rachel doesn't ascribe much importance to her race or gender, they continue to impact her embodied existence. Lai offers complex

¹ The spelling of this character's name differs between Dick's novel ("Rachael") and Lai's story ("Rachel"). I will be using the spelling that applies to the character as she appears in these respective works.

subjectivity for an android in an oppressive system as well as a critique of popular science fiction's hesitancy to do the same.

In both Dick's novel and Ridley Scott's film adaptation *Blade Runner*, android subjectivity is not explored and the audience observes them through strictly human perspectives. Dick's novel is narrated in third-person perspective, but all the reader learns about androids is what human focal characters like Deckard and Isadore know or experience, which is tainted by misunderstandings and prejudice. In translating the premise of the novel to film, Scott's *Blade Runner* depicts androids (called "replicants" in the film) as visibly less human than are Dick's androids. For instance, while Pris dies a human death at the end of Deckard's gun in Dick's novel, the Pris of *Blade Runner* is seen thrashing unnaturally and mechanically after being shot by Deckard multiple times. The replicants in the film also have a tell-tale amber glow in their eyes, a seemingly non-diegetic quality that is solely included for the benefit of the audience, as it is never addressed within the film. Although both of these works are certainly focused on compromising the hard line drawn between the human and the non-human, the androids remain distant from the audience due to aesthetic and narrative choices.

Nearly 40 years after the publication of Dick's novel, Larissa Lai gave Dick and Scott's android a voice and direct connection to the audience in the short story "Rachel." This short story is based on Scott's film, which is relevant because Rachel's character differs significantly between Dick's novel and its film adaptation. In Dick's novel, Rachael is a far less sympathetic character than the Rachel of Lai's story or Scott's film. Rachael feigns ignorance of her android identity until Deckard tests her, when she had been having sex with bounty hunters to dissuade them from killing androids long before

she met Deckard. He believes that this manipulative use of Rachael's sexuality was orchestrated by her creator, Eldon Rosen, saying, "Rachael, the prototype, used by the manufacturer to protect the others" (Dick 203). Until Deckard, Rachael claims to be 100% successful at ending the careers of bounty hunters. However, after having sex with Rachael, Deckard goes on to kill the final 3 androids, one of whom is an exact copy of Rachael's model. In fury, Rachael pushes Deckard's newly purchased Nubian goat from the roof of his apartment complex. She weaponizes her sexuality in attainment of a duplicitous goal and is quite willing to use violence to that end as well, which makes it difficult to empathize with her. In fact, it's difficult to empathize with *any* of the women in Dick's story, who are either portrayed as frigid or ignorant. In *Blade Runner*, however, Rachel is genuinely traumatized upon learning that she is an android with implanted memories, which were donated by the manufacturer's niece. She finds Deckard and shows him a photo of her and her mother to affirm that she is a human, and he rattles off a few of her deepest memories, which confirms that she is an android. A memorable scene depicts Rachel taking her hair down and playing the piano, saying that she remembers taking piano lessons, but is unsure if she actually took those lessons or if her ability to play the piano derives from someone else's implanted memories. She and Deckard (who is unmarried in this movie) ultimately end up on the run together by the end of the film. The function of this character—and indeed, the basic traits of the character—changes drastically in their respective narratives. The Rachael of Dick's novel manipulates bounty hunters to advance the capitalist interests of her manufacturer while the Rachel of Scott's film and Lai's story is passive and introspective.

Lai's story begins with Rachel and Deckard's first encounter, although Deckard is only ever referred to as "the policeman," stripping him of his individuality in the same way Rachel is stripped of hers in Dick's novel. Rachel's body is not her own. Other androids are manufactured using the same body, one of which Deckard must kill. Rachel's memories are not her own either. "Whose memories are these?" she asks herself in Lai's story (112). In the novel, the memories seem to have been generated from nothing, but in the film they were donated to her by a human who had experienced them first. She is composed of parts that aren't unique to her and is viewed as a commodity or menace more than what she is: a person. By appropriating Dick's well-developed protagonist and reducing him to simply "the policeman," Lai defines him strictly by the role he plays in Rachel's life, which serves to balance the scales between the two texts. The policeman uses the Voigt-Kampff test on Rachel, who is certain that she will not fail because she has no reason to believe that she is not a person. "I know who I am," she thinks, a tragic piece of dramatic irony (Lai 91). She has intelligent thought, rationality, subjectivity, and emotion. However, the policeman, with his "nasty light" and uncomfortable scrutiny, deems that Rachel isn't, in fact, human (Lai 91). This revelation is traumatic, stripping her of any sense of stability she felt in her own subjectivity. She sees through mass-produced eyes and thinks using the scaffolding of someone else's memories.

The societal refusal of Rachel's subjectivity grows only stronger when considering the intersection of her android and female identities. In an analysis of artificial women in film, Escudero Pérez writes that "whenever a robot or AI is assigned a female gender it is for sexual purposes" (328). Male (or masculine androgyny) is the

default, and the only reason to make a female-coded machine is to craft a sexual object. They are programmed to be subservient or hypersexual, designed to meet the desires of any fetishist. The voyeuristic observation and objectification that the androids are put through in the parent texts are reflected on from the perspective of the object in Lai's story. She talks about the policeman "scrutinizing" her (91). She is just within earshot when the policeman asks her father, "How can it not know what it is?" (93). For her pronouns to shift from "she" to "it" reveals the objectification of the android. She is suddenly perceived as a machine instead of a conscious person. This adds to the objectification she already experiences as a woman, evidenced in the scene in both Scott's film and Lai's story that depicts Deckard's violent response to Rachel's discomfort following his sexual advances. He pushes her against a wall and demands that she ask him to kiss her. Rachel says, "When the policeman tells me what he wants, I can only reflect his desire back to him. Is that because I am eighteen and inexperienced or because I am nothing more than a wind-up doll? He treats me like a wind-up doll" (Lai 117). The intersection of Rachel's identity as an android, which is seen as a literal mechanized object, and her identity as a woman, which is sexually objectified, seems to result in Deckard's ability to treat her this way without guilt or second thought. The scene in Scott's film is polarizing, as some interpret it as romantic while others find it troubling. Reading the same interaction from Rachel's perspective in Lai's story makes it easier for the audience to skew toward the latter interpretation.

In Lai's story, Rachel is half white and half Asian, a choice that illuminates the alarming similarities in the ways that Asian women and android women are fetishized. Escudero Pérez writes that artificial women are generally sorted into one of two polarized

categories in fiction: “the promiscuous, dangerous and aggressive doll, whose hypersexualization helped her accomplish deadly missions ... at the other end of the spectrum, the Victorian *angel in the house* figure: a perfectly obedient, subjugated housewife” (326). Consider Dick’s interpretation of Rachel in *Do Androids Dream of Electric Sheep?* as fitting into the first category: her hypersexuality is used to manipulate bounty hunters and she brutally kills Deckard’s beloved goat. On the other end of the spectrum are characters like the Stepford wives featured in Ira Levin’s novel of the same name. The Stepford wives in particular are designed from the ground up to be a man’s perfect spouse, but this trope can be expanded to female androids that can be easily manipulated and serve to please men. In a strikingly similar dichotomy, an American Psychological Association study of the gendered racial microaggressions experienced by Asian American women identifies that “AAW [Asian American women] were stereotyped as both the ‘lotus blossom baby’ (e.g. China doll, geisha girl, and the shy Polynesian beauty) and the ‘dragon lady,’ or prostitutes and devious madams” (Keum et al. 573). Lotus blossom babies are characterized by passivity and innocence while dragon ladies are overtly sexual and insidious. Asian and android women are fetishized using the same binary roles, from a dangerous and promiscuous femme fatale to a naïve subservient. And in a general sense, both of these groups are exotic to white male subjects, which makes them an even more desirable target of objectification. Lai’s interpretation of Rachel as half-Asian reveals the ways in which her passivity and innocence are not only used to fetishize fictional androids, but contemporary Asian women.

There is also an (uncomfortable) focus on immaturity that lends another similarity to the fetishization of these two groups. In Dick's novel, androids only live for 4 years, which means that an android woman in a mature body would remain relatively sheltered and naïve. For instance, when Deckard performs the Voigt-Kampff test on Luba Luft, she asks what a wasp is, to which he answers:

“A stinging bug that flies.”

“Oh, how strange.” Her immense eyes widened with child-like acceptance, as if he had revealed the cardinal mystery of creation.” (Dick 95)

The power that a man receives when he is the filter through which a sexual prospect obtains knowledge or experiences is certainly a factor in the fetishization of these childlike qualities. On a physical level, it is reiterated throughout the novel that Rachael's figure is “childlike” and is routinely identified as a “girl” (Dick 172; 88). This fixation on Rachael's adolescence is troubling because Deckard has sex with her near the conclusion of the novel. Asian women are fetishized in a similar sense, as Patricia Park notes while reflecting upon her interactions with members of an MIT fraternity: “As they deconstructed the female body, they ticked off features like they were taking inventory: Asian women had dark eyes, straight black hair, petite frames, and small hands” (29). Although Dick avoids the topic of race throughout most of his novel, it's notable that Rachael exhibits all four of those physical qualities. By giving Rachel an Asian identity, Lai draws out the ways in which the fetishization of Asian women is dehumanizing, as these nonhuman android characters are subjected to the same polarizing categories. Fetishization necessitates a dehumanization of the object, in the first place. However, Lai also seems to make the case that the androids in this narrative—who were only

accessible through white male subjectivity until Lai gave Rachel a voice —are just as deserving of respect and equality as their Asian counterparts.

Lai also offers a critique of the lack of diverse representation in popular science fiction through one of Rachel's implanted memories. In this memory, Rachel is a young girl entering her school's Halloween costume contest as an "Indian Princess" (Lai 92).

She reminisces:

I brushed my long black hair straight and darkened my skin with cocoa powder mixed with water. I expected to win, since all the other kids wore costumes that were obviously store-bought. I was devastated when the boy in the Darth Vader mask won. It seemed the teachers placed no value whatsoever on creativity and imagination. (Lai 92)

Given the established stereotype of the Indian Princess being used in reference to indigenous Americans, I am assuming that "Indian" is not in reference to the people of India. Dressing up as indigenous Americans is an unfortunate aspect of American culture, from the Boston Tea Party to modern Halloween costumes. The Indian Princess stereotype, however, differs in characterization from the manipulation of the "savage" stereotype that was taken advantage of during the Boston Tea Party. The Indian Princess, much like the demure female android and lotus baby Asian woman, serves to appeal and attend to white men. Consider the popular, largely fictionalized narrative of Pocahontas: a humane princess prevents her barbaric counterparts from killing an English man, who she ultimately falls in love with. Narratives like these, alongside the dehumanization and degradation of indigenous populations, has cultivated a reality in which the majority of indigenous American women experience sexual violence in their lifetime (Rosay). The

creativity that Rachel uses to create this costume only serves to reinforce harmful stereotypes, suggesting that she has internalized racist narratives and imagery.

Notably, though, Rachel's costume loses to a basic Darth Vader costume, which is the core of Lai's critique of popular science fiction and fantasy. It is a statement about how cliché stories starring white men made for white men dominate over any stories featuring people of color. In a study conducted to determine the demographics of science fiction readers, Denise Morales Soto determined that although contemporary science fiction readers are more diverse than ever, publishers continue to create and push content intended for white, male audiences. Morales Soto writes that "there seems to be a disconnect between the readers and the publishers" (12). The narratives that *do* feature people of color tend to perpetuate tired stereotypes and tropes, like the Indian Princess that Rachel dresses up as. The Arthur C. Clarke Award, an award given to UK-based science fiction novels, publishes annual reflections on their submission demographics. Although submissions by female authors increased from 13% in 2007 to 40% in 2020, award judge Stewart Hotson writes that there were more books with "unacceptable racial stereotypes or tropes" submitted than books by authors of color (Hotson). Calling for a diversity of representation simply isn't good enough, as that representation can be used to reinforce detrimental narratives and stereotypes. The novelty and intended diversity that initiated Rachel's construction of her costume lost to a normative, played-out costume because even offensive representations of women of color have trouble breaking through to readers.

Andrea Smith, writing on the startlingly common experience of sexual assault on indigenous American women, notes that "The issues of colonial, race, and gender

oppression cannot be separated” (71). This intersectionality is inherent to every person’s subjectivity and how they experience their embodied lives. Rachel’s racial and gender identity deeply impact the way she is perceived by others. Her existence as an android proves to be yet another subjugated identity that unfortunately furthers the othering she faces due to her race and gender.

The androids as portrayed in Dick’s novel are inspired by a precedent of classism and slave labor, but Lai demonstrates how the persisting hierarchies of gender and race exacerbate the prejudice faced by an android like Rachel. Both authors are dedicated to deconstructing the humanist sentiment that delineates hard distinctions between the superior human and inferior nonhuman. Unlike a human, the androids in these narratives are manufactured, not born. They are, however, composed of organic matter like a human is. The test developed to distinguish humans from androids is rendered inadequate as the androids become exponentially more complex and the humans are driven to apathy and mental illnesses. Both of these factors make the test unable to reliably determine the differences between the humans and the androids. Rachel’s narrative voice, as provided by Lai, expresses the subjectivity and emotion that the android possesses. Jeremy Bentham’s threshold for determining if a being is worthy of dignity and respect is whether the being can suffer. Between the androids’ drive to escape the confines of slavery, Roy Baty’s cry of anguish as his wife dies, and Rachel’s heartbreak upon learning that she is not the human she assumed she was, it is abundantly clear that the androids can, and do, suffer. Despite the overwhelming evidence that androids are worthy of personhood, they are flatly denied civil rights and the traits that define the human are adjusted in response to the evolution of the android. This parallels the hypocrisy of the

central figures in humanist philosophy, as they generally considered various groups of people “less human” than white, male, educated Europeans. Dick and Lai both argue that the idea that some people are “less human” than others not only poses a threat to hypothetical androids in an imagined future; it poses a threat to groups and identities that exist today.

Chapter 2: Prostheses

A posthuman subject need not be a fictional android composed of entirely artificial materials. The use of prosthetics is another feature of the posthuman present and the imagined future. For much of the 19th century, anthropologists and naturalists defined the human by their propensity for using tools (Hayles 34). However, Kenneth Oakley amended this statement in 1949 after animals were observed using tools, describing man as a tool-*maker* rather than a tool-user. N. Katherine Hayles writes of Oakley's work, "Significantly, he imagined the tool to be at once 'detachable' and an 'extension,' separate from yet partaking of the hand" (34). In many cases, tools function as prosthetics, inorganic materials created to extend human capabilities in some way. In this context, think of the prosthetic as replacing a body part that only exists as a hypothetical, or mimicking the body part of another creature. Rudimentary stone tools created by early humans, for instance, only succeed in scraping the meat off a bone if it is wielded by a person. Likewise, humans didn't (and still don't) possess the physiology needed to clean a bone without these stone tools. At the very least, they couldn't have accomplished their goal as efficiently without using these tools as a prosthetic. Hayles writes that the critical posthumanist "thinks of the body as the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born" (3). The drive of the human to supersede bodily limitations using inorganic compounds is arguably a central component of who we are as a species. I would posit that, if anything, the human is defined by its desire to transcend human limitations. This is why Hayles imagines the posthuman not as an aspirational physical state, but as a key component of our past, present, and future.

The term “prosthetic” is primarily associated with the prosthetic limbs that can help those with disabilities in their daily lives, which lends a well-deserved positive attribution to the term. Events like the Paralympics have brought awareness to the use of prosthetics to not just get by, but to thrive. The decreasing cost of 3-D printers and plastic filament provides more affordable access to rudimentary, but lightweight prosthetic arms and hands, which is particularly useful for growing children. Even devices as commonplace as vision correcting eyeglasses are prosthetics. Glasses can also add unique value that human physiology alone is incapable of, like the UV light protection offered by sunglasses or protection from debris offered by safety glasses. Similarly, prosthetic devices designed for those with limb deficiencies can also strive beyond simply recreating a human limb. As depicted in The Guardian segment *Beyond Bionics: How the Future of Prosthetics is Redefining Humanity*, a drummer named Jason Barnes lost his right arm in an accident and upgraded from duct-taping a drumstick to his residual limb to using a prosthetic that holds *two* drumsticks. They can even beat at different speeds, allowing him to create polyrhythms that he could not have achieved with two hands (The Guardian). Through the use of a prosthetic, Barnes didn’t just regain his ability to play music; he attained abilities that he was not capable of prior to his accident.

Using prosthetics to push beyond the realm of human physiology isn’t a phenomenon that is limited to those with physical disabilities. For instance, Temple Grandin, an autism and animal rights activist, has reflected on the ways that technology has behaved as a prosthesis in her work. Much of her work addresses the creation of more humane ways to care for (and slaughter) livestock. Early in her career, she redesigned a

crude system used for the kosher slaughter of cattle in a way that would support and comfort the animal in its final moments. Grandin writes:

Through the machine, I reached out and held the animal. When I held his head in the yoke, I imagined placing my hands on his forehead and under his chin and gently easing him into position. Body boundaries seemed to disappear... The parts of the apparatus that held the animal felt as if they were an extension of my own body, similar to the phantom limb effect. (qtd. in Wolfe 135)

On the surface, the thought of using a metallic slaughter device as an act of love is hard to understand. But Grandin sees the device as an opportunity to soothe the animal in a way that was not possible without the aid of this technology and accepts the machine as an extension of her body.

Likewise, robots like da Vinci Systems allow surgeons to perform minimally invasive surgeries that were once inconceivable. This technology allows a surgeon to sit in the operating room with their face and arms inside of a machine, which has handles to control tiny, robotic instruments and foot controls to magnify and focus the 3-D cameras that allow the surgeon to have vision with depth perception (“How”). A video, which has since circulated on Twitter as a meme, shows the little manipulator and scissors of the da Vinci surgical system gingerly cutting, peeling, and stitching the skin of a grape. Professor of surgery Scott Eggener, MD says that this surgical method results in less invasive surgeries, less blood loss, and less need for pain medication (Eggener). A decade ago, this technology seemed like it leapt from a work of science fiction. Now, there are nearly 6,000 of these machines in hospitals worldwide, and 8.5 million surgical procedures have been conducted using da Vinci systems (Guthart). Like traditional

surgery, a trained surgeon conducts the operation. The only difference is that they use precise prosthetic hands and eyes to do so.

But what happens when the use of prosthetics has negative implications? Despite the countless ways that prosthetics can change lives for the better, concern about the possibility of prosthetics as a nefarious force has gripped science fiction for hundreds of years, often through the depiction of cyborgs. A cyborg (short for “cybernetic organism”) is an organic being that is augmented with technology or prosthetics. The concept of a human whose body parts have been replaced by cybernetic ones has long been used as a warning against manipulative uses of technology. Jason W. Ellis writes that the monstrosity of film and literary cyborgs derives from “a perceived threat to humanity by technology through its transformation, control, or infiltration” (Ellis). *Doctor Who*’s Cybermen and the eponymous *RoboCop* exemplify the dangers of private corporations attempting to develop the ideal human being, with these cyborgs being weaponized and utilized as tools. A concern with the social issues surrounding the use of prosthetics can be traced back much earlier to Edgar Allan Poe’s 1839 short story “The Man That Was Used Up,” which explores the all-consuming effects of war through the depiction of a general whose body consists of various objects that must be assembled by a servant. Indeed, 19th century American wars are largely responsible for the creation of the modern prosthetics industry, with the Civil War leaving over 70,000 veterans with lost limbs (MacRae). Although the imagery of this general soliloquizing while being assembled is rather disturbing, it’s clear that Poe’s story asserts that war is responsible for his strange existence; it used him up, as the title suggests. As prosthetics increase in popularity and complexity, the age-old concerns about the use of prosthetics to perpetuate inequality,

mitigate unnecessary conflict, or manipulate human bodies for covert purposes have persisted within fictional representations. The short stories that appear in this chapter address the finitude that technology shares with organic creatures and the abuse of prosthetic technology to force assimilation or generate profit for corporations.

Malka Older's short story "The Black Box: These Memories are Made to Last Forever" is an exploration of the broad implications of a small, fallible technological prosthetic becoming a societal norm. The Lifebrarian is a device installed in the brain that records every waking moment of the user's life, which allows memories to be recalled in life or after the user's death. It is intended to be used as both a memory device for the living user and to eulogize the user's memories after death. The story follows Sumi from infancy to death. Sumi has a Lifebrarian installed in her brain as a toddler. The presence of this device forces her to contend with her privacy and mortality throughout her life, and her relationship with her Lifebrarian shifts over time. Ultimately, her mid-life investment in the new "Black Box" protection upgrade proves fruitless by the story's conclusion. The files stored inside the device are corrupted following a devastating earthquake.

"Lingua Franca" by Carole McDonnell shows how technological prosthesis, in conjunction with imperialism, can be weaponized to erase cultures and reinforce the hegemonic language and body norms of a colonizer. McDonnell's story is set on an unnamed planet inhabited by an entirely deaf population. When humans from Earth establish trade on the planet, they begin fitting the native population with implants that allow them to hear and speak. However, these new "abilities" prove to be unsuitable for their native environment and stifling to their religious and cultural traditions.

“Jon” by George Saunders features a group of teenagers who are permanently housed in a marketing facility beginning in early childhood. This alone would give an adolescent a skewed sense of reality, but these teenagers have also lived their entire lives with an advertisement chip in their brains, which heavily influences the referents used in their thoughts and language. When Jon’s girlfriend Carolyn becomes pregnant and decides to leave the facility, he is forced to decide whether he wants to continue living the life of luxury he has always known or opt to leave and remove the advertisement chip, which risks permanently damaging his brain.

These stories invoke distinct dystopian visions: Older depicts a near-future that parallels many of the ethical dilemmas that arise concerning Internet usage among children in our contemporary world, McDonnell describes the vestiges of Earthly colonialism and ableism extending far beyond our home planet, and Saunders creates a hyper-consumerist, sanitized hellscape. The stories posit a range of concerns about the potential use of technological prosthetics: Older is concerned with privacy and fallibility, McDonnell with cultural erasure and the increasing invasion of imperialism, and Saunders with the effects of capitalism on the way these prosthetics are utilized. They all, however, explore the ways that these miniscule technological apparatuses are capable of dramatically changing one’s subjectivity, which suggests that the mind does not, in fact, transcend the physical form it exists in. It is of critical importance, as these stories imply, that technological prosthesis be used ethically.

I. “The Black Box”

“The Black Box” opens with Sumi’s parents arguing about the effects of installing a Lifebrarian in their daughter’s one-year-old brain, which mimics contemporary debates

about the ethics of exposing young children to the Internet. Liliana, Sumi's mother, expresses concerns about the age of her young daughter, especially since the installation of a Lifebrarian is an elective surgery. Liliana's claim that the Lifebrarian could "affect the way her brain evolves" is not dissimilar to the modern discourse surrounding child Internet usage and the instant information access we have at our fingertips. Pew Research Center found that seven-in-ten parents think that the potential harm of children under 11 owning smartphones outweighs the potential benefits (Auxier et al). An anonymous 49-year-old father responded, "Technology has taught kids instant gratification and no patience" (Auxier et al). This parallels the concerns of Liliana in Older's story, who argues to her husband, "Imagine if you never had to remember anything" (Older). The presence of a Lifebrarian is a more pervasive form of instant gratification than even a cell phone, as a child with a Lifebrarian could recall information learned in a classroom instantly with photographic accuracy. Cheating on a test would no longer involve a cell phone sitting subtly on a student's lap; it would be invisible.

However, much like the inevitability of exposing young children to advanced technology, the Lifebrarian becomes ubiquitous despite these criticisms, in part because it allows children to remain competitive with their peers. Sumi's father, Hideyoshi, seems to represent this angle of the debate: "Hideyoshi didn't feel as strongly about it. A lot of people were having it done for their kids at that point" (Older). The potential risks and ethical dilemmas are minimized in his mind because the procedure has become so common. Similarly, Pew's study on parents' use of the Internet found that 83% of parents share information about their children online, with 35% referencing that they choose to do this because other parents do (Auxier et al). Just as connectedness with family and

friends justifies sharing information about children online, Liliana's concerns about the Lifebrarian are mitigated by the perceived positive outcomes of the surgery. Hideyoshi's parents are even paying for the surgery because it was seen as "something you did for your kids, to arm them with the best bodyware for a highly competitive future" (Older). If a child does not have a Lifebrarian, they will struggle to attain the productivity and success of a peer with a photographic memory. The popularity of the Lifebrarian puts children who don't have one at a stark disadvantage.

Despite the possibility of hindering Sumi's future by not outfitting her with a Lifebrarian, one-year-old Sumi is unable to consent to this operation, which parallels the real ethical issues that go along with sharing photos, videos, and information about children on social media. Most modern children have digital footprints before they can speak, some before they're even *born*. Older digital natives may have old, embarrassing content online, but for the most part, they posted it themselves, even if they were too young to understand the implications of it. Young children certainly can't make informed decisions about their presence online, let alone babies or fetuses. But the most troubling aspect of this is that for parents, their child's lack of autonomy or consent doesn't seem to faze them. Pew found that 83% of parents who post information about their children on social media rarely or never worry that their children may someday be upset about the things posted about them on social media (Auxier et al). The phenomenon of sharing a child's personal information online begs the same questions as installing a Lifebrarian does in Older's story. The story prompts the reader to consider uncomfortable questions: does a child's lack of privacy starting at birth affect their sense of self? Does it make them more tolerant of surveillance? Older represents the conflict surrounding the

implications of undermining a child's privacy through Sumi's parents' clash over the Lifebrarian surgery. In fact, this scene represents one of the final moments of Sumi's life that wouldn't be permanently documented. Older writes that for the final time, "as soon as Sumi's short-lived consciousness of [the memory] melted away, it was gone forever" (Older). The events of the rest of her narrative—and indeed, the rest of her life—will be surveilled and archived without her consent and without any in-text suggestion that the device can be removed.

Sumi's attitude regarding her own privacy shifts over the course of her life, but the presence and function of the Lifebrarian is obstinate in the face of her changing perspective. When Sumi is 16, she acts out what she refers to as "childish superstition" in an attempt to reason with the Lifebrarian, even though she knows it cannot be reasoned with (Older). When she desperately wants to delete a bad memory, she tries to completely empty her mind, and "sometimes she would even try to make a deal with the Lifebrarian, as if it were a person. As if it were God" (Older). A deity may be the only language we have to describe how the presence of a Lifebrarian would affect a person. God (in the Abrahamic sense) is omnipotent, and although the Lifebrarian cannot access others' points of view, it's "all-seeing" in terms of the user's subjectivity. Sumi's anxiety surrounding the contents of her Lifebrarian in young age shifts as she reaches her forties. She decides while on a business trip to get the "Black Box" protective casing installed around her Lifebrarian, which would make her recall function much slower but would work to preserve her memories in the event of a disaster. Sumi reflects, "She will know in that second of consciousness before she goes that someone will be able to see exactly what happened to her" (Older). This choice trades Sumi's total memory recall for the

security of knowing that her loved ones would know what happened to her before death, which is a change in perspective that makes sense with age. She not only has to consider her mortality in a different way, but she also must consider the family she would leave behind.

In a twist of fate, Sumi's adolescent deal-making with the Lifebrarian comes to fruition in the story's conclusion: the hardware of her Lifebrarian is corrupted before it can ever be accessed. Although Older's story doesn't directly offer an exploitative ulterior motive behind the implementation of the Lifebrarian as a technological prosthetic, it does offer important questions about privacy, consent, and the reliability of technology. The last point in particular is something that isn't referenced in the other two stories. It goes without saying that technology has vastly different strengths than those of organic beings. It can be intentionally designed to withstand a wide range of environments and perform tasks that humans can't dream of accomplishing. However, like humans, technological devices are fallible. They can become infected with viruses, they can malfunction and glitch, and they can develop or be manufactured with unexpected anomalies. It's easy to romanticize programming and robotics as fields of pure, straightforward logic, of determining the best possible product and recreating it indefinitely with no variability. In many of the works of fiction that appear in this thesis, scientists and programmers are depicted as cold, logical beings who embody the humanist ideal of rationality. But the uncomfortable reality is that there are variables that cannot be avoided. Many can't even be *anticipated*, in spite of complex algorithms and 3-D models. This is what makes stories like Older's so important: fiction forces us to consider the possible outcomes of imminent or imagined advancements in technology.

II. “Lingua Franca”

One possible technological outcome, beyond the passive failure of technology, is the active use of technology as cultural erasure. Carole McDonnell’s short story “Lingua Franca” depicts a planet inhabited by humanoid aliens who have adapted to the noisiness caused by their planet’s dense atmosphere through deafness. When hearing people from Earth settle and begin to buy their natural resources, they enforce use of the English language as well as installing implants that make the Deaf natives hearing, an additional level of colonial invasion that burrows into the actual structure of the mind and how it reacts to its environment. Unlike Older’s story, this narrative depicts a child that consents to the installation of this hearing prosthesis against her mother’s wishes. The protagonist, Mist, is a tradeswoman who is wary of the cultural impact these implants may have, and is horrified when her adolescent daughter, Flowers-in-the-Sun, gets implants without her knowledge.

McDonnell’s “Lingua Franca,” like Lai’s “Rachel,” was published in *So Long Been Dreaming*, a postcolonial sci fi short story anthology. The introduction, written by editor Nalo Hopkinson, a prominent contributor to postcolonial science fiction, contends with the fascination with colonialism within the genre. Hopkinson writes, “Arguably, one of the most familiar memes of science fiction is that of going to foreign countries and colonizing the natives, and as I’ve said elsewhere, for many of us, that’s not a thrilling adventure story; it’s non-fiction, and we are on the wrong side of a strange-looking ship that appears out of nowhere” (Hopkinson 2). Indeed, science fiction broadly romanticizes colonization as exploration, which reflects the doctrines and rationalizations of the West. The experiences of the colonized are anything but fictional, even if they’re not usually

addressed in traditional science fiction narratives. In “Lingua Franca,” McDonnell explores the loss of culture that follows the loss of language, a common occurrence in nonfictional colonization that is underrepresented in science fiction.

From the story’s opening, the colonizer—specifically the English language of the Earth natives—invades the space of the native people and their language, even though spoken English is inefficient in the planet’s environment. Mist stops at a fruit stand and notes, “The name of the fruit was written in the three regional ideographic dialects in addition to the lingua franca of the Federation: the English language. The ‘English’ letters O-R-A-N-G-E took up more space than all the ideographs combined” (McDonnell 346). Not only does this imagery evoke the crowding out of native culture by an invading outsider, but it also hints at the fact that English, and verbal speech in general, is not the most effective mode of communication in this environment. In fact, it is mentioned in passing that the Earthers are working on a way to permanently alter the dense atmosphere of the planet to make communication more comfortable for hearing people. An Earther tells Mist, “Your towns are very loud, you know... Maybe that’s why you people ended up with atrophied eardrums and vocal cords” (365). There are two loaded parts of this statement, one being the use of the word “atrophied” to describe the advantageous adaptation developed by the population of this planet. The other is “you people,” a phrase that implies and reinforces a power imbalance. The sentiment here is that there is something wrong with this population and their environment, and the Earthers will graciously “fix” these problems. A passerby at the beginning of the story says, “Not content with fixing our ‘problem,’ now they say they’re ‘fixing’ our air. As if anything was ever wrong with it” (McDonnell 346). Unlike the deaf population residing in our

world, the inhabitants of this planet are living in a society that is designed not only to accommodate them, but is constructed in celebration of their deafness. Instead of traditional music, their festivals have light shows that people dance in sync with (361). Likewise, instead of yelling for someone's attention, it is custom to flash a light at a person to signal them (358). Their hand gestures have "accents" in the same way that spoken language does (360). Indeed, there is nothing wrong with their air; it causes no issues among the residents of the planet. But the Earthers are more willing to change the atmosphere of an entire planet, which arguably takes more effort, than they are willing to bend to the predominant language of that planet.

The implants are more commonly placed in adolescents and children, which parallels the convention of a foreign language's enforcement in colonial schools. Author and academic Ngũgĩ wa Thiong'o, who was raised in Kenya when it was a British colony, reflected that while his native language connected those in his community, the English he had to learn in school was used to dominate "the mental universe of the colonized" (442). The English language was reinforced as the "civilized" counterpart to their "barbaric" Kenyan languages. There was no future outside of peasantry if one could not master English, which is why Thiong'o credits the peasant class for preserving the wide varieties of languages in Kenya and Africa generally (447). Likewise, in the culture depicted in McDonnell's story, community is of critical importance. Extended families live together on a compound, which totals to 98 people in Mist's family. When all of Mist's young nieces and nephews get implants, they begin communicating in ways that are inaccessible to their deaf family members. Mist reflects that "all they did was mouth-talk among themselves, indulging in 'sounds' which the rest could neither hear nor understand"

(McDonnell 347). Language is, at its core, a social technology. By using a language that excludes their elders, the most knowledgeable and valuable people within their culture are isolated from their children and grandchildren.

Ultimately, Flowers-in-the-Sun, Mist's adolescent daughter, chooses to receive implants for two valid reasons: belonging and economic security. As mentioned, her cousins primarily use mouth-to-ear communication, which isolates her. "Already she is alone," her father Ion says, "even among her cousins" (McDonnell 351). There's an impossible decision to make here; their culture as they know it is on the line due to these implants, but without implants they could lose connection with others in their community entirely. Flowers-in-the-Sun also plans to pursue an inter-caste career in science and trade, which would be hard to achieve without meeting the communication preferences of those she trades with: the Earthers. "I will show the Earth traders that we know how to measure the purity of foods, that we are more than receivers of their tainted money," Flowers-in-the-Sun says, implying an effort to weaponize mouth-to-ear English to prove her people worthy of respect (McDonnell 357). The notion of using the language of the colonizer in this way is contentious. Thiong'o, for instance, stopped publishing his novels in English in favor of the Gikuyu language of Kenya's Kikuyu people. Thiong'o writes, "Language carries culture, and culture carries... the entire body of values by which we come to perceive ourselves and our place in the world" (441). On the other hand, Nalo Hopkinson reflects on Audre Lorde's statement that "the master's tools will never dismantle the master's house," in the introduction of *So Long Been Dreaming*, writing, "In my hands, massa's tools don't dismantle massa's house—and in fact, I don't want to destroy it so much as I want to undertake massive renovations—they build me a house of

my own” (Hopkinson 16). Hopkinson aligns with Flowers-in-the-Sun in this sentiment, as Flowers-in-the-Sun seeks to use the language of the Earthers to enact change and generate upward social mobility for herself and her family.

However, the impact that these implants have on Flowers-in-the-Sun’s ability to interact with her culture implies that Thing’o’s assertion that language carries culture is true. The story concludes with Mist imploring Flowers-in-the-Sun to attend the annual Mother-Infant festival. She begrudgingly agrees, complaining that “It’s very loud ... Everywhere. It hurts my ears. We are a very loud people” (McDonnell 370). The native people are undergoing a procedure that forces them to experience these cultural events from the perspective of an outsider. Flowers-in-the-Sun never considered her people loud until the English language shifts her subjectivity. Participation in these cultural traditions is excruciating for the implanted people, which parallels Thiong’o’s memory of children being cracked with canes if they were heard speaking Gikuyu (438). Although the Earthers aren’t directly inflicting pain upon the native people, the effect is the same: engaging with one’s own culture results in pain. When they arrive at the festival, Mist discovers that she’s not the only parent who is struggling in the wake of their child’s implantation: “In fact, the mothers all seemed lost, forgotten, childless as they stood on the edge of the road, their backs against the high walls of the cliff. Their lost eyes watched dejectedly as their children chattered on in animated mouth-talk with other children” (371). Children are a living representation of the future. If the implanted youth of this community are no longer interested in participating in the practices that construct their culture or fostering connections with those who don’t have implants, then the culture is as good as dead.

The story's treatment of prostheses reflects not only on colonialism, but on disability in contemporary society. The ethics of placing cochlear implants in infants and young children has been a point of contention within and without the Deaf² community for decades. The viral videos of babies hearing the voices of their parents for the first time would have hearing people believe that cochlear implants are a cure for deafness, thus rendering sign language unnecessary. Carol A. Padden writes that "in some hospitals sign language is not compatible with post-operative treatment" (512). After all, the cochlear implant is intended to allow the child to hear, so why would they need to communicate in any other way? Sara Novic, a deaf writer and professor, asserts that sign language is not incompatible with audible speech, and that it's dangerous for hearing parents to have this impression when consenting to their child's surgery. Not all deaf people are eligible for a cochlear implant to begin with, but even those who are eligible face a long, difficult road to acquiring spoken language. The electric impulses produced by the implant may register as sound in the brain, but it certainly doesn't register as language instantaneously. Thus, Novic argues that it is important for deaf children with implants to be raised with ASL as their primary language and framework from which to acquire other languages, like spoken-word English. Novic writes, "A cochlear implant isn't inherently bad, but it isn't inherently good, either; it is a neutral piece of technology, a tool, like a hammer" (Novic). Arguing that an entire type of prosthetic is intrinsically bad is as fallacious as arguing that the entire human species is intrinsically good.

² The National Association of the Deaf affirms Carol Padden and Tom Humphries's statement regarding the difference between deaf and Deaf in the introduction to the 1988 book *Deaf in America: Voices from a Culture*. The lowercase deaf, they write, refers to "the audiological condition of not hearing" while the uppercase Deaf refers to a cultural group who "have inherited their sign language, use it as a primary means of communication among themselves, and hold to a set of beliefs about themselves and their connection to the larger society" (II).

Cochlear implants, like people, respond to and interact with their environment, which greatly impacts their efficacy or their harm. If a child with cochlear implants doesn't respond well to spoken language—or if that child seeks solidarity with deaf peers without implants—the inability to sign poses significant challenges.

In addition to the pragmatic reasons for being wary of the cochlear implant as a cure, some argue that the use of cochlear implants as a replacement for sign language risks a cultural loss in the Deaf community in a way that parallels “Lingua Franca.” By the time implants were being regularly installed in the 1990s, a vibrant Deaf culture was established, spearheading the idea that deafness was not a disability, but a difference. A recent short film by Deaf activist Chella Man captures this concept well. It depicts three Deaf people underwater, signing about the strengths that arise from deafness. They say, “We are often told we have lost, we have a loss, we are at a loss. To an extent, this is true. But, through this loss, there is great gain. Perhaps even such a gain that we forget about loss” (Man). After all, these individuals are capable of complex communication while submerged underwater, an ability that only those fluent in sign language can accomplish. Padden writes that throughout the late 20th century, deaf people have “acquired not only a new vocabulary but also a new consciousness, indeed a self-consciousness about themselves and their behaviors” (509). Similarly, Thiong’o argues that Kenyan children should learn and be immersed in their native language as a first language before acquiring others. He writes that with a starting point in his native language, “he can learn other languages and even enjoy the positive humanistic, democratic and revolutionary elements in other people’s languages and cultures without any complexes about his own language, his own self, his environment” (452). This notion is quite similar to that of Novic, who

argues that deaf children should learn ASL as a first language even if they have implants. As is demonstrated in “Lingua Franca,” language plays a pivotal role in constructing culture, which makes its preservation crucial.

In the case of McDonnell’s short story, learning sign language as a primary language wouldn’t be enough to sustain their culture, as their implants are incompatible with their native environment and traditions. The Earthers have developed and encouraged the use of prosthetics that sacrifice the comfort of the natives to make the colonizer more comfortable in a foreign land. Unlike the precedent of using prosthetics to make an inaccessible society more accessible to those who want it, the deaf inhabitants of the unnamed planet thrive in an environment that makes hearing a disadvantage. What is considered a disability to the foreign Earthers is an evolutionary advantage to the native people. In a sense, McDonnell has constructed an example of a compelling argument against the elimination of disabilities through genetic engineering: we simply don’t know how our habitat may change in hundreds or thousands of years. Genetic diversity is what allows species to appropriately adapt to their environment over time. If that diversity is purposefully limited, valuable cultures are eradicated and the future of the *Homo sapiens* is threatened.

III. “Jon”

In “Jon,” George Saunders speculates, much like McDonnell, that brain implants could cause immense changes in how language is created and internalized. While McDonnell’s narrative approaches the ethics of technological implants used to foster colonialism and ableism, Saunders uses brain implants to offer a similar conjecture about how such a device could be used to drive consumerism. His characters think and speak in

a vastly different way to that of the reader, and the eponymous protagonist comes to recognize his skewed priorities and his lack of embodied, non-commodified experiences by the novel's conclusion.

Saunders critiques consumerism through the depiction of a marketing facility that purchases infants from the many impoverished parents in America, implants data chips (“gargadisks”) that contain millions of commercials in their brains, and employs the children as product testers. These children never leave the confines of their facility but are made into celebrities nonetheless, with outside children collecting their images on trading cards and gathering outside in hopes of catching a glimpse of any one of them. When Jon's partner Carolyn becomes pregnant, she becomes determined to leave the facility. The first child that was born in the facility, Baby Amber, mysteriously and suddenly dies, which sparks Carolyn's desire to find a more hospitable and independent environment to raise her baby in. Leaving the facility requires the removal of the gargadisk. A significant side effect to this surgery is a loss of language that is typically temporary, but could lead to permanent damage. Jon is deeply anxious about this prospect, as he has learned that his mind is the only valuable part of his body. His mind, in partnership with the gargadisk, is the most important part of his work analyzing products and writing feedback. The unchanging environment of the marketing facility also serves to deprive the senses of those that inhabit it, thus encouraging the favoritism of the mind over the body. Jon ultimately realizes that his embodied, sensory experiences outside of the facility with Carolyn are far more vivid and rewarding than the detached, cerebral monotony he was used to, which is what drives him to abandon the only life and meaning he knows.

Saunders specifically satirizes the role that marketing and advertising plays in American culture through the use of advertisements as referents. Consider the Superbowl, which is consistently the most watched broadcast in America year after year. The advertisements for the game are a cultural touchstone in-and-of themselves, with a National Retail Federation study reporting that 17.7% of Superbowl viewers say that the commercials are the most important part of the Superbowl experience (“An Estimated”). This represents tens of millions of people tuning into a 4-hour broadcast primarily to consume advertisements. Given these statistics, in “Jon,” Coordinator Slippen is validated in his assertion that commercials are “an unforgettable testimony to who we are as a nation” (Saunders). Commercials give Americans shared experiences. Superbowl commercials in particular can spark conversations with near strangers around office water fountains. They provide the means to convey meaning in a way that is virtually guaranteed to be understood. Inherently, having these shared understandings of phrases or images is a good thing. It makes communication and connection easier. However, it’s impossible to ignore the fact that commercials are specifically designed to sell products and manipulate human emotions to make a company memorable. There is a monetary motive in creating content that people reference in their daily lives, as it creates strong associations with products that aren’t possible simply by seeing it in a grocery store. The gargadisk in the story “Jon,” like most prosthetics, isn't inherently a bad piece of technology. Having a database stored in one's head could be an incredibly useful tool in a wide variety of ways. Utilizing this technology with endless potential to store thousands of advertisements in the minds of marketing guinea pigs is what makes this technological future so disconcerting.

Like McDonnell, Saunders is also concerned with how prosthetic devices can impact language, particularly on the level of semiotics. Given that the teenagers in this facility were implanted with the gargadisks at a formative age and confined within the walls of the facility, the only referents they can use to create meaning come from the advertisements stored inside of their brains. Jon's narration in this story is surreal and often amusing in this sense: his recollection of events is peppered with similes involving coded advertisements. For instance, Jon's description of a pensive moment between himself and Carolyn involves a comparison to "Colonel Sanders and wife at LI 87345, where he is in jail for refusing to give up the recipe for KFC Haitian MiniBreasts" (Saunders). This narration only emphasizes how monumental it is to lose these referents upon the removal of the gargadisk. One man, a year after his chip was removed, tells Jon and Carolyn, "There are, if you will, places where things used to be when I went looking for them, brainwise, but now, when I go there, nothing is there, it is like I have the shelving but not the cans of corn, if you get my drift" (Saunders). The signifiers that give form to language remain when the advertising chip is removed because speech is still acquired independently in the brain. Those who undergo the procedure speak in nonsensical sentence fragments, which indicates that the actual sounds that constitute words remain in the brain. But the only signifieds that can be accessed by these people are housed in the gargadisk. Once those are gone, they have no way to make meaning until they gain new referents. Jon seems to be aware of this before ever meeting people who have experienced this phenomenon. When Carolyn hints at leaving the facility, Jon expresses his concerns about how he will convey his feelings for her once their gargadisks are removed. He says,

If I want to say to Carolyn, Carolyn, LI 34451, check it out, that is how I feel about you—well, then, I want to say it! I want to possess all the articulate I can, because otherwise... I will turn to her and say, Honey, uh, honey, there is a certain feeling but I cannot name it and cannot cite a precedent-type feeling, but trust me, dearest, wow, do I ever feel it for you, right now. (Saunders)

Conveying meaning, it seems, is simpler with a gargadisk than without. With a standardized code, Carolyn can access the exact same piece of media that Jon is using to build a metaphor. Without this shared base of understanding, they would have to reconstruct the meaning of language from a clean slate.

Jon has two names in this story—Jon and Randy—that respectively represent his authentic, embodied identity and his disembodied, cerebral role in the marketing facility. Early in the story, it is established that Carolyn refers to Jon as such, but the Coordinators of the facility call him Randy. Jon explains, “Because by the way my name is really Jon. Randy is just what my mother put on the form the day I was Accepted, although to tell the truth I do not know why” (Saunders). It soon becomes clear that the marketing facility changed his name, a symbolic redirection of his supposed fate. When he considers leaving the facility, the coordinators show him footage taken of his mother when she sold him to the facility to dissuade him from entering the impoverished world. Coordinator Delacourt tells Jon, “So much in us is hardwired! You cannot fight fate without some significant help from an intervening entity, such as us, such as our resources, which we have poured into you in good faith all these years” (Saunders). The marketing facility ultimately views the prospect of Jon leaving as a sunk cost and waste of resources. The facility values Jon for his intellectual work in conjunction with the gargadisk, which

mitigates the money it costs to feed, house, and clothe the body that is useless to them. Additionally, the implication that poverty is hardwired into Jon at a fundamental level epitomizes social Darwinism, and Delacourt articulates this when he says, “You are a prince, we have made you a prince. Please do not descend back into the mud” (Saunders). The Coordinators seem to believe that they are doing philanthropic work, valiantly defying the harsh competition inherent to society. Interestingly, it is never explained how Jon knows his name is Jon, as he is an infant in the video of his mother speaking to the marketing facility. His knowledge of his birth name could be an indication that his identity is, somehow, “hardwired” in the way that Delacourt suggests. Alternatively, his identity as Jon could have been constructed by his own subjective experiences, meaning that he gave himself the name Jon in order to differentiate his authentic self from his role in the marketing facility. When he wavers between leaving with Carolyn and his unborn child and staying, the Coordinators regularly call him both Jon and Randy: “Jon, Randy, whoever;” “Randy, Jon, whatever you are calling yourself these days” (Saunders). When they try to convince him to stay, they repeat the name Randy throughout their pleas. It seems that Jon refers to his embodied, worldly experiences while Randy is the disembodied mind that labors for the marketing facility.

Jon’s pivotal revelation comes the first time he is exposed to the outside world, which widens his perspective of his own identity and his fear of losing language. The sentimental Coordinator Slippen covertly organizes a rendezvous between Jon and post-gargadisk-removal Carolyn, which necessitates removing Jon from the only environment he has ever known. Jon describes the feeling of being outside as “powerful” and lays on his stomach studying the details of the flowers and blades of grass that he has never

experienced with all of his senses (Saunders). Jon is so moved by this fleeting moment that he says, “If I live one million years I will never forget all the beautiful things I saw and experienced in that kickass outside yard” (Saunders). Prior to this, Jon’s perspective of the world was limited to the events inside the walls of the marketing facility and the database of advertisements in his head. Given the plain, unchanging environment he resides in and being solely valued for his intelligence and productivity, Jon naturally privileges his brain over his body. For his entire life, his brain has been the only part of his body that has worth and provides meaning and context to his experiences. On the other hand, his embodied observation of the grass and flowers, which he was only familiar with as images supplied by the gargadisk, makes his implanted, commercial experiences seem dulled in comparison. And when he lays eyes on Carolyn for the first time, his first thoughts critiquing her lack of makeup and hair products reflect the superficiality that has been fed to him throughout his lifetime. These thoughts represent Jon’s identity as Randy, the carefully curated marketing asset. Carolyn primarily speaks in jumbled chunks of commercials, but ultimately says Jon’s name: “Not my name of Randy but my real name of Jon” (Saunders). He remarks that despite the hole in Carolyn’s neck from her surgery and her plain appearance, “still she looked so pretty, it was like someone had put a light inside her and switched it on” (Saunders). He sees beyond the surface-level of her appearance, sensing the fulfillment and joy that have been worth Carolyn’s loss of language and sheltered life. He suddenly understands that his identity as Jon is embodied in a way that Randy can never be. Randy was reduced to a tool in a corporate arsenal, defined by his prosthesis, but was complacent for years due to his hedonism and fear of the outside world. On the contrary, the name Jon carries a sense

of authenticity that Randy doesn't, which parallels Jon's growth from materialism to sincerity.

Jon ultimately chooses to remove his gargadisk to join Carolyn and their unborn child in the world beyond the marketing facility, despite his fear of losing the content that gives language meaning. He hopes that he and Carolyn will someday be able to look at the stars and the moon without the need to compare them to an advertisement. Jon says, "In terms of what we will think of, I do not know ... but to tell the truth I am curious, I think I am ready to try" (Saunders). Jon understands that his current subjectivity is extremely limited and optimized for corporate interests. After his first in-depth sensory experience, Jon is then able to dismantle the hierarchy that favors his mind over his body. This favoritism was so powerful that for most of the narrative, he was willing to abandon his girlfriend and unborn child to preserve the integrity of his cognition. Saunders' deconstruction of the mind-body dualism communicates the posthuman sentiment that embodiment deeply influences the mind.

IV. Conclusion

One of the shared ways that these three stories emphasize the exploitation of technological prosthetics is through the physical manipulation of children. Children are one of the least controversial groups of people to defend. Consider the cliché "Save the Children" slogans attributed to various social and political movements. Children are innocent and defenseless, which makes them easily manipulated and exploited. In "The Black Box," this is invoked through the normalization of performing invasive, elective surgery on children who are far too young to understand or consent to it. "Lingua Franca" is told through the perspective of a mother who is ferociously protective of her teenage

daughter but is unable to sway her daughter's decision to be implanted. "Jon" is unique in that the parents of the children in the facility are absent from the story. The closest to a father figure that Jon and Carolyn have is Coordinator Slippen, the man who exposes Jon to the outside world and whom Jon calls "the father I never had" (Saunders). The absence of these parental figures is the disturbing aspect of this story: these parents were so financially drained that they sold their children to a marketing facility to be operated on and employed from a tender age. These stories could be advocating for parents to remain well-informed about the technology their children have access to, and this is certainly a relevant message. That being said, the parents in these stories were largely powerless against the larger forces that brought about the use of these prosthetics in the first place. The parents in Older's story are motivated by competition and conformity, the mother of McDonnell's story has no input in her daughter's capitulation to the forces of colonialism, and the parents of Saunders's story are in such dire economic conditions that they are willing to sell their child to give them a better life. The hierarchical divides and hegemony lurking below the surface are the things the reader should be aware of.

Despite the ethically compromised uses of technological prosthetics in these narratives, it's important to remember that, like many depictions of cyborgs in science fiction, the technology isn't the enemy, but the intent behind its use is. In the case of "The Black Box," however, it isn't implied that the Lifebrarian is being used in harmful ways. Certainly one can use one's imagination to come up with ways that this technology can be exploited, particularly in terms of archives and what is done with the information stored in the Lifebrarian after the death of the owner. The end of the story notes that a 10-year anniversary of the catastrophic earthquake that killed Sumi featured footage recovered

from bodies in the wreckage. This is certainly a more invasive form of the already uncomfortable details featured in memorials and museums: final phone calls, bloodied t-shirts. However, the problematic aspect of this story doesn't involve manipulation like the other two stories. Instead, it's more about the urge to implement seemingly useful technological developments without considering the possible impacts or flaws it could have. The device in "The Black Box" simply has to be *present* to spark ethical dilemmas and existential crises, it doesn't have to do anything outright nefarious. The ethics of opting into elective surgery for a person who cannot consent is an issue in and of itself. But when that elective surgery implants a device that is intended to record every waking moment of one's life, it is particularly important for the recipient to consent or at least have the option to remove it later in life. In "Lingua Franca," although Flowers-in-the-Sun consents to her surgery, she is ultimately presented with limited choices. She is intending to enter trade, which involves communication with a group of people who are unwilling to bend to her cultural norms or language. This is a notion that is familiar to many groups of people who have been subjected to colonialism. It also evokes the lengths that deaf people will go to in order to accommodate mouth-to-ear language, including lip-reading or cochlear implants. The availability of technology like that seen in "Lingua Franca" could be an incredible asset to many people outside of the circumstances that it is used in. Likewise, the mental databases depicted in "Jon" could have been utilized in any number of ways. Instead, it is wasted on creating living, breathing advertisements and product professionals. The technology is presumably invented and patented by this marketing company, so it is unlikely to be used for

anything else. The conflict in these stories lies not in the technology itself. The conflict lies in their use without consent or their use for exploitative ends.

Chapter 3: Body Swapping

In science fiction television ranging from *Star Trek* to *Futurama*, body swapping is used as a single-episode gag that is easily reversed without long-term consequences or significance. It is rarely a central feature of a narrative, and it's even more rare that the implications of this technology are explored in depth. But removing the minds of two people and trading them is a literal depiction of Cartesian dualism, a significant and polarizing philosophical concept that concerns posthumanist and humanist theory alike. The narratives I focus on in this chapter explore the complications that arise when separating the mind and body.

The conception of the mind and body as distinct entities extends back to Plato, who, according to George Dicker, “conceived of the soul as an immaterial entity that outlives the body” (83). Dicker writes that René Descartes updated Plato in his conception of Cartesian dualism (or mind–body dualism) in *Meditations on First Philosophy*, a treatise originally published in 1641. As I discussed in the introduction, mind–body dualism simultaneously laid “the modern philosophical underpinnings for the Judeo-Christian view of human beings,” while employing the logic and reasoning to present it in an acceptable form to scientific minds of the Enlightenment (Dicker 83). In short, *Meditations* is, above all else, motivated by doubt. Descartes sought to discover “what, if anything, is absolutely certain,” which he accomplished by examining all of his most deeply held beliefs (Dicker 10). He realized that all that he thinks he knows is attained through his bodily senses, which he deems unreliable using a few hypotheticals. His sensory experiences could be a realistic dream, and the images and knowledge that inform this dream were provided by God when he was created, pre-installed like the

stock photos on a new computer (Dicker 19; 22). Or, indeed, a demon could be deceiving him about the existence of the entire physical world, including his own body (Dicker 26). Descartes comes to the famous conclusion that his ability to doubt the existence of his own consciousness is proof that he, in fact, *must* have a consciousness with which to doubt: *Cogito, ergo sum*, or I think, therefore I am.

Although Cartesian dualism is considered, in the words of Gilbert Ryle, “the official doctrine” of modern philosophy (1), it generated what is referred to as the mind–body problem. Cartesian dualism asserts that although the substance of the mind and the substance of the body are ontologically different, they have an interactive relationship in which they have a mutual causal effect on one another. For instance, imagining sad thoughts in the immaterial mind can cause the material eyes to begin tearing up. The mind–body problem arises from this proposed relationship: can a non-physical object like the mind have a physical effect on a physical object like the body, and how?

As noted earlier, the Cartesian mind–body problem has been a source of tension between and within humanism and posthumanism alike, with proponents of both movements falling on either side of the argument. Modern secular humanists, for instance, mostly deny Cartesian dualism on the basis of scientific rationality. Curliss Lamont refers to Cartesian dualism as “supernaturalist metaphysics” that supports a sense of spirituality that is rejected by secular humanists (143). But the remnants of Enlightenment humanism’s embrace of Cartesian dualism can still be detected within secular humanism regardless. Secular humanists affirm (knowingly or otherwise) human exceptionalism, a notion defended primarily using traits of not the body, but the human

mind. Perez Zagorin, a humanist scholar, writes that human exceptionalism is justified by a series of “unquestionable” facts:

Humans are by a long way the most intelligent creatures who inhabit the Earth and possibly also, so far as we know at present in our search for extraterrestrial life, the most intelligent beings who exist in the universe. They are also the only one of nature's creations on Earth who have fashioned progressive moral codes ordaining love, care, compassion, and concern for their fellow creatures and other living things. (91)

These facts aren't related to physical, human traits like opposable thumbs. Instead, Zagorin posits that the mind is the primary substance that differentiates the human animal from the non-human animal.

Like humanists, posthumanists also disagree on the mind–body problem, which can be roughly distinguished between the pro-dualism transhumanists and anti-dualism critical posthumanists. Transhumanism is an interdisciplinary movement that specifically advocates for the enhancement of the human through technological posthumanism. The relationship between posthumanism and transhumanism, much like that of posthumanism and humanism, is hard to define. However, I posit that the mind–body problem is the single largest difference between the two similar movements. I will use the work of prominent transhumanist philosopher Nick Bostrom and critical posthumanist N. Katherine Hayles to illustrate this.

Transhumanist Nick Bostrom is well-known for popularizing the ancestor-simulation hypothesis, which is uncannily like the hypothetical examples Descartes

presents to prove that the bodily senses cannot be trusted. Bostrom proposed that one of three relatively unlikely circumstances must be true:

- (1) the human species is very likely to become extinct before reaching a 'posthuman' stage; (2) any posthuman civilization is extremely unlikely to run a significant number of simulations of its evolutionary history (or variations thereof); (3) we are almost certainly living in a computer simulation. (“Are” 233)

Our entire experience of reality, Bostrom posits, could be a fabricated, *Sims*-esque virtual reality created by our distant descendants to gain insight into how their ancestors may have lived. Bostrom goes on to reflect that the posthumans who have theoretically constructed this simulation are like gods in comparison to us in terms of their omniscience and omnipotence. It is no coincidence that Bostrom—who advocates for what Cary Wolfe describes as “an *intensification* of humanism”—formulated a set of circumstances remarkably similar to the demonic deception posited by Descartes, a philosopher who foregrounded the human exceptionalism at the heart of humanism (xv). In both cases, one’s own consciousness is all that is absolutely certain, and the senses based in the body aren’t trustworthy.

However, as implied in the concept of an ancestor simulation, Bostrom posits that in principle, uploading a thoroughly rendered brain scan to a powerful computer would successfully transfer an unaltered consciousness. This notion, scientifically, originates from cyberneticist Norman Wiener, who proposed that it could be possible to telegraph a human consciousness (Hayles 1). Robotist Hans Moravec rendered this possibility in terms of computer uploads in 1988, and Bostrom seems to have carried his torch into the modern day. Bostrom writes, “For the continuation of personhood, on this view, it

matters little whether you are implemented on a silicon chip inside a computer or in that gray, cheesy lump inside your skull, assuming both implementations are conscious” (“The Transhumanist FAQ” 17-18). As has been established in the AI chapter, what defines a person doesn’t lie in the circumstances of creation or substrates used for that creation. However, the question of transferring a previously established consciousness from one substrate to another raises questions not about whether the consciousness remains *a* person, but whether they remain *the same* person they were prior to this transfer.

Unlike transhumanism’s embrace of mind-body dualism, posthumanists remain skeptical, even if they acknowledge that the mind’s information could physically be removed from its embodiment. Although his work predates posthumanism, Gilbert Ryle famously critiqued Cartesian dualism as describing “the ghost in the machine,” a phrase he uses with “deliberate abusiveness” (5). Ryle claims that the mind and the body are not comparable substances as posed by Descartes. Instead, the mind is a description of the way the body is organized rather than an additional, unseen part of the body. Ryle writes, “The belief that there is a polar opposition between Mind and Matter is the belief that they are terms of the same logical type” (12). Ryle illustrates that this belief is faulty through the hypothetical example of a person visiting Oxford for the first time. They go on a tour that shows them all of the various colleges, administrative offices, laboratories, and libraries that comprise Oxford. The visitor, confused, asks where the University is. He says, “I have seen where the members of the colleges live, where the Registrar works, where the scientists experiment and the rest. But I have not yet seen the University in which reside and work the members of your University” (Ryle 6). It goes without saying

that the University isn't, in fact, an additional component of Oxford, but denotes the way that all of these components are organized and interact. Likewise, the thinking mind isn't an additional part of the body; it is the result of the composition and relationship between the parts of the body.

Much like the iconic image of the ghost in the machine carried into science fiction, Ryle's emphasis on embodiment is something that carries into the critical posthumanist view of how the mind and body intersect. Where the circumstances of embodiment are irrelevant to transhumanist Bostrom, they are incredibly important to a posthumanist scholar like Hayles, who writes that "embodiment makes clear that thought is a much broader cognitive function depending for its specificities on the embodied form enacting it" (xiv). Instead, embodiment and subjectivity are infinitely influential to Hayles's posthuman subject, with the liberal humanist subject coming into question primarily due to the myth of autonomy, a notion that is preserved in Bostrom's fantastical digitized consciousness. The mind, to Hayles and Ryle alike, is closer to a verb than a noun. The thinking mind is the *process* that results from the interactions between physical parts of the human body and the environment surrounding that body, not an additional, metaphysical *entity*.

Mind-body dualism is particularly pertinent to the science fiction novel and short stories that are the focus of this chapter because they involve body swapping, in which the consciousness is removed from its original body and re-embodied in an alternative one. On the one hand, mind-body dualism is reified in these narratives, as the consciousness can and is severed from the body it originated from. On the other hand, the overarching theme of these narratives is that even when body swapping is presented as a

procedure as straightforward as Bostrom's brain-to-computer upload, embodiment remains an important aspect of subjectivity. This critique of dualism aligns with Hayles's: although the information that constitutes consciousness can be removed from its organic substrate, the substrate remains a crucial factor in the construction of that consciousness. Richard K. Morgan's 2002 novel *Altered Carbon* depicts a transhumanist daydream of preserving the consciousness beyond death through the presence of a cortical stack, a small hard drive located at the base of the brain. However, the experiences of the main character, who has been embodied in countless bodies over many years, suggest that the transfer of consciousness from body-to-body doesn't leave it unaffected. Likewise, Calvin Gimpelevich's 2017 short story "Rent, Don't Sell" deals with the memories held within the body, even if the consciousness inside of it changes. The main character, a disabled Marine veteran, yearns for a new body to replace her missing limb. Body-swapping, however, is a privilege typically reserved for those who can afford it. Her encounter with a trans woman—who regrets ceding her original body in search of a solution to her gender dysphoria—radically alters her perception of the body's relationship with the mind. Finally, "The Girl Who Was Plugged In" by James Tiptree Jr. (1973) addresses the manipulation that occurs when body-swapping is motivated by capital gains. The consciousness of a vulnerable teenage girl is used by a corporation as the remote brain of a genetically engineered woman, created to promote products. The narrative explores the codependency the girl forms with her new body and criticizes science fiction readers and writers for prioritizing fantastical technological advancements over empathy for the characters in the text. All of these narratives appropriate this whimsical science fiction technology to convey a certain cynicism about the anticipated

effects of that technology, particularly as it's used to reinforce class divisions and fortify gender dichotomies.

I. *Altered Carbon*

The term cyberpunk describes a subgenre of science fiction that is characterized by a decaying yet futuristic urban setting and a brooding, outcast protagonist. Society is often organized into stratified class hierarchies, so the suffix *-punk* suggests a resistance to an overarching antagonistic force that is oligarchic and/or fascist. Bruce Sterling wrote, simply, that cyberpunk depicts “lowlife and high tech” (13). Richard K. Morgan’s 2002 novel *Altered Carbon* is the most archetypal example of cyberpunk literature in this chapter, because of its cynical representation of the perverse nature of late capitalism. However, while Heather Hicks writes that major cyberpunk authors tend to “privilege disembodiment over embodiment” (64), Morgan’s novel leans in the opposite direction. The novelty and seemingly positive aspects of body swapping in the setting of *Altered Carbon* are tainted by the ways that it has shifted human subjectivity and reinforced class hierarchies.

Altered Carbon is set over 300 years in the future, and the human race has colonized multiple extragalactic planets using a revolutionary technology that condenses the human consciousness into pure information to be sent thousands of light years away with extreme efficiency. This leads to the presence of “cortical stacks,” hard drives situated at the back of the neck that are used to store the entirety of that person’s consciousness. Bodies, to those privileged enough, are seen as a furnishing and referred to colloquially as “sleeves.” Hayles writes that her nightmare is “a culture inhabited by

posthumans who regard their bodies as fashion accessories rather than the grounds of being” (5), which seems to have come to fruition in this narrative’s universe.

In terms of shedding the importance of embodiment and materiality, the premise of *Altered Carbon* enacts all of the advantages to uploadable consciousness as detailed by transhumanist Bostrom. Death is only permanent if the cortical stack is destroyed. Cortical stacks can be inserted into a virtual reality, which facilitates life without a body. Bostrom even writes, uncannily, “You could travel at the speed of light as an information pattern, which could be convenient in a future age of large-scale space settlements” (“The Transhumanist FAQ” 18). Despite this exciting scientific future, Morgan expresses skepticism toward Bostrom’s aspirations. In this novel, only the wealthy have access to these advantages, such as automatic back-ups of cortical stacks to ensure immortality and even the privilege of resleeving in general. In addition to this, the psyches of those who stay alive for centuries or regularly swap bodies are dramatically altered, often for the worse. Body-swapping is characterized as a potentially traumatic experience for the unprepared.

The “Meths,” a class of absurdly wealthy oligarchs, develop a warped sense of morals because of their extended lifespans and frequent resleeving. Meths are, for all intents and purposes, immortal, which is reflected in the slang term that refers to them; Meth is short for Methuselah, the 969-year-old figure of the Abrahamic religions. Laurens Bancroft, a Meth that strongarms protagonist Takeshi Kovacs to solve his murder, hasn’t quite reached Methuselah’s age, but he *is* over 300 years old. “Rich people do this,” Kovacs says regarding his new, unwanted role as a private investigator, “They have the power and they see no reason not to use it. Men and women are just

merchandise, like everything else. Store, them, freight them, decant them. Sign at the bottom, please” (34). The stereotyping of Meths as exploitative and callous is echoed throughout the narrative. The local police chief, Kristen Ortega, says of Meths:

Suddenly the little people, thirty, maybe forty years old, well, they don’t really matter anymore. You’ve seen whole societies rise and fall, and you start to feel you’re standing outside of it all ... They’re like the A.I.s. They’re a breed apart. They’re not human. They deal with humanity the way you and I deal with insect life. (71)

The characterization of the Meths as “not human” and, likewise, the perspective that the “little people” are as insignificant as insects to them goes to show how the devaluation of the non-human can be applied to undesirable groups of people.

Morgan shows that the stereotype that Meths don’t value life is largely true, which offers a critique of the immortality idealized by transhumanists. There are three Meths present in the narrative: Laurens Bancroft, his wife Miriam Bancroft, and Reileen Kawahara, a mob boss who is very familiar with Kovacs. Ultimately, Miriam and Reileen are responsible for Laurens’s death, as they drugged him in retaliation for refusing to cover up a murder at Reileen’s brothel. Reileen says that when she told him about the murder, she “hardly expected him to side with the little people,” reiterating the belittling language Ortega used to describe the Meths’ perception of others (455). In a drug-fueled rage, Laurens murders a sex worker and kills himself to erase the memory of it. In her final moments, Reileen tells Kovacs, “You are *still* young and stupid. Human life has no value. Haven’t you learned that yet, Takeshi, with all you’ve seen? ... You can always get some more people. They reproduce like cancer cells, whether you want them or not”

(455-6). The Meths, the most powerful people in this society, have no regard for the lives of those beneath them because, presumably, they've lived too long, seen too much, and have nothing to lose.

The protagonist, Takeshi Kovacs, is like the Meths in that he is well-adjusted to re-sleeving, but he has been trained to avoid feelings of personal ownership of his body. Laurens Bancroft awakens in clones of his own body, but Kovacs doesn't have that luxury. He is an Envoy, which is essentially an elite class of super soldiers that are psychologically trained to quickly adapt to new sleeves. This training allows them to acclimate quickly to foreign sleeves and foreign lands. Kovacs says of ordinary soldiers exposed to similar stress that, "They're in bodies they don't know, on a world they don't know, fighting for one bunch of total strangers against another bunch of total strangers ... The climate is different, the language and culture are different, the wildlife and vegetation are different, even the *gravity* is different" (Morgan 36). Preparedness for these changes, Kovacs says, can't come from technological additions to a sleeve or a cortical stack. The only way this preparation will transfer quickly from sleeve to sleeve is if the consciousness within the stack is capable, in and of itself, of adjusting to those changes. The process of resleeving, then, isn't as simple as downloading a consciousness that will awaken, unchanged.

Without the training that Kovacs received, ordinary citizens often develop an ownership over their own body that makes resleeving deeply traumatic. Kovacs has a computer hacker named Irene Elliot taken from disembodied storage and resleeved to help him in his investigation. However, he is unable to obtain her original body, so her appearance changes drastically. Kovacs observes, "Out of the corner of my eye, I saw her

look down at the body she was wearing, as if she'd spilled something down herself" (358). She has no recognition of her own body, an experience that is deeply troubling to her. She tells Kovacs, "I slept with my husband, and I feel like he's been unfaithful to me" (358). Kovacs reflects on the myriad magazine articles and self-help manuals that have been developed in light of this common, traumatic experience. However, he disregards them all, saying that "the reality was pain, and right now there was nothing anyone could do to take it away" (359). The normalization of this technological posthumanism, the fantasy presented by the narrative that body-swapping is not only possible, but beneficial, falls apart when consciousness and subjectivity are warped in response to a change in embodiment.

Kovacs, through his experience with varied forms of embodiment, has developed an understanding of how embodiment impacts consciousness that is unique among the characters the narrative. He says, "As a child, I'd believed there was an essential person, a sort of core personality around which the surface factors could evolve and change without damaging the integrity of who you were ... this was an error of perception caused by the metaphors we were used to framing ourselves in" (327). His juvenile hypothesis is reminiscent of essentialism, the conception of the human as possessing a particular set of attributes that define it as human, often referred to as "human nature." However, he comes to move past this conception with time and experience, determining that the metaphors used to understand human personality and consciousness were incorrect in a way that evokes Ryle's mocking label of "the ghost in the machine." This ghost, asserts Kovacs, doesn't exist. Human personality is nothing more than "Form in response to stimulus" (327). The core of who he is depends on his embodiment and

environment. Although Kovacs is psychologically trained to avoid feelings of ownership over his sleeves, this sentiment suggests that, to some extent, his sleeve owns and shapes his mind.

Consequently, when Kovacs and other characters are resleeved into racially different bodies, the shift in their own self-image and the way they are perceived can be profoundly troublesome. Although race and racism aren't addressed in detail, it *is* clear that race holds a great deal of meaning to the individuals in the narrative. In Morgan's imagined world, the ability to swap bodies doesn't dismantle the significance of race. Kovacs, hailing from a planet that was settled by Hungarian and Japanese colonists, notes that he feels "exiled into Caucasian flesh" and detached from the body in which he created so many formative experiences (233). A character who was specifically trained *not* to grow attached to his body still finds significance and identity in his race. Likewise, when Kovacs waits in a resleeving facility, he sees a young Black woman and her two Black children greeted by their patriarch, "the stooped, middle-aged white man standing before them in tattered U.N. surplus fatigues" (279). One of his children is completely unable to identify him, an expected result of resleeving that only adds to the distress of the father, who "looked like he'd been crying since they dragged him out of the tank" (279). Of course, one of the issues that comes with this sleeve is that he's significantly older than he was previously, which makes the sleeve usable for a shorter period of time. If his family is unable to pay for a new sleeve when the time comes, he'll be left on stack indefinitely. However, the juxtaposition of his race and age with that of his family is shocking, to say the least. Here, Morgan argues that even in a society that functions as if

the mind and body are cleanly separate entities, the body significantly contributes to how the mind interacts with itself and its environment.

The trauma that results from a sleeve change is either rooted in an indescribable shift of subjectivity (“the reality was pain”) or a shift in one’s relationship to their environment and the people in it (Morgan 359). In lieu of other explanations, the discomfort that arises when characters are given a body of a different race seems to be similar to the discomfort that comes with resleeving in general. Changing one’s appearance to any extent is troubling. Sex and gender³, however, play a different role in this text, one that suggests an essentialism that the narrative distances itself from in most other cases. There are consistent differences between any male body and any female body, according to the experienced narrator. Nothing to this extent is suggested about bodies of different races, for instance. It is established that the physical parts that compose the body are relevant to one’s experience with embodiment. But in the brief time that Kovacs embodies a female form, the sexed parts of the body are the only relevant parts and female embodiment is weaponized against him.

The most visceral, memorable, and impactful gendered experience in the novel is when Kovacs is tortured and raped in a female body, a body that is ceaselessly identified as Other. Kovacs notes that this isn’t his first time embodying a woman. He reflects, “To a man, skin was a barrier, a protection. To a woman, it was an organ of contact. That had its disadvantages” (Morgan 152). Morgan’s representation of this difference between

³ For the purposes of this thesis, “sex” is defined by the physiological attributes that are used to identify if a newborn child is a boy or a girl. “Gender” is the social, cultural, and personal identity that is adopted and enacted throughout one’s lifetime, which is typically indicated through gendered acts and appearances. I want to note that neither sex nor gender exist in a binary, but given that this text doesn’t represent that reality, I will use male/female to denote sex and man/woman to denote gender.

sexed bodies could be representative of how the gender roles and gendered cultural experiences impact one's conception of one's body and self, as influenced by Cartesian dualism. Judith Butler, in an essay analyzing Simone de Beauvoir's statement that "One is not born, but rather becomes, a woman" (qtd. in Butler 35), describes how men are historically associated with disembodied intellect while women (the Other) are associated with the body. Butler writes, "By defining women as 'Other,' 'men' are able through the shortcut of definition to dispose of their bodies, to make themselves other than their bodies, and to make their bodies other than themselves" (44). In this case, the subjective function of a man's skin, as noted by Kovacs, is to protect the Cartesian ghost, or mind, that inhabits it. The woman, on the other hand, *is* her physicality, so her skin functions as a point of "contact" with others (Morgan 152). It is also worth noting that the first physical sensation described by Kovacs when he awakens in a female body is "a dull, bloated feeling in my guts that told me my period was due" (Morgan 159). Morgan's descriptions of Kovacs's physical sensations while experiencing female embodiment serve as an incessant reminder of the Otherness of female bodies. His hair is somehow "lank and dirty with the onset of the period," and the relationship between menstruation and the cleanliness of hair is never explained. His breasts are also "swollen and tender" (159). And ultimately, this female body is physically weaker and has a lower pain tolerance (which, again, is because of "the menstrual cycle") than the body Kovacs came from (152). On the other hand, when the novel opens and Kovacs inhabits a new male body, his descriptions of his physicality aren't nearly as based in sex characteristics; he has a "swimmer's build," "tightness in the lungs that suggested a nicotine habit," "scarring on the forearm" (15). Unlike the bodily details described in that moment, the

sexed features of the female body are presented as the most fundamental components of that body.

Morgan focuses on the sexed parts of the female body in preparation for Kovacs to be raped, a traumatizing gendered experience that he was utterly unprepared for. When he makes a vain attempt on first encounter to fight his torturers, one of them calls him—in an overbearingly gendered combination of profane terms—a “Bitch cunt” (153). It is abundantly clear from the first moments of this sequence that embodying a female form was intended to be degrading, to strip any masculinity and agency from Kovacs. His torture begins henceforth, and although he is in a virtual space, Kovacs notes that this makes it possible to “torture a human being to death, and then start again,” making it even more intense than corporeal forms of torture (156). As he describes his violent sexual assault, he notes that there is “no kind of conditioning in the known universe” that could have prepared him for that experience (156). He dissociates, with stream of consciousness narration taking over in the following pages. The only way to maintain his sanity inside a female body is to do all he can to get out of it. When he is finally released, the normally circumspect Kovacs abandons all restraint and slaughters every single person working in the facility. He reiterates throughout the narrative that what they did to him was “personal,” not just ordinary violence that comes with their line of work. Kovacs, a man not shaken by much, is deeply affected by this vulnerable experience. This is an enactment of the rape-revenge fantasy, which Wendy Hesford writes “provides an example of how women negotiate, resist, or reproduce rape scripts with their bodies, actions, and narratives” (193). Kovacs most definitely harbors a desire for revenge and

acts upon it, even killing those who work in the body-smuggling ring but are otherwise unrelated to Kovacs's rape.

What is notable here is that Kovacs experiences gendered violence against his female body, but is only capable of enacting his revenge fantasy in a male body. John Schwetman writes that Morgan "engages with feminism and multiculturalism in creative and productive ways for the most part" (137). I must disclose that I haven't read the two novels that follow *Altered Carbon*, but in terms of this novel, I disagree. Morgan suggests that, indeed, our bodies affect our subjectivity. They're significant to the way we experience the world and the way the world perceives us. Using those notions, Morgan suggests that the bodies of females, an expansive and diverse categorization, are inherently and specifically different to the bodies of males. This difference is founded upon sexed body parts and the view of the woman as deeply determined by her flesh. From a posthumanist perspective, Morgan's emphasis on the differences between the male and female parallel the differences between the human and the non-human; those differences are real, but they carry less significance than we attribute to them. Morgan reproduces a world in which rape is used as a tool to degrade and disempower female bodies. And the revenge fantasy, a plot device used as a reversal of this trauma, cannot be enacted in the violated female body. The gender essentialism employed in this section is incongruent with the rest of the text, so I find it hard to argue that this plotline is intentionally feminist. The implications are troubling: that the remnants of humanism and Cartesian dualism are so imperceptible in discourses about sex and gender that they slip into a text that is otherwise critical of those concepts.

Ultimately, Morgan illustrates the various benefits of the disembodiment of consciousness as conceptualized by Bostrom but also demonstrates that those benefits could come with a range of problematic caveats. Immortality is possible, yes, but conditional. The extremely wealthy are the only population who can truly supersede death through automatic back-ups of their consciousness and clones of their bodies, while lower-class cortical stacks sit dormant in storage. Consciousness can be condensed into information and sent across galaxies in minutes, but at the cost of alienating inextricable components of the body, which is shown to be distressing enough for the average person to opt out of resleeving. Those who choose (or must) inhabit a revolving door of bodies must develop an austere, dissociated attitude to cope with the trauma of being constantly resleeved. Kovacs says, “It took a certain kind of person to keep going, to *want* to keep going, life after life, sleeve after sleeve. You had to start out different, never mind what you might become as the centuries piled up” (71). The Meths, like Kawahara and Miriam, view the lives of others as insignificant in comparison to their own extended lifespans. Morgan seems to argue that the physical separation of the mind and the body is possible, but not without drastic consequences. The toll of splitting two facets of a person that are equally important in the construction of the self can be far too difficult to bear.

II. “Rent, Don’t Sell”

Like *Altered Carbon*, Calvin Gimpelevich’s short story “Rent, Don’t Sell” addresses the importance of embodiment in a body-swapping culture. However, the lack of an immortal cortical stack means that the individuals in this story maintain a sense of ownership over their bodies. Nok, the protagonist of this story, is the exception to this rule, as she desperately wants a different body. She is a Marine veteran who lost an arm

in combat but was deemed healthy enough to be ineligible for a new body. Instead, Nok makes a living swapping into the bodies of the wealthy to exercise on their behalf, which offers a brief reprieve from her own body. Nok's coworker, Natasha, reveals that she is a transgender woman who agreed to swap bodies with a transgender man to alleviate her gender dysphoria. However, she regrets her decision and is fighting to obtain legal ownership of her former body. Nok witnessing the exploitation of her sister's body and Natasha's distress inside of a foreign body serves to shift Nok's view of the effect of embodiment on the mind and reinforces the notion that the body carries information that influences and constructs the consciousness.

Gimpelevich presents body-swapping as a particularly damaging facet of consumerism in this narrative, with multiple examples of exploitative jobs that involve body-swapping. The least problematic of these is likely Nok's job. She is paid to temporarily inhabit other bodies and exercise inside of them, leaving the owner of this body with all the benefits of exercise without requiring effort or initiative. Although Nok's motivation is being commodified, she is also using the bodies of her clients as an opportunity to experience life with two arms again: "She hated the clients. She hated herself. They took what they had for granted" (85). In this sense, the relationship between Nok and her clients is both mutually exploitative and mutually beneficial. Although the clients possess the power in this dichotomy, Nok is being compensated monetarily and with the fleeting experience of what she so desperately wants: an abled body.

This position isn't the first body-swapping employment Nok has had, however. Her friend Joe referred her to a different body-swapping job: embodying a detoxing addict for six weeks. It pays \$3000 a client, which comes out to \$500 a week for a job

that has no time clock. Nok did this once, but never again, deciding that it's "not worth it" (84). Even at her new job, Nok was accidentally swapped into a detoxing alcoholic, and she says, "Like, if my mother was there, and she had a drink, I would've punched her in the face to get it" (96). The physical sensations and reactions that go on inside the body don't leave that body when a consciousness does, but they certainly have massive effects on whatever consciousness *is* in there. Her friend Joe, for instance, succumbed to the pressure and, presumably, the addictions of his clients. He was fired after being found falling asleep with "track marks fresh up one leg" (84). This is the first allusion to the idea that the body has its own memories and history that constructs consciousness. Joe, a man with no history of drug use, fell into addiction, presumably as a result of experiencing the cravings synonymous with detoxing.

The body-swapping work that ultimately leads Nok to reject her desire for a new body is that of her sister Mara, whose body is rented to strangers for purposes that she isn't legally allowed to know. Mara assures Nok that she doesn't want to know what the clients do with her body anyway. She says, "Does it matter? I mean, I'm not there. It's a shell. It's not like your body remembers" (89). This seems to play on the rhetoric that refers to sex workers as *selling their bodies*, but this text takes the idea literally. As the title suggests, though, Mara *rents* her body, she doesn't sell it. Mara's devaluation of her materiality as a "shell" shows how the ubiquity of body swapping makes it easy to privilege the mind over the body. After all, the reality is that Mara has no conscious idea what her body does when she rents it away. However, after 3 months, Nok observes physical changes in her sister, noting that there were "other traits in her face, evidence of other habits, a sharpness, experience, different knits to her brow" (94). Mara's body

betrays evidence of experience, despite Mara not having been present for those experiences. Nok draws a striking contrast between her employment and Mara's: Nok leaves noticeable effects on the bodies of her clients while Mara's clients leave noticeable effects on Mara's body (95). This realization heightens Nok's concern for the well-being of her sister.

What ultimately makes Nok disgusted with the commodification of bodies (and her own use of them) is recognizing similarities between herself and one of Mara's clients. Nok watches Mara's body be inspected and bought by a client, who refers to her as *it*: "I'll take it"; "I need it now" (98). Mara and Nok had plans, but Mara either can't or won't refuse the woman's request. In that moment, Nok recognizes a similarity between herself and this client: "They were the same ... She rented bodies. She used them to remember life with two hands" (98). Nok uses the experience of her employment to explain to Mara that bodies do, in fact, retain and remember what has been done to them. But watching the client, described as a "crone" (98), use Mara's body to chase the youth she once had makes Nok realize that her reasons for working as a body-swapper come from a similar place. Just before the scene in question, Nok finishes her day at work by doing pull-ups, an exercise she is unable to do with one arm. "It was a work pleasure," Nok says (96). Nok derives contentment from her work by using other bodies to escape the realities of her own, a motivation that mimics the crone's use of Mara's body. The difference is money: Nok can only temporarily escape her unwanted body through labor while the crone can use her money to escape an unwanted body and do anything she likes in the new one.

Nok does, however, meet and begin dating a woman who was able to attain a new body without spending money, but she deeply regrets her decision to do so. Natasha, a transgender woman, met a transgender man in a chat room and agreed to switch their bodies. On the surface, a transgender woman and a transgender man agreeing to swap bodies seems like a mutually beneficial, affirming option. It's a painless, fast, and affordable way to transition, particularly in comparison to hormones and surgeries. However, Nok observes that Natasha looks physically uncomfortable in her body, noting, "She moved like a stranger to her own skin" (86). Natasha later confirms this observation, saying that her new hormones make her *feel* like herself but when she looks at herself in the mirror, "it's someone else's reflection" (91). Swapping bodies alleviated Natasha's gender dysphoria but replaced it with an existential, embodiment dysphoria, a disturbing prospect to say the least.

Through the depiction of Natasha's discomfort in her new body, Gimpelevich offers a critique of the "wrong body" narrative that is commonly used to explain what it means to be transgender (e.g., *She feels like she was born in the wrong (male) body*). Ulrica Engdahl writes that this has been criticized by various academic and social movements for "producing a reified image of both body and self as static and separate entities and thereby correlating an essentialism of genital materiality that disputes the realness of transgender experience" (267). The wrong body narrative is, at its core, a reinforcement of mind-body dualism, a notion that Engdahl argues erases the wide range of subjectively constructed bodily meanings among trans people while reinforcing a gender binary in which not-male equals female. Natasha, who receives what is supposed to be the perfect solution to her "wrong body," only feels like her body is wrong once she

inhabits a cisgender female body. She explains that she made the switch because she thought she was too tall to pass⁴, but now says, “I don’t even care if I pass. It used to hang over my head—the most important part of transition, you know? Be a woman, look like a woman” (92). Natasha’s rejection of the expectation to pass seems to stem from a reinterpretation of her priorities: she swapped bodies to feel comfortable in her own embodiment, a desire she wholly attributed to gender dysphoria and her ability to pass. She discovers, though, that sacrificing all other elements of her body to attain a cis female one only heightened her discomfort.

The man inhabiting Natasha’s former body doesn’t reciprocate her feelings of distress and refuses to switch back, a decision affirmed by the court after Natasha sues him. She has no legal basis on which to reclaim her former body because in this society, “Property contracts were binding—bodies belonged to the mind” (96). Again, the dominant culture assumes that because what is considered the mind and body can be separated, that the mind is an entity that is capable of ownership and the body is a commodity. However, the instances of body swapping seen throughout the text indicate that the relationship between the mind and body is far more intertwined and complex than these simple dichotomies. The distress that Natasha feels in her new body makes this abundantly clear. She says, “This skin is driving me crazy. It makes me feel things that aren’t mine—I swear, his memories live in this body. I feel it in his stomach. The body wants to turn me into him. To make us a fusion” (96). Her subjectivity is so detached from her physical embodiment that she refers to the body she’s in as *his*, not her own.

⁴ To “pass,” in this context, refers to when a transgender person is perceived as the gender they identify as. The desire to assimilate into a cisgender, binary conception of gender isn’t shared among all trans people, and the term itself is contentious due to the implication that trans people are deceitful by presenting as they wish to.

The notion that the body itself carries information and memories is reiterated time and time again, from the transferal of addiction from the body to the mind to Mara's body holding the remnants of experiences that she can never consciously know of.

The notion that the mind cannot own the body because the body constructs the mind is what fuels Nok and Natasha's decision to reclaim Natasha's original body by force. Nok says that her military experience taught her "If you can take it, it's yours. It's what countries do, what rich people do, what politicians and muggers and bastards all do—it's yours" (99). In a society in which desirable bodies can be rented for personal use, in which the working class is paid to do the dirty work of the wealthy while wearing their skin, in which a mind simply has to claim a body to own it, in which a body can be bought, sold, and traded like a used vehicle, then it also follows that the body can be subject to robbery or reclamation. The closing lines are Nok's fond memory of "the body abandoned. When the Irish skin crumpled and the stranger filled with her girl" (101). The body that was previously unfamiliar to Nok becomes strikingly familiar once Natasha is within it. Natasha is more authentically herself inside of her original body than she was in her swapped female body, even before pursuing traditional transition in order to achieve what she once wanted more than anything: to pass. Instead of body swapping, Natasha seeks transition in a process that is true to the word "transition." While taking hormones, her body changes in a process that is under her control and contingent upon her comfort.

Through the depiction of Natasha's regret, the exploitation of Mara's body, and the ways in which bodily processes like substance withdrawals have profound effects on the mind, Gimpelevich posits that the body and mind can be separated, but not cleanly. The conditions of embodiment are deeply impactful, and the body can retain memories

and evidence of experience that construct the function of the mind. The last lines of the story mention that “Nok’s arm stopped hurting” (101). Even though her success in obtaining Natasha’s former body proves that she has the capability to run away in a new body, she opts not to. Nok internalizes that although the body can fail to reflect the self-conception constructed by the mind, there is no such thing as a wrong body.

III. “The Girl Who Was Plugged In”

James Tiptree’s short story “The Girl Who Was Plugged In” (1973) is unlike the other two texts in this chapter in that it offers no evidence of the future technology being used in beneficial ways. A societal reject on the basis of her ugly appearance, a teenage girl named P. Burke attempts suicide and is resuscitated by GTX, a corporation that promises to make her one of “the gods,” a group of impossibly beautiful and influential people who, unbeknownst to consumers, are created by companies in order to promote their products without violating an advertising ban. P. Burke is the brain controlling Delphi, a genetically engineered, organic body without any autonomous thought or agency. Through her embodiment as Delphi, P. Burke falls in love with the son of a GTX executive named Paul, who is under the impression that Delphi is an ordinary person who has been implanted with surveillance and control devices. In his attempt to be a knight in shining armor, demanding her implants be removed, he shoves and accidentally kills P. Burke, thus killing Delphi as well.

The story is, at its core, a subversion of reader expectations. We are primed for a rags-to-riches story along the lines of *Cinderella* and *Pygmalion*, but Tiptree delivers something far drearier and more pessimistic. The law intended to stop the scourge of consumerism only makes it more potent, Delphi/P. Burke’s criticism of the faulty

products that she is promoting does nothing to halt the corrupt trajectory of GTX, and P. Burke's attempt to live a life in which her love is reciprocated is rendered impossible. Tiptree also offers an abrasive narrator that addresses "you," a listener, who implicates both readers and writers in the romanticization of a future that, without substantial societal change, will intensify the various inequalities that plague the present. But like the other texts here, Tiptree asserts that the relationship between the mind and body is not a dichotomy, as Delphi exhibits the echoes of P. Burke's consciousness even when P. Burke isn't plugged in.

The body-swap in this story isn't strictly a swap, as P. Burke embodies both herself and Delphi simultaneously. P. Burke is recruited from a hospital following a suicide attempt, which was motivated by her inability to find acceptance in a materialistic society. For all intents and purposes, P. Burke is rendered legally dead after she departs from the hospital. She lives her "afterlife" as Delphi, a "perfect girl body" who exists to draw positive attention and adoration, an experience P. Burke has never experienced (Tiptree 10). When P. Burke is first learning to maneuver Delphi's body, it is established that P. Burke's experience isn't that of an outside observer to the body she controls; her subjectivity is shifted from her own body to Delphi's. She is connected to Delphi using electrodes that were surgically implanted into her brain, which makes her capable of controlling the distant body in the same way that an ordinary person's brain controls theirs. As the narrator describes it, "When you wash your hands, do you feel the water is running on your brain? Of course not. You feel the water on your hand, although the 'feeling' is actually a potential-pattern flickering over the electrochemical jelly between your ears" (10). The process of moving P. Burke's mind to Delphi's body differs from

the methods seen in *Altered Carbon* and “Rent, Don’t Sell” in that her entire consciousness isn’t transferred from her body to Delphi’s. Instead, P. Burke’s brain activity is broadcast to Delphi’s body, making her a “real live girl with her brain in an unusual place” (18). P. Burke is essentially embodied in two bodies at once. She is gaining lived experience through Delphi, but that lived experience is perceived and made into meaning by P. Burke’s brain, thousands of miles away.

P. Burke’s subjective experience as embodied in Delphi suggests that embodiment is extremely important to Tiptree. P. Burke revels in the attention and social life she attains as a beautiful person but her lack of deep physical sensation in Delphi’s body is quite troubling to her, particularly when she falls in love with Paul. Delphi’s body offers P. Burke no taste or smell, and the touch she does have (i.e., running water) is dulled: “Fabrics that would prickle P. Burke’s own hide feel like a cool plastic film to Delphi” (20). The corporation simply is not motivated, in terms of capital, to incorporate those senses in their genetically modified bodies. For P. Burke, the initial bliss of being desired and loved outweighs this loss of sensory information. After all, she has lived her whole life with senses, but has never experienced the positive attention that she does as Delphi. But when Delphi begins dating Paul, P. Burke is described as “Trying over twenty-double-thousand miles of hard vacuum to reach her beloved through girl-flesh numbed by an invisible film ... Trying to taste and smell him through beautiful dead nostrils, to love him back with a body that goes dead in the heart of the fire” (37). P. Burke is unable to express her love in a wholehearted—or rather, wholebodied—way due to the limitations posed both by the design of the body she inhabits and the sheer fact that her brain, the organ that processes sensory experiences and creates meaning from them, is

thousands of miles from the body experiencing love. The idea of transplanting the functions of the mind into another body, in this world, has stark limitations, which reinforces the idea that the mind and body do not exist in a dichotomy.

Despite the limitations of this codependency and double embodiment, it leads to an unexpected phenomenon: Delphi's uninhabited body displays autonomous behaviors that seem to mimic the sentiments of P. Burke. In order to keep P. Burke alive, she is periodically unplugged from Delphi's body to eat, move, and rest. When P. Burke's brain isn't present, Delphi enters a deathlike sleep. But after P. Burke controls her for a few weeks, Delphi begins to make small movements by herself, and once, "she breathed a sound: 'Yes'" (27). The narrator remarks that the employees monitoring Delphi's speech and hearing weren't paying enough attention to recognize this alarming development. Later, Paul tells Delphi that she "called his name in her sleep" (43). It seems that, unlike the expected sci fi experiment-gone-wrong, Delphi isn't developing an independent consciousness. Like muscle memory, Delphi's body is enacting P. Burke's most dominating thoughts. P. Burke hopes that she will "die and be born again in Delphi," a notion that the narrator brushes off as "garbage" (46). But when P. Burke *does* die, Delphi remains alive for hours, although she is merely a ghost of what she once was. She recognizes Paul and says his name repeatedly, along with "I'm Delphi" and "don't sleep" (55). Paul was a name that Delphi said without P. Burke previously, but introducing herself may be an allusion to P. Burke's desire to be born again in Delphi. The optimistic reader could interpret this as P. Burke actually experiencing her final moments as Delphi, unconnected to her own body and in bliss. The pessimistic reader could say that this is just another echo, just like the words she said in her sleep throughout the story. In any

case, it's abundantly clear that the body remembers the shape of P. Burke's mind, even to a small extent.

Although P. Burke and Delphi are intrinsically connected, GTX ultimately reuses Delphi's body with a new brain controlling her, the final example of this corporation viewing P. Burke as nothing more than an easily manipulated commodity. P. Burke is shown to be tragically naïve throughout the course of the text. Even when she is recruited from the hospital, her choices are to be arrested for attempted suicide (which is illegal in this setting) or to work for GTX. Although she unequivocally wants the opportunity to mingle with "the gods," she really wouldn't have much of a choice no matter how she felt. Mr. Cante, a GTX chairman, briefly describes the expectations they have for Delphi. When he explains that she is promoting products as a way to covertly advertise, she expresses discomfort at the idea of potentially breaking laws. Mr. Cante tells Delphi that she is performing a public service by promoting quality products, and she earnestly believes him. When Delphi enthusiastically agrees to the conditions of her position, the narrator mentions that Mr. Cante has a second speech prepared for when subjects are more wary of the deal, "But he can sense only eagerness here. Good. He doesn't really enjoy the other speech" (17). Later, the narrator describes how it's a good business investment to have some controllable gods because they will obey the wishes of GTX for reasons he doesn't mention, as "Mr. Cante never finished his speech" (23). If this isn't ominous enough, when Delphi proves to be unacceptably disobedient, the technicians who monitor and maintain the connection of P. Burke's brain to Delphi's body reveal that they are capable of inflicting pain and severing the connection as needed. P. Burke, blinded by the opportunity to abandon her miserable life in exchange for affection, is

unaware that nobody in GTX values her as a person. Instead, she is a commodity. An experiment. A voodoo doll.

The narrator of this story, known only as “the sharp faced man,” is able to tell this story because he was one of the technicians who subjected P. Burke and Delphi to torture, which he took great joy in. When he is discouraged from inflicting extreme pain on Delphi because it could kill her, he responds with vitriol: “The sharp-faced lad is angry. ‘Pull that pig out of the controls!’” (48). While Joe, the head of the cybernetics team, is concerned about the preservation of a system he worked so hard to perfect and Mr. Cattle is concerned about “the investment,” the sharp-faced lad seems to strictly be motivated by sadism and entertainment (49). The narrator is overbearingly critical of P. Burke’s appearance throughout his storytelling, referring to her as “the ugly of the world” (3), “a pumped-out hulk” (5), a “grim carcass” (20), and “a gaunt she-golem” (53). This pattern, I think, emerges from three places. One is that the narrator is shown to be overly cruel. Another is that the only role we see the sharp-faced man fill in the story is as P. Burke’s punisher. Perhaps the remnants of his work have carried into his language. Lastly, his sadism is certainly a reflection of the general society from which he came. If beauty makes one a “god,” it only follows that a lack of beauty makes one a monster.

These derogatory nicknames allude to the role of the narrator: to draw attention to the skewed focus of the average sci fi reader and writer. Schwetman, in reference to contemporary sci fi, writes, “Much science fiction simply celebrates the advance of civilization and the march of technological progress across the universe ... such works tend to remain in a starry-eyed mode of pure appreciation of the advantages” (132). Although there is no mistaking the corrupt underbelly of the future in Tiptree’s story, the

setting does have an enticing veneer, which the narrator describes in multiple diversions. He says, “But you’re curious about the city? So ordinary after all, in the FUTURE? Ah, there’s plenty to swing with here—and it’s not all that far in the future, dad. But pass up the sci-fi stuff for now...” (3). Despite asking the listener to resist their interest in the details of the future, the narrator goes on to list examples of the novel technology that we’re supposedly *not* paying attention to before reminding the listener, “We’re watching that girl” (3). While the narrator distracts the reader with these intriguing details about the future, P. Burke is in the process of attempting suicide, a significant moment to miss in the protagonist’s story. Melissa Colleen Stevenson writes that, in this moment, “The listener and, through him, the reader are implicated in this lack of focus” (96). However, it’s worth noting that this narrative isn’t a dialogue between the narrator and the listener. The narrator isn’t responding to the requests of the listener, although he is making assumptions about what the reader wants to hear. Ultimately, the narrator is the arbiter of how the story is told and chooses what the reader will focus on.

The storyteller is who sets the precedent for what a reader expects from a work of genre fiction. If, to reiterate Stevenson’s assertion, the listener is representative of the reader, I think that the narrator is representative of a sci fi author. The long history of sci fi offering a “starry-eyed” celebration of a technological future and a trivial, often easily resolved conflict within that future has encouraged sci fi readers to disengage with the story and characters within it in favor of flashy technology. After all, sci fi has developed a notorious reputation for sacrificing an intriguing plot in favor of an intriguing premise or setting. Tiptree’s narrator says as much when Delphi and Paul first meet and fall in love. The narrator briefly describes the inner lives of both individuals before cutting

himself off, saying, “Really you can skip all this, when the loving little girl on the yellow-brick road meets a Man” (37). The narrator reduces the budding romance between the couple to a trope so that he can expedite his way into more action.

Like Tiptree’s critique of the market-driven desire for flash characterization in sci fi, this story is eerily prescient in terms of critiquing and predicting the future of advertising, as corporations have gained increasing accessibility to our personal information and are capable of manipulating marketing strategies in response to this data. In Tiptree’s dystopic future, advanced technology is exploited by GTX to promote their products. The use of product placement arises out of necessity: companies are no longer allowed to explicitly advertise, limiting their marketing options to “displays in or on the product itself, visible during its legitimate use or in on-premise sales” (13). Although the notion of products being displayed and promoted in their true form seems more authentic than the use of traditional advertising methods (I am reminded of the mascara commercials that feature the tiny disclaimer that, to simulate the results of the product, the model’s eyes were *enhanced with lash inserts*), companies have found ways to effectively promote subpar products regardless. Of course, this is where the production of “the gods” comes from, the creation of bodies that are genetically engineered to be beautiful and, thus, influential. As Mr. Cantle tells Delphi before she makes her public debut, “You saw Ananga [one of the gods] using one so you thought it must be good, eh? And it is good or a great human being like Ananga wouldn’t be using it” (14). The tenuous (and frankly, baseless) link between beauty, morality, and trustworthiness makes the gods a potent influential force. The narrator describes an “automatic inbuilt viewer feedback” system in televisions, which tracks the reactions and moods of viewers in real

time so that content can be adjusted accordingly. This subtle tracking is prescient of contemporary companies buying the personal information of social media users to distribute targeted advertising. GTX's use of beloved media figures to promote products parallels corporate use of social media celebrities—who are often referred to as “influencers”—to promote products in their content. In this story, published in the early 1970s, Tiptree expressed anxiety about what advertising would soon become. This anxiety appears to have been justified.

While Morgan's novel and Gimpelevich's story offer a troubling speculation about the commercialization of the body, the body in Tiptree's story functions more like a puppet. The deception of Delphi's glossy and beautiful appearance is not that her identity is truly constructed by a “grim carcass” that exists beyond—and within—her (20). The deception is that her sole purpose for existing at all is to serve as a living billboard or pop-up advertisement. P. Burke's ineffable fusion with Delphi's body was merely an unexpected inconvenience to GTX, which was swiftly resolved once they found a new person to fill the vacancy left in Delphi's mind. While placing a price on bodies and assigning ownership to minds is problematic, the body in *Altered Carbon* and “Rent, Don't Sell” is at least acknowledged as having intrinsic value and some degree of autonomy once it is inhabited. On the other hand, the only value of the posthuman body in this story is determined by how much profit it can accrue for GTX.

IV. Conclusion

Each of these narratives depict futures in which the mind and body can be physically separated, as conceptualized by Descartes and Bostrom alike, but stipulate that fundamentally changing one's embodiment is not inconsequential. In *Altered Carbon* and

“Rent, Don’t Sell” body swapping can be deeply traumatic and cost prohibitive, which reinforces class disparities. In “The Girl That Was Plugged In,” it is used to manipulate a vulnerable teenager into enforcing the beauty standards that made her so loathed in the first place. Minds are also shown to be deeply influenced, or even created, by their embodiment. The characters in *Altered Carbon* often express intense discomfort upon being resleeved, and those who are resleeved indefinitely tend to become jaded and insensitive. The body affects the mind in a number of ways in “Rent, Don’t Sell,” from the addictions of a body reproducing itself in a foreign mind to the overwhelming discomfort Natasha feels after ceding her original body to someone else. In “The Girl That Was Plugged In,” P. Burke and Delphi become so intertwined that Delphi’s body echoes the dynamic of P. Burke’s mind even when P. Burke is not physically connected to her. These authors certainly do not suggest that the mind can live on, preserved and pristine, outside of the body that constructed it. Instead, as Hayles suggests, the informational patterns in the brain can be uploaded elsewhere, but the way those patterns would adapt to their new embodiment doesn’t guarantee that the relocated consciousness will present or perceive its environment identically to its function within its original body. Hayles writes that within discussions of cybernetics and posthuman futures, “embodiment continues to be discussed as if it were a supplement to be purged from the dominant term of information, an accident of evolution we are now in a position to correct” (12). Despite toying with the permanence of embodiment, these narratives reject the optimism at the heart of transhumanism by simply positing that the mechanics of re-embodiment are far more complex and beyond our understanding than is suggested by the imagery of uploading a brain to a computer. Transcending bodily limitations,

including the hierarchies imposed upon those bodies, is unlikely to be as straightforward as inventing and using the appropriate technology to do so. It's uncertain if a complete shift in embodiment would render the consciousness recognizable. I wouldn't say that these authors are wholly rejecting the implementation of body-swapping. However, they are certainly asking for the reader to consider who encourages its use and for what reasons.

Conclusion

It's abundantly clear that posthuman technologies in science fiction are dominated by dystopian representation. The incredible achievement of creating artificial, intelligent life in Dick's *Do Androids Dream of Electric Sheep?* is solely used to make slaves, and Lai's "Rachel" describes how the integration of sex and race in these creations is used to reinforce oppressive stereotypes and render objectification literal. The cyborgian technological components seen in Older's "The Black Box," McDonnell's "Lingua Franca," and Saunders's "Jon" are depicted as unreliable, invasive, and weaponized to strengthen the exploitative effects of colonialism and late-stage capitalism. The ability to separate the consciousness from the body in Morgan's *Altered Carbon*, Gimpelevich's "Rent, Don't Sell," and Tiptree's "The Girl Who Was Plugged In" may be a fatally flawed project, as it works under the assumption that the mind is strictly disembodied information that is independent from the material it exists in.

As I have argued, the hierarchies that have been justified by humanist philosophy are the source of the dystopias that are imagined by these authors, not the presence of posthuman technology. If these stories are taken to be cautionary tales against scientific advancement, then they effectively pose no possibility of optimism in our current time, as there is no indication that technological innovation will halt any time soon. Technology is also a broad and amoral force to rail against. Although the term is associated with electronic devices, the written word, a prosthesis that allows me to communicate with you across space and time, is so ingrained in our culture that we don't even conceive of it as a technological tool. David Wiley writes that in terms of technology, "the locus of good and ill moves from the tools back to the agents who suggest, teach, and train each

other the ‘proper’ ways to use them” (38). The effects of the written word, like any other technology, are contingent on the intentions of the creator and the user.

In the eight narratives I have analyzed, humanist ideology and Cartesian dualism distort posthuman technology into a harmful force. Humanism is aspirational, but it has never served all people or the environment that is indispensable to human existence. The hierarchizing of the human over all other beings was established and reinforced by those who have determined that some of us are more human than others. As Rosi Braidotti writes, the humanist Man is “implicitly assumed to be masculine, white, urbanized, speaking a standard language, heterosexually inscribed in a reproductive unit, and a full citizen of a recognized polity” (23). Under this assumption, humanism is inadequate in producing equity. The minds who forged American democracy and declared that *all men are created equal*, as inspired by philosophers like John Locke and David Hume, didn’t categorize women, slaves, and those who didn’t own property as “men.” Likewise, the European declarations of the rights of men didn’t extend to the groups of people that were subjected to colonial rule.

Although the contents of science fiction do not dictate laws and colonies, it is worth noting that the humanist Man as defined by Braidotti can be found in abundance in this genre. Finding protagonists and authors with diverse identities and experiences is certainly easier now than it has been in the past. Still, Denise Morales Soto writes that although women and racial minorities comprise a sizeable percentage of science fiction readers, publishers appear to be committed to a myth of the normative white, male science fiction reader. Morales Soto writes, “Science fiction and fantasy so naturally lends itself to inclusion and yet we continue to fight against it” (14). Science fiction’s

fascination with the Other is quite harmonious with the real experiences of various groups that just aren't commonly represented in mainstream science fiction. For instance, Calvin Gimpelevich's "Rent, Don't Sell" appears in the anthology *Meanwhile, Elsewhere*, which is composed entirely of fiction by transgender sci fi and fantasy writers. Gender nonconformity has a long precedent of appearing in media for the purposes of comedy and horror. There are few depictions of respectfully presented transgender characters in science fiction, and the narratives that do are often relegated to outright transgender sci fi anthologies like *Meanwhile, Elsewhere*. Both Larissa Lai's "Rachel" and Carole McDonnell's "Lingua Franca" were published in the postcolonial science fiction anthology *So Long Been Dreaming*. Nalo Hopkinson, an editor of the anthology, writes that the contributors take the trope of colonizing foreign lands and "critique it, pervert it, fuck with it, with irony, with anger, with humor, and also, with love and respect for the genre of science fiction that makes it possible to think about new ways of doing things" (18). Colonization is an age-old plot in science fiction texts. Why isn't postcolonial subjectivity found in abundance in the genre's largest publishing houses? Why are science fiction protagonists so often independent agents of change that largely goes unexplored? I chose to explore diverse posthumanist texts because they each offer distinctive insights into how future technology could be wielded against disempowered and marginalized groups.

The persistent liberal humanist belief in autonomy and human exceptionalism wasn't equipped to address the systems and hegemonies that deeply impact choice and freedom. It wasn't founded in light of the scientific consensus that the human is subjected to the same forces of evolution as all other living creatures. Humanism wasn't developed

in anticipation of the industrialization and greed that have generated the existential threat of climate change. And in recent times, the perception of the self as independent from its environment has been shown to be incompatible with the collective action required to respond to a pandemic. Posthumanism, as its name implies, is the logical progression from humanism to a philosophy that was developed in light of the altered landscape of our world. Voices that would have once been suppressed are now contributing to a broader and more comprehensive perspective of how the humanist doctrines of freedom are anything but universal. It is becoming increasingly clear that no mind is disembodied and no body is unaffected by its environment.

In his book *Pale Blue Dot*, astronomer and science communicator Carl Sagan reflects on the humility that has been thrust upon the human race in light of increasing knowledge about our planet's role in the universe:

Think of the rivers of blood spilled by all those generals and emperors so that, in glory and triumph, they could become the momentary masters of a fraction of a dot. Think of the endless cruelties visited by the inhabitants of one corner of this pixel on the scarcely distinguishable inhabitants of some other corner, how frequent their misunderstandings, how eager they are to kill one another, how fervent their hatreds. Our posturings, our imagined self-importance, the delusion that we have some privileged position in the Universe, are challenged by this point of pale light ... In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves. (13)

The framing through which we view our own subjectivity is inadequate in light of the understanding that the observable universe is unfathomably large, and we are

unfathomably miniscule. But paradoxically, we are also vital participants in a domino-effect of feedback loops. We are affecting and being affected by things technological and organic, human and nonhuman. The state of artificial embodiment, technologically integrated embodiment, and swapped embodiment as explored in these works of science fiction are shown to drastically affect the way a subject perceives itself and interacts with its surroundings. If we begin to critically examine our relationship with the environment that surrounds and encapsulates our bodies, perhaps we can contribute to a domino-effect that makes our pale blue dot more habitable and equitable for all of its inhabitants, even in the face of an unknowable future.

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