

OVERCOMING LIMITATIONS: THE RHETORICAL IMPACT OF SCIENCE
FICTION ON THE TRANSHUMANISM DEBATE

BY

SAMUEL FLETCHER

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Approved By:

Michael J. Hyde, Ph.D., Advisor

Alessandra Beasley Von Burg, Ph.D., Chair

Nancy M. P. King, J.D.

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LIST OF ABBREVIATIONS

<i>Beggars and Choosers</i>	<i>BC</i>
<i>Beggars in Spain</i>	<i>BS</i>
<i>Beggars Ride</i>	<i>BR</i>

ABSTRACT

Advancements in biotechnology have led to the development of the transhumanist ideology, the belief that humankind should harness the power of emerging technologies in genetics, artificial intelligence, and nanotechnology to enhance human existence past its current physiological and mental capabilities. Proponents of transhumanism face considerable opposition from those who believe humanity must avoid the temptation of radical biotechnology. From the rhetoric disseminated by both groups a problematic debate emerges, one marked by strident dogmatism and intractability from each side. This thesis examines the rhetoric of the transhumanism debate and argues that a new approach to deliberation is necessary. I contend that science fiction, specifically a trilogy by novelist Nancy Kress, offers rhetoric promoting dialogic, productive communication rather than the antagonistic monologue of the current debate. In analyzing the various rhetorical strategies used by Kress and how they operate rhetorically within the texts, I suggest that the “other-focused” ethical paradigm espoused throughout the trilogy is an appropriate template to transcribe onto the transhumanism debate. I conclude with thoughts on how Kress’ ideology can disrupt current obstinate rhetoric from pro- and anti-transhumanists and what the transhumanism debate may look like once a more dialogic approach to deliberation is adopted.

What is great in man is that he is a bridge and not a goal. – Nietzsche¹

¹ Nietzsche, *Thus Spoke Zarathustra*.

CHAPTER ONE: INTRODUCTION

The future has always been an area of fascination for me. Uncovering the unknown and better understanding oneself are noble goals and worthy endeavors that often result from with thinking about what is yet to come. The allure of the future led to my interest in transhumanism and trying to comprehend questions of what it means, why people promote it, how feasible it is, and whether or not it is an ethical ambition. In searching for answers, examining the rhetoric of the transhumanist movement and its considerable opposition becomes paramount. A great debate emerges when exploring pro- and anti-transhumanist rhetoric and with it comes an ethical dilemma for humanity with possible catastrophic consequences if the wrong choice is made. With that in mind, what follows are thoughts on transhumanism, on the potent and problematic rhetoric for or against the ideology, and on a prospective solution for reaching beneficial policy decisions regarding transhuman technology: science fiction. I write about the future hoping to reveal a little of the unknown and provide a slightly more complete understanding of humanity.

Transhumanism, as with many other contentious elements of modern society, is problematized by lacking a concrete definition experts and the public agree on. This failure in naming is due in large part to the seemingly inherent desire of commentators to insert ideological preference into the defining process. The result is a term that is never neutral, always teeming with implications and connotations. In hoping to avoid any precarious evocations at this thesis' inception, a nonpartisan definition from the *Oxford English Dictionary* is offered: "Transhumanism - A belief that the human race can evolve

beyond its current limitations, especially by the use of science and technology.”² In the analysis that follows, few statements will be as rhetorically benign.

In its reductionist form, transhumanism is distilled as an ethos for the combination of biotechnology and humanity in the near future. Evolving from humanism and based on individual freedom of choice and scientific control over previously random evolutionary processes, transhumanism’s goal is to “create a world in which autonomous individuals may choose to remain unenhanced or choose to be enhanced and in which these choices will be respected.”³ The ideology ultimately invites discussion on what it means to be human, and depending on the answer to that question, the role technology has in our continued progress as a species. For example, is there an innate uniqueness to humanity, essentialized in the concept of a “human nature” that should be protected at all costs, or is the species better defined by its ability to improve itself through technological advancement? The various speculated positive and negative consequences of transhumanism, including human immortality, genetic class inequality, loss of individual choice and greater agency over personal destiny, suggest that the current collective understanding of what makes a human *a human being* may be radically altered after the introduction of transhumanist technology. Such an ontological shift in the concept of being human warrants thorough deliberation; with the future of the species potentially at stake supporters and opponents of transhumanism engage in a combative debate on whether humanity stands on the cusp of greatness or destruction. The arguments from

² *Oxford English Dictionary*, “Transhumanism.”

³ Bostrom, “The Transhumanist FAQ: A General Introduction,” 4.

each side make obvious the fact that once a decision is rendered on how to approach transhumanist technology, the concept of human being will be irrevocably changed.

The technologically progressive side of the debate champions the use of biotechnology to advance human beings evolutionally into something mentally, physically, and ethically better. The opposing faction wants to maintain the current state of human existence, holding firm to the idea that human nature and dignity will be lost if enhancement occurs. Neither side appears willing to make any ideological compromises, leaving individuals—whose existential future is in question—with little option but to align with one of the diametrically opposed positions. The result is a divided public that is in desperate need of moral deliberation on transhumanism but cannot remove itself from a polarized position.

Further inhibiting the opportunity for public debate is the uncertainty surrounding many of the technologies associated with transhumanism. The list of biotechnologies falling under the transhumanist purview is expansive, but generally includes three main categories: genetics, artificial intelligence (AI), and nanotechnology.⁴ Each subcategory is a complex amalgam of engineering and biological sciences, with very little information filtering out to the general population. The perception of biotech is largely influenced by landmark discoveries and experiments; the completion of the Human Genome Project and Dolly, the cloned sheep, are two prominent examples. But neither was contingent on public ethical approval. Transhumanist biotechnology faces a more complicated route to acceptance. It must first situate itself into the public consciousness, and then rhetorically navigate through an ethical morass reinforced by strident support on both sides.

⁴ Kurzweil, *The Singularity Is Near: When Humans Transcend Biology*.

This thesis will argue that science fiction can be utilized to expand public knowledge of transhumanism to the point where an informed decision can be made and also bridge the rhetorical and ethical divide between pro- and anti-transhumanist factions, allowing dialogic, constructive conversation to occur among experts and the greater population. The need for public deliberation on the benefits and risks of transhumanist technology in an open venue is paramount given the possible irreversible consequences and changes to the future evolutionary direction of humanity. To show how science fiction can succeed in accomplishing this vital goal, I examine the rhetorical strategies implemented in Kress' *Beggars* trilogy, an example from the science fiction genre that raises and confronts important ethical questions regarding the transhumanist practice of genetic enhancing while promoting a dialogic approach to communicating and existing in a transhuman world.

In the remainder of this chapter, I offer a literature review of quantitative and rhetorical communication scholarship that addresses the extant body of research while carving out a niche for this thesis to occupy. There is considerable communication research on topics such as public understanding of science and bioethics, but few inquiries examine transhumanism directly, none of which utilizes science fiction as a lens to analyze and promote a more dialogic alternative to the current ideological standoff. Familiarity with the current research provides context on the difficulties in creating an informed public and why science fiction is a viable option for allaying the population's concerns about entering the transhumanism discussion.

I next highlight science fiction's epistemological role in the transhumanism debate. This admittedly limited glimpse provides support as to why the science fiction

genre maintains an important status in the creation of meaning for future biotechnology and should be relied upon as much as any expert or policymaker for knowledge construction. The genre features translational and transitional rhetorical qualities: presenting complex science in an understandable, realistic manner and transporting the audience to a fictional world that remains plausible, thus establishing a symbolic distance between the reader and reality. In this newly constituted space, science fiction critiques the contemporary world by inviting the audience to consider alternative possibilities and near future consequences for current political and societal decisions. Good science fiction exists in the future (or past) to impact the present, making it a genre of significant rhetorical importance. One result of science fiction's rhetoric is a public normalization of advanced technology. Through the repetition of various myths, motifs, and themes, the audience eventually becomes familiar with the subject matter and comfortable discussing it in an open venue. Transhumanist biotechnology has not reached this point, but continues to slowly trickle into public consciousness.

Following a brief survey in chapter two of the problems arising from the rhetorical strategies implemented in the transhumanism debate, chapter three offers a case study explicating the rhetorical significance of Kress' *Beggars* trilogy. Expanded from a Hugo and Nebula Award winning novella, the series serves as an exemplar of science fiction's potential to guide the transhumanist debate toward more productive deliberation by acting as a prototype for how to reconstitute the ethics of transhumanism outside of its current binary position. The strong epistemological tradition of the genre and the rhetorical strategies within the texts enable the construction of this alternative approach to discussing transhumanist technology. Numerous translational and transitional rhetorical

strategies and their implications are identified and expounded upon, including: synecdoche as a method of promoting a less dichotomous continuum of ethics, the introduction of unintended consequences encouraging rhetorical invention, the use of scientific language to retain the text's critical authority, and alternating between third- and first-person narrative styles to facilitate the creation of dialogic perspectives.

Taken as a whole, the texts inform and shape public understanding on an important topic by creating knowledge for the reader through its construction of an alternate world. New ways of viewing reality emerge out of this fictional landscape. The new space, filled with examples of ethical behavior from the novels, serves as a dwelling place occupying the middle ground between the two poles of the transhumanist debate. It is here that informed dialogic communication occurs, rather than one-sided, antagonistic monologue. Through the novels' critique of biotechnology's role in individuality, separatism, and the bifurcated relationship between "normal" and "enhanced," Kress' work provides a paradigm for establishing a more ethical approach to communicating and existing in a transhuman world.

Literature Review

Communication scholars have typically shied away from specifically recognizing the term "transhumanism" in their research, instead choosing to more closely analyze the three subcategories: genetics, artificial intelligence, and nanotechnology. An additional field of study, bioethics—the critique of biotechnological practices based on ethical perspectives—is also noteworthy in the extant literature, and is applicable to this thesis, even if the scholars do not explicitly mention transhumanist language or lexicon. Under these broad categories, five separate genres of research are deemed relevant to the debate

over transhumanism. The varieties reviewed are: quantitative and qualitative studies examining the public understanding of science; criticism of the ethical implications of biotechnology, of which transhumanism can be seen as an extension; analysis of the shift toward a cyborg existence (integration of robot technology with human bodies) and the effects of this shift on concepts of humanity; reflections on how the meaning of existence changes given our growing knowledge of the human genome and the digitization of that information; and rhetorical criticism of artifacts produced for the transhumanist debate. Notable findings from each category will be briefly reviewed.

Public Understanding of Science and the Ethics of Biotechnology

Public understanding of science has been a concern of communication scholars before the biotechnology debate became an important academic pursuit. As a result, the body of research regarding this category is robust. But, as Warnick suggests, this continued scholarly attention is for a good reason: “Lay readers may be ill equipped to evaluate the technical merits of argument about artificial intelligence, human cloning, genetic engineering, and other related matters. We...should nevertheless be prepared to weigh their long-term moral and ethical implications.”⁵ Critical evaluation only occurs when one understands the technology, making studies of public comprehension and the processes by which cognizance is stimulated vitally important. Knowledge of how information resonates within the public consciousness is a valuable resource for creating an ethical middle ground for the transhumanism debate.

Public understanding of biotechnology occurs in a number of ways; ideally individuals would learn from objective voices in the scientific community, but given the

⁵ Warnick, “Analogues to Argument,” 269.

various stakes involved in biotech enterprise, this is rarely the case. Instead, a person will use analogies to other, more familiar, sciences to make sense of biotechnology and transhumanism. If that fails, some turn to science fiction.⁶ As a result, some percentage of the population will form views on transhumanism based on science fiction novels and films rather than what “experts” say. The public also receives information from news coverage acting as a mediator between the scientists and the community. Despite the public’s high sophistication regarding “the range of issues they see as relevant to the evaluation of a risk”⁷ the relationship between science, media, and the audience is tenuous. Scientists too often subscribe to the “deficit model,” assuming that public hostility toward science is due to ignorance regarding the facts, and instead of trying to rectify the knowledge discrepancy, wish to maintain a privileged status over the public.⁸ The media amplifies this problem in two ways: by supporting science’s hierarchical advantage by only quoting scientists in articles and, as Huxford argues, by framing discoveries in a way that cues fear schema in the audience.⁹ The public is ready and willing to engage in discussion about biotechnology and transhumanism; unfortunately, this desire is often hindered by the failure to receive appropriate information in a meaningful way.

A number of studies in the field examine what happens within the public once it receives biotechnology information. Priest notes a population’s tendency to fragment into five distinct groups based on their beliefs regarding how biotech should be employed

⁶ Priest, “Structuring Public Debate on Biotechnology,” 175; Priest, “Information Equity, Public Understanding of Science, and the Biotechnology Debate,” 45.

⁷ Priest, “Structuring Public Debate on Biotechnology,” 167.

⁸ Moore, “Public Bioethics and Public Engagement,” 198–199.

⁹ Huxford, “Framing the Future,” 191.

and who should be making policy decisions regarding its use: true believers, utilitarians, moral authoritarians, democratic pragmatics, and ethical populists.¹⁰ Unwavering support of transhumanism exists within the true believer category. Backing for advanced biotechnology deteriorates as the continuum moves toward ethical populists who see the risks of biotech as high and the benefits low.

Other research has examined the problematic nature of the public adopting specific metaphors to generate meaning—for example, likening DNA to a blueprint.¹¹ This is an important finding when considering the language of transhumanism because many of the symbols and metaphors used in communicating transhumanist criticism and support stem from collectively known examples like framing genes and traits as fitting into a “genetic jigsaw puzzle” or conceptualizing the body as “a machine.” Viewing bodily components in this manner makes it more difficult to contest “upgrading” individuals.

Once the public has an understanding of science, the technology itself can become the catalyst of a social movement through the mobilization of support, the imagination of future scenarios, a multitude of projects with the same fixed goal, the ability to shape perception in the public sphere, and followers competing for money and attention.¹² Based on recent advancements in genetics and robotics, the rapid growth of the transhumanist ideology evinces this development.

Finally, research regarding the public understanding of science often presents ways in which the information dissemination process can be improved. One suggestion

¹⁰ Priest, “The Public Opinion Climate for Gene Technologies in Canada and the United States,” 63–64.

¹¹ Condit, “How the Public Understands Genetics,” 170.

¹² Bauer, “Public Perceptions and Mass Media in the Biotechnology Controversy,” 6.

is that reporters stop relying so heavily on insider sources and begin quoting the general public in news stories. Offering quotes solely from scientists “results in journalistic inclusion of powerful voices that demand action and attention but in effect disempower others. Those who speak out most loudly on controversial issues are not always representative, especially of moderate opinion.”¹³ The public is left without a voice in media coverage of science and the general thoughts and concerns of the people are not given the same exposure as expert commentary. The result is a population uninterested in science because the media deems the sentiments of the public irrelevant.

The media will continue to play an important role in generating meaning for the lay-audience, so responsible and even reporting is a must. Without it, the public may turn to other sources, such as science fiction, for its conceptualization of biotechnology or is forced to rely on only one side of the debate for information, resulting in an unstructured and inchoate understanding of the material and possible consequences. Condit calls for the reevaluation of the metaphors currently in use in the biotech debate and recommends that society move past staged debates and lip-service deliberations to get to real dialogic discourse.¹⁴ In hopes of generating open discussion, other communication methods suggested by scholars include relying more on computer-mediated messages to engender meaning¹⁵ and gradually shifting away from expert-centered discussion to “proper talk”—an advisory body consisting of informed, critical members of the public and biotech industry experts communicating openly about advanced technologies.¹⁶ These improvements are necessary if biotechnology is ever going to fulfill its duty of

¹³ Priest, “The Public Opinion Climate for Gene Technologies in Canada and the United States,” 69.

¹⁴ Condit, “How the Public Understands Genetics,” 177.

¹⁵ Miah, “Genetics, Cyberspace and Bioethics,” 414.

¹⁶ Moore, “Public Bioethics and Public Engagement,” 205.

encouraging “the production of whatever public moral argument may be necessary for understanding and dealing with both the benefits and burdens associated with this progress.”¹⁷ This open deliberation is vital to the acceptance or prohibition of transhumanist technology as failure to thoroughly consider all outcomes may lead to irrevocable changes to humanity.

Critics evaluating the ethics of transhumanism have mainly done so by framing it in the context of biotechnology. While there is much commonality between transhumanism and biotechnology, critics should be wary of using the two interchangeably, as the former is more aptly defined as an ideology rather than a type of science. Regardless, many of the ethical insights prescribed onto biotechnology are applicable to transhumanism, a helpful connection given the lack of scholarly analysis of strictly transhuman ethics. One can begin to see the framework for an ethical understanding of transhumanism by extending research on bioethics and public understanding of science. In an example mentioned above, Miah argues that the current system of communal knowledge generation places the public in a subservient position to science due to its separation from the technology.¹⁸ His proposal for a more engaged public involves heavier use of computer-mediated messages hypothesizing that such a shift in delivery medium could offer “a kind of leisure space where people experience some extended sense of intimacy or agency.”¹⁹ The Internet offers a common ground for idea convergence and acknowledgement, without implied privilege, allowing open discourse and encouraging an engaged public to participate in a vital discussion. Some

¹⁷ Hyde and King, “Communication Ethics and Bioethics,” 163.

¹⁸ Miah, “Genetics, Cyberspace and Bioethics,” 416.

¹⁹ *Ibid.*, 414.

transhumanists have already adopted this strategy: one of Kurzweil's websites, www.kurzweilai.net, features forums, chats, blog post commenting, and other online communication tools spurring visitors to discuss various aspects of transhumanism.²⁰ Similar places will be necessary to facilitate constructive deliberation on transhumanism once an informed public is created.

Bioethics observes the intersection between science, technology and morality, addressing issues ranging from the details of informed consent to transhumanism. Research examining this genre can render valuable insight on potential guidelines for the transhumanist debate. As previously mentioned, Moore advocates for the adoption of “proper talk” while Hacker and Morgan advise on interactive bioethics designed around a dialogic ethical resolution. Channeling Buber's “I-Thou” relationship, Hacker and Morgan recommend this approach as a method of galvanizing “discussion, deliberation, and debate in rational and inclusive manners” and “positive attitudes of communicators toward each other and the constant goal of making social interaction a fully interactive rather than transmitting process.”²¹ Extrapolating the communicative best practices and shortcomings scholars have found about bioethics to transhumanism suggests the public is simply not engaged enough with the issue, virtually or in reality. For better or worse, the decisions about transhumanist biotechnology affect all humanity, problematizing the public's outsider role in deliberation up to now.

Building off of Burke's definition of man as being “rotten with perfection,”²² Hyde assesses bioethics through a phenomenological lens concentrated on three

²⁰ Warnick, “Rehabilitating AI,” 162–167.

²¹ Hacker and Morgan, “Boundaries in Genetic Research,” 14.

²² Burke, *Language as Symbolic Action*.

ontological components of existence: the aforementioned desire for perfection, the need for acknowledgement, and the call of conscience. It is this trio of existential human elements forcing humanity to be “those creatures faced with the ever present challenge of ‘getting things right,’ ‘making things better,’ ‘improving’ ourselves and others, being as ‘complete’ as we can be as we grow, mature, and become wise with experience.”²³

Transhumanism offers a vision of completeness unprecedented in the history of humanity; its appeal should not be surprising. The urge and the means to achieve a more “perfect” existence do not justify unethical action, making the possibilities tantalizing and extraordinarily complex. Bioethics’ role is to eschew simplified, dichotomous choices and “enhance autonomous decision-making by patients and research subjects, and thus to improve communication about important components of those decisions in order to promote improved health for current and future patients.”²⁴ In the context of Hyde’s research this mandate is directed toward medical choices, but is easily applied to transhumanism.

An additional critical approach to biotech and bioethics that may prove fruitful for engendering transhumanist deliberation is the implementation of narrative in ethical decision making.²⁵ Similar to epistemological science fiction, a narrative methodology to bioethics translates abstract principles into a practical basis for decision making and can be “a tool for assembling the data of moral experience to help evaluate proposed ethical solutions.”²⁶ Barton recommends the narrative framework within a hospital setting, but it can be transferred over to ethical considerations regarding transhumanism, especially

²³ Hyde and King, “Communication Ethics and Bioethics,” 161.

²⁴ *Ibid.*, 167.

²⁵ Barton, “A Narrative Approach to Bioethical Decision Making.”

²⁶ *Ibid.*, 504–505.

considering that the public already relies on science fiction to ascribe meaning to the speculated advances in biotechnology.

Cyborg Bodies and Genomics

The reconceptualization of the body as a cyborg entity—an amalgam of robotic technology and flesh—and what that combination would mean for existence and notions of humanity, rose to scholarly prominence with Haraway’s groundbreaking work on the topic.²⁷ Over the two decades since her writing, technological advancements have pushed humanity closer to the actualization of cyborg life, and as Haraway predicts somewhat ironically in her essay, perhaps disrupting the political and societal dominance perpetuated by hetero-normative, patriarchal oppression.²⁸ In the continued scholarly exploration of the consequences of robot integration into human bodies, a number of critical approaches have been taken to further expand understanding of the concept of cyborgs, including: the impact of cybernetics on American origin mythology, addressing concerns about the safety and ethics of cyborgs, and how to overcome the existing heuristics that equate cyborgs and artificial intelligence to doomsday scenarios and human extinction.

By reconstituting the cyborg within the American hunt and hunter mythology, Rushing and Frenzt address a number of issues regarding robotic existence. Cyborgs are positioned as the third, and final, phase of the American hunter, an offspring of modernist thinking and technology.²⁹ The technologically enhanced hunter comes into existence following the success of the frontier hunter: desiring more control over nature, man

²⁷ See Haraway, *Simians, Cyborgs, and Women*.

²⁸ *Ibid.*, 157–164.

²⁹ Rushing and Frenzt, *Projecting the Shadow*, 5.

builds technology to help achieve his goal, without the spiritual guidance that aided his previous incarnations—the Indian and frontier hunters. At first, the technology is simply a tool. The cyborg quickly, and uncontrollably, evolves into its own being, and judging its creator to be inconsequential, either destroys or dismisses him.³⁰ Central to Rushing and Frenz’s argument is that this common science fiction theme overlooks an important alternative outcome: the cyborg hero. Transhumanists would likely share this viewpoint, while opponents of transhumanism gravitate toward the worst case scenario of human destruction at the hands of uncontrollable technology.

Despite its ancillary role in their criticism, Rushing and Frenz’s depiction of modernism as the ideological framework necessary for the arrival of the cyborg hunter is remarkably applicable to the rhetoric and ethics of transhumanism (covered in greater detail in the following chapter). Replacing the cyborg with a genetically enhanced individual (setting aside for a moment the argument that the two may not be mutually exclusive), the end result of modernism sounds strikingly like a criticism of transhumanist ethics: “Its supreme achievement is scientific technology, the most perfect method yet invented with which to bring nature under control...the modernist Thinking Man was guilty of the classic sin of hubris, or overweening pride, that always leads to the mythic hero or king to overstep his bounds, to subjugate and attempt to destroy all that is not himself.”³¹ The compelling modernist-transhumanist parallel ends here, though: interestingly, critics of transhumanism seemingly eschew academia’s response to modernism—postmodern criticism—in their assault against the transhumanist ideology, instead relying more on the attempt to reestablish meaning through moral appeals rather

³⁰ Ibid., 66.

³¹ Ibid., 13.

than deconstruction. In avoiding postmodern criticism, anti-transhumanists sidestep a lamentable result of postmodernism: deconstruction without any solutions on how to rebuild. According to Rushing and Frenzt, the cyborg hero is capable of lifting society from a postmodern malaise; for transhumanism's critics it is the sanctity of human nature, that innate and intangible yet extant component of existence calling all to act ethically toward one another that is the savior.

Quite often in cyborg research scholars assert that humanity is already more cybernetic than it imagines itself to be, a belief widely shared by transhumanist supporters. Using an early Burkian lens to gauge the potential of cyborg life, Pruchnic reiterates Burke's critique that humans have already begun the transformation into machines through the "uncreative and mechanistic nature of human labor" and the ability to "control the science of cybernetics."³² Ultimately, the difference between human and cyborg for Burke was the formers' affective capabilities that could never be matched by artificial intelligence. Whether this remains the case in the near future is to be determined. Of particular note in his analysis of Burke and cyborgs, Pruchnic identifies a connection between rhetoric and cybernetics, arguing that both can be defined as attempting to influence, control, and overcome limitations of the outside world.³³ The same holds true for transhumanism.

Case studies within the literature present various ways of reinventing human's understanding of the body in its current form, and as an inorganic entity. For example, O'Riordan identifies a shift away from digital to biodigital bodies in the science fiction films *Tron* and *Tron Legacy*, speculating that as this concept of the body continues to

³² Pruchnic, "Rhetoric, Cybernetics, and the Work of the Body in Burke's Body of Work," 276.

³³ Ibid., 289.

proliferate in science fiction it will become as socially normative in the near future as avatars are in current society.³⁴ Biodigital bodies offer a key difference to their digital predecessors: the ability to be disseminated in both virtual and real existence. An individual may be able to share his avatar through computer-mediated communication, but with the completion of the Human Genome Project, a person may soon be able to take the makeup of his body, turn it into a digital file, and share it with anyone. This perspective leads to “a decentering of the human as the central point of agency” and points “to mechanic, augmented, and distributed agency.”³⁵ The human body now conceived is but a controllable and customizable vessel designed to allow humanity to reach a more complete and lasting existence; this sentiment is also at the core of transhumanist ethics.

If cybernetic technology calls for a redefinition of the human body, the same is true of genomics. Humans must now consider the role of DNA in the internal perception of self and being. Scholars are interested in researching the effect of the digitization and malleability of DNA on humanity’s understanding of itself, which is then appropriated by supporters and critics of transhumanism to advance concepts like human dignity and nature. One approach to elucidating the phenomenon of comprehending existence based on DNA is to analyze the technology that already offers this ultimate self-reflexive ability, specifically the completed Human Genome Project. In Hacker and Morgan’s discussion of the project’s implications, they simply state that the findings “have led to challenges of historical and traditional ways that humans have organized themselves.”³⁶

³⁴ O’Riordan, “Revisiting Digital Technologies,” 295.

³⁵ Ibid.

³⁶ Hacker and Morgan, “Boundaries in Genetic Research,” 3.

The primary fear with genomics is misusing genetic data to segregate or reduce individuals by genetic determinism. To alleviate this fear, Hacker and Morgan proffer moving past current concepts of race and grouping when discussing genomics to an interactive bioethical method. As a species familiar with relying on cultural clues to guide judgment on biological concerns, humanity must maintain this communicative tradition when deliberating on the role of genomics in society and not allow scientists invested in the process to dominate discourse.³⁷

One consequence of the increase in knowledge and importance of DNA is genetics' shift from science to an ideology that provides "a way of thinking and knowing the world."³⁸ By being identified as the key to an individual's existence, the human genome becomes the backdrop for evaluating choices and behaviors, thus creating a sense of genetic determinism calling into question notions of free will and environmental influence, two elements of life that transhumanists wish to control. As a result, humanity is obsessed with "gene surveillance," yet for the most part cannot act on anything uncovered because modification is not currently technologically feasible, thus decreasing fulfillment and contentment with life and body. The obsession with knowing one's own gene makeup is problematic, argues Silva, because it motivates individuals to expose the truth and knowledge hidden within the genes without pausing to consider if it is ethical to do so.³⁹ This need for more information should not come as surprise given human's desire for perfection, but does produce negative consequences: for example, "the discourses of genetics and reproductive technologies work to redefine what it means to be

³⁷ Ibid., 15.

³⁸ Silva, "In the Beginning Was the Gene," 101.

³⁹ Ibid., 113.

healthy and to be a responsible person from a genetic standpoint.”⁴⁰ Questions start to appear in the discourse about whether or not it is ethical to abort a fetus after discovering a serious birth defect in utero or, from a transhumanist perspective, whether or not it is unethical to choose not to genetically improve offspring in an enhanced world. These questions exist more on the current fringe of biotechnology but, as information about the processes becomes more widespread and the appeal of genomics escalates, the marginalized ethical positions may become more normative.

Rhetorical Criticism and Transhumanism

Given the technological, rhetorical, and ethical controversy surrounding transhumanism, it is somewhat surprising that more communication scholars have not critically accessed the ideology and its artifacts. Warnick’s rhetorical criticism of Kurzweil’s *Age of Spiritual Machines* is one exception. In it, she offers a close reading of a popular text emerging from the transhumanism debate. Interestingly, in addition to examining the rhetorical strategies implemented by Kurzweil, Warnick also analyses the rhetoric of some of the transhumanist’s strongest critics. The artifact is primarily focused on artificial intelligence, but the style of criticism can be applied to the other facets of transhumanism. One particularly compelling insight is Warnick’s description of how Kurzweil rhetorically reconstructed the phrase “artificial intelligence” to erase many negative connotations.⁴¹ It is easy to imagine a similarly astute observation being applied to the term “transhumanism,” either in discourse or science fiction.

The biotechnology debate is rife with rhetorically significant artifacts. Hyde analyzes a more conservative ideology in his rhetorical critique of the President’s Council

⁴⁰ Ibid., 117.

⁴¹ Warnick, “Analogues to Argument,” 152.

on Bioethics and its chairperson, Leon Kass. He notes that Kass' use of ambiguous language in describing ontological components of human existence such as "the giftedness of life" enables the council to distance itself from "simply being seen as an agency of conservative thought and religious right tendencies."⁴² This rhetorical strategy allows Kass to answer his critics by justifying his choice of language as engendering the "call of conscience" even if, as Hyde suggests, it registers as inauthentic given Kass' propensity for conservative moralizing and hyperbolic prophecy.⁴³ By the end of Hyde's critique, Kass and the council he chairs are shown to be too close-minded to the possibilities of nature, existence, and otherness, a resoundingly unethical position.⁴⁴ The following chapter contains further elaboration on the rhetorical strategies implemented by transhumanists and their opposition.

A number of critics remain suspicious about transhumanist rhetoric. Hayles views it as decontextualizing and reliant on over-simplification of individualist and capitalist ideals.⁴⁵ In addition, she offers salient reminders to not forget the motives behind the rhetoric of transhumanism and measure claims of inevitability and futuristic promises with a critical perspective. In an attempt to keep the research grounded in reality, lest speculation grow too rampant, Hayles cautions: "Whether or not the predicted future occurs as it has been envisioned, the effect is to shape how human being is understood *in the present*."⁴⁶ The reader should not lose sight of the fact that enhancing a human body is not as simple as transhumanists' language suggests and their rhetoric

⁴² Hyde, "Perfection, Postmodern Culture, and the Biotechnology Debate," 33.

⁴³ Ibid.

⁴⁴ Ibid., 36.

⁴⁵ Hayles, "Wrestling with Transhumanism."

⁴⁶ Hayles, "Computing the Human.," 132. Emphasis in original.

should reflect this complexity. She concludes that because science fiction is generally more pessimistic or restrained about biotechnology, the genre should attempt to offset some of the flourishing optimism emerging from transhumanist rhetoric, in addition to serving as a medium for public understanding of science. This thesis modifies her argument slightly, suggesting that science fiction mitigate the rhetorical tension between progressive and conservative biotech ideologies by creating a new, and easily understood, middle ground to host constructive deliberation on how humans should approach transhumanist technology.

Critics have also taken a more granular approach in their rhetorical analyses of transhumanist artifacts. In an attempt to move away from using the term “eugenics,” Wilkinson argues that the word carries too many negative connotations to be helpful to either side in discourse. Instead, it evokes emotional responses that limit rational thought in a time when it is needed most.⁴⁷ The use of highly provocative language inhibits ethical deliberation on biotechnology and, Wilkinson concludes, should be avoided at all costs. This finely tuned style of research serves as an additional framework for critiquing the ethicality of transhumanist rhetoric as the discourse from proponents and critics often features overly inflammatory language.

One final approach to rhetorical criticism in the literature is the evaluation of metaphors in the discourse. Metaphors play an important part in conveying meaning and generating understanding of biotechnology and transhumanism. Despite their utility, the use of metaphors can also be precarious, as noted by Ryall, especially when implemented by the media. She observes an analogous situation occurring in the sports media where

⁴⁷ Wilkinson, “‘Eugenics Talk’ and the Language of Bioethics,” 470.

athletes' bodies are now machines and their minds computers, and any improvement is seen as an "upgrade."⁴⁸ The media will even take the use of metaphor to dehumanizing extremes, referring to athletes, often endearingly, as "freaks".⁴⁹ She concludes with the idea that biotechnology has the potential to create individuals that do not conform to commonly held conceptions of humanity, challenging society to "examine our beliefs about humans and human identity."⁵⁰ In order to understand what is happening to existence, metaphors are quickly invented to provide meaning. Unfortunately, in the case of transhumanist discourse, some may do more harm than good.

This literature review highlights a number of methods communication scholars have taken when evaluating various aspects of biotechnology, including its rhetorical significance and ethicality. Taken as a whole, the presented research serves as a foundation to support a venture into transhumanist rhetoric and ethics, a step that only a few scholars have made up until now. In the remainder of the chapter I present the argument that science fiction is a viable solution for overcoming the rhetorical stalemate hindering the transhumanist debate. Through transitional and translational rhetoric, the genre encourages the audience to challenge the current status quo with the creation of a new space distanced from reality. In the case of transhumanism, the *Beggars* trilogy implores the reader to avoid the normative "support or oppose" binary that paralyzes constructive progress, instead opting for a dialogic, and open, ethical approach to discussion. In order to make this claim, science fiction's critical credentials must be evaluated and vetted; this topic is addressed in the subsequent pages.

⁴⁸ Ryall, "The Language of Genetic Technology," 367.

⁴⁹ Ibid., 369.

⁵⁰ Ibid., 370.

Science Fiction, Transhumanism, and Rhetorical Criticism

Science fiction as a genre is rhetorical in that it can be used to elevate the transhumanist dispute in a more constructive, dialogical direction through improved public understanding of science and a new symbolic appreciation of biotechnology leading to a more tolerant perspective. As previously stated, science fiction's rhetoric is both transitional and translational; it constitutes new meanings for reality by distancing itself from the real world, yet maintains plausibility. The distance generated between reality and fiction is great enough so the author and audience avoid full identification with specific causes and ideologies but not too large to hinder making connections between the constructed and actual worlds. Situated on the boundaries of what is seemingly technologically possible, science fiction avoids classification as mere fantasy and preserves its translational potency. By being, at the very least, marginally accurate, science fiction retains its legitimacy as a vehicle for disseminating scientific information and criticism. As the genre incorporates new technologies into its established themes, a normalization process occurs. Over time, what was once new becomes well known in both the science fiction canon and public knowledge. This process explains why *Brave New World* is mentioned continually in essays, books, and media stories on genetic engineering and, to a lesser extent, transhumanism: the themes of Huxley's book are so deeply embedded in popular culture that a mere mention of the title carries significant rhetorical impact. The normalization effect of science fiction solidifies the genre's robust production of compelling rhetorical artifacts. The critic is not left wanting when searching for a text that offers insight and perspective on transhumanism and its potential role in humanity's future.

Increasingly aggressive technologies are rapidly approaching—with some already here—affording neither side the time to traverse the rhetorical quagmire at the current reluctant pace. The public cannot wait for impartial judgment from the partisan experts; if it is to make a decision about its own future, the debate must shift into the public sphere quickly to allow all sides to be informed, heard and discussed as required by a democratic society. Unfortunately, the individuals usually looked upon for guidance are obstructing dialogic deliberation. The stage is set for humanity’s greatest collective decision: “Everyone seems to accept that something new is happening, centered around emerging prospects for changing humanness, for steering its future, through the achievement of new levels of direct control over physical and cognitive performance of human beings...”⁵¹ Science fiction can aid in answering this call.

Within the overarching concepts of translational and transitional rhetoric, three elements emerge revealing why and how science fiction is an appropriate method for repositioning the transhumanist debate within the public sphere: the first characteristic is science fiction’s epistemological potency; its power to create knowledge comes from the two other recurring elements, the use of metaphor to challenge established mythology, and the disruption of traditional power structures through symbolic criticism.

If rhetoric is viewed as epistemic,⁵² then the rhetoric of science fiction also functions as a creator of knowledge. In his argument for science fiction’s epistemic value, Hanley offers the following consideration:

Suppose something marvelous occurs, which is established as contrary to our current understanding of the laws of nature. Then we have two choices: either

⁵¹ Allenby and Sarewitz, *The Techno-human Condition*, 20.

⁵² Johannesen, *Ethics in Human Communication*, 42.

accept that it is a miracle, requiring supernatural explanation; or else revise our understanding of the laws of nature...we know too well from past experience that our understanding of nature is limited, so any occurrence, no matter how marvelous, at most ought to send scientists back to the drawing board to come up with better natural explanations.⁵³

Science fiction's value, then, is derived from its ability to create plausible answers for previously incomprehensible or nonexistent occurrences or technologies, or returning to the above quote, acting as the catalyst that sends scientists back to the drawing board to expand natural, scientific, and technological knowledge. The genre relieves philosophical, social, and political tensions by offering fictional, yet realistic, accounts of what the consequences may be for present and future actions.⁵⁴ Transhumanist technology may not exist yet, but the imagination to prophesize on how enhancing humans might unfold certainly does. Exposed to little actual information about advanced biotech, this speculation eventually becomes accepted knowledge within the audience. Novels promoting an ethical and dialogic perspective on the transhumanism debate are essential because they provide an alternative ideological framework better suited to resolve the conflict over transhumanist technology than texts emerging from the opposing factions.

The public is not concerned with the technical elements of transhumanism; it will consider the possible risks and benefits before it contemplates how science is able to specifically target sections of DNA. Science fiction can take abstract elements of biotechnology and transform it into something more concrete and accessible for the

⁵³ Hanley, "Miracles and Wonders: Science Fiction as Epistemology," 336.

⁵⁴ Russell, *Communicating Science*, 274.

greater population. For example, the information uncovered by the Human Genome Project is hieroglyphics to the majority of citizens, so it falls on the shoulders of the scientific community to package it in a sensible way to the public.⁵⁵ These informative messages are rare, however instructive they might be, as scientists either lack the communicative and rhetorical skills to disclose the essential knowledge in a discernable manner or believe the audience is too ignorant to understand. Evidence for science's inability to effectively articulate messages to the lay population is provided by the existence of bioethicists and the growing field of public understanding of science research. Although a reductionist generalization, scientists' utilitarian approach to research often calls for translation into a more approachable language; if this were not the case, then the public would always understand science and would not need to rely on bioethicists to unravel difficult moral dilemmas. Regardless of how information is disseminated—via science journals, bioethical critiques, or science fiction—it is vital that it reaches the greater population in some manner to encourage informed debate within the public sphere.

Science fiction's epistemological capabilities have an evident effect on the creation of meaning for a number of emerging biotechnologies. Cloning is one pertinent example. Long before Dolly, the idea of what a clone "meant" was already widely held by the public. That understanding, whether positive or negative, accurate or erroneous, was created before the actual introduction of the technology, possibly through encounters with cloning in science fiction. Intentional or not, the genre's narrative structure and archetypal motif of presenting the future as a potential reality encourages the construction

⁵⁵ Cooke, "Milestone for Humanity," in Messina, *Biotechnology*, 8

of misrepresented “facts” and misconceptions about cloning.⁵⁶ In building compelling stories involving clones, science fiction generally presents the cloned individual or the effect of cloning, either personal or societal, as experiencing a negative consequence because of the reproductive choice. The simple explanation for this trend is that conflict makes for a more intriguing narrative and publishers promote novels that the public finds interesting. The negative outcome reifies in public consciousness, creating a scenario where a cloned sheep leads to thoughts of human cloning hatcheries, warehouses of mechanical wombs housing the same individual, and a horde of Hitlers taking over the world.

Knowledge engendered through science fiction need not be negative, however unpleasant the previous example. Taking a different approach to the genre’s epistemology, Pinsky notes: “Science anticipates the future. Science fiction *writes* the future.”⁵⁷ In this role of creating what is to come, science fiction is positioned as a narrative construct “that most often asserts itself, at all but its most theoretical levels, as Truth.”⁵⁸ The future is unavoidable, forever calling humanity toward it. Science fiction, therefore, is a response to this call, one that produces meaning in individual and communal existence and alleviates anxiety about the unknowable future by forcing the consideration and engagement of ethical dilemmas before they occur in reality.⁵⁹ As a result of the genre’s imagination and prophecy the speed at which dialogical space is created for the transhumanist debate increases.

⁵⁶ Pence, *Brave New Bioethics*, 70.

⁵⁷ Pinsky, *Future Present*, 13. Emphasis in original.

⁵⁸ *Ibid.*, 14.

⁵⁹ *Ibid.*, 23.

One way science fiction achieves its epistemological impact is through the use of metaphor. Lakoff and Johnson argue that reality is structured by metaphor and created through the use of language to construct meaning from shared, communal experiences, rather than the world shaping the language used to describe it.⁶⁰ Furthermore, they posit that metaphor “provides us with the means to make connections and links between abstract and concrete concepts and reflect upon these concepts; so an understanding of these abstract concepts is based on an association with tangible perceptions and experiences.”⁶¹ When confusion over the consequences of biotechnology overwhelms the audience, the public will turn to familiar metaphors to provide an explanation, the most common being Frankenstein’s monster and Huxley’s novel *Brave New World*. Linking biotechnology to symbolically loaded metaphors can have lasting effects, for better or worse, on the public’s perception of science.⁶²

Science fiction creates the language by which society understands future technological advancements, yet is temporally and contextually bound to the era it is produced: “Cultural production and scientific ‘truth’ are inextricably connected, and since cultural production is tied to a particular historical context, so must any Law of Science account for how it might be articulated through *techne*...The disposition of future possibility can only be manifested through the social and linguistic standards of its cultural situation...”⁶³ Put another way, science fiction may speculate on the future, but the text originates within the societal power structures and hegemony of its era of production. Russell highlights this phenomenon by tracing how the themes of American

⁶⁰ Lakoff and Johnson, *Metaphors We Live By*.

⁶¹ Ibid.; Ryall, “The Language of Genetic Technology,” 363.

⁶² Pence, *Brave New Bioethics*, 70.

⁶³ Pinsky, *Future Present*, 84.

and British 20th century science fiction changed to coincide with the shifting Cold War political landscape.⁶⁴ In her analysis of *Alien* and its sequel *Aliens*, Rushing argues that postmodern science fiction can escape the shackles chaining it to contemporary power structures and challenge dominant societal and political influences.⁶⁵ Her examination of the films reveals how science fiction modifies the American origin myth and destabilizes the patriarchal values the nation was founded upon.

Furthermore, the myths and metaphors utilized in science fiction simultaneously inform the public and suggest it choose sides on an issue. Gunkel states: “Understood in this fashion, science fiction constitutes something like contemporary parables or myths that articulate, often in very melodramatic terms, the various antagonisms and binary oppositions that comprise the contemporary situation.”⁶⁶ The narratives in science fiction elicit an either-or approach from the audience; this scenario makes for compelling conflicts within the text but, given the genre’s epistemological potency, is often problematically divisive. These binaries are reconstituted by the opposing sides of the transhumanism debate to fit their symbolic and rhetorical needs, most notably the tech utopia/dystopia metaphor. The dystopian narrative is particularly common and is perhaps the most reified exemplar of the metaphorical power of science fiction, making it a persuasive rhetorical device to transmit anti-transhumanist sentiment. The archetype is well known: the egotistical scientist or society, in an attempt gain greater control, wealth, or fame creates a technology that promises tremendous power but is ultimately uncontrollable, inevitably turning on its creator and causing much destruction.

⁶⁴ Russell, *Communicating Science*, 275.

⁶⁵ Rushing, “Evolution of “The New Frontier” in *Alien* and *Aliens*.”

⁶⁶ Gunkel, *Thinking Otherwise*, 8.

Opponents of transhumanism appropriate this metaphor to achieve their communicative goals in the ongoing battle against biotechnology. They are not at a loss for material: the science fiction oeuvre brims with works having a dystopian outlook on future technology.

The media's reliance on the metaphors of science fiction further increases the impact they have on the public, continually presenting and reinforcing common themes and tropes. An individual does not need to read the books within the science fiction canon to gain familiarity with the narratives and their symbolic ramifications. The metaphor's accessibility and approachability distance it from the science itself—largely incomprehensible to the general population—becoming more *real* to the public than the actual technology through its translational rhetorical impact, leading Ryall to suggest that “This may provide an indication as to why a reliance on a metaphor can provide us with a misconception as to how things ‘really’ are.”⁶⁷ A hypothetical example clarifies this point: after reading *Jurassic Park* for the first time, a reader bases his understanding of the cloning process on the fictional procedures in the novel, when in reality the method of cloning animals is significantly more complex and delicate. The misunderstanding of what is real continues as the media recycles the same metaphors for newer scientific discoveries. A journalist need not summarize the meaning of *Brave New World* when mentioning it in relation to biotechnology for the public to understand the connotations, regardless of what is being covered.

The dystopian narratives and metaphors of science fiction and their recurrent use in the media encourage the public to question the ethical intentions of science. This outcome is both positive and negative: the public should be informed and involved in

⁶⁷ Ryall, “The Language of Genetic Technology,” 363.

technological advances, yet too often specious information and misconceptions originating from the inappropriate use of metaphors cloud the population's ability to make rational decisions.⁶⁸ To the point about science fiction leading to misunderstandings within the population, Pence offers a number of compelling examples concerning cloning, including: "The idea that cloning re-creates personhood is one of the most egregious mistakes, but also one of the most popular because it is the most fun. It allows writers to explore various versions of me, such as the ancient good twin/bad twin theme, which John Varley used in his story 'The Phantom of Kansas' (1976), in which a woman grows to love her assassin, her jealous clone."⁶⁹ As Pence notes, suggesting that genes determine personhood is problematic in that it overlooks vital, yet impossible to recreate, environmental factors that play an important role in shaping individual existence. This recurrent theme in science fiction solidifies the belief in society that cloning entails the creation an exact replica of a person, when it only "re-creates the genes of the ancestor, not what he has learned or experienced."⁷⁰ The various ramifications of transhumanism warrant alternative metaphorical development so that the public is receiving all the appropriate information. In chapter three, I argue that Kress' use of metaphor in the *Beggars* trilogy constructs a more ethical and dialogic reality for the transhumanism debate to exist within.

An additional component of science fiction's epistemological influence is its longstanding critical tradition of problematizing power structures and social hierarchies. Applied to the transhumanism debate, science fiction can provide the impetus for

⁶⁸ Brem and Anijar, "The Bioethics of Fiction," 22.

⁶⁹ Pence, *Brave New Bioethics*, 72.

⁷⁰ *Ibid.*

unraveling the rhetoric of both sides and uncovering implicit agendas and biases.

Alternatively stated, “science fiction is the literature of cognitive estrangement.”⁷¹ The ideal result is a biotechnology literate public better prepared to examine motivations behind transhumanism and its opponents, and the risks and rewards of advanced science, eventually leading to an ethical decision regarding the matter.

This literacy occurs because science fiction, fundamentally, questions what is known and accepted in society.⁷² Underneath the layers of technological fantasy, the genre shares commonalities with Marxism, psychoanalysis, and poststructuralism, and is defined as “a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author’s empirical environment.”⁷³ In science fiction, dialects between present and future disaffect and distort the collective knowledge of central existential beliefs.⁷⁴ The genre is uniquely positioned to question the status quo while critiquing future progress, making it an appropriate vehicle to address the rhetorical and ethical deadlock stagnating transhumanist deliberation. In unraveling established meaning and metaphors held by the public, science fiction also provides new implications not yet considered by transhumanism’s supporters and opponents. It is the genre best suited for reaching a large audience and influentially instructing the population on the societal and existential risks and benefits of advanced biotechnology.

The reinterpretation of the “utopia” metaphor is one manner science fiction deconstructs beliefs and values. Kress accomplishes this in her novels by creating an

⁷¹ Freedman, *Critical Theory and Science Fiction*, xvi.

⁷² *Ibid.*, 3–4.

⁷³ Darko Suvin, *Metamorphoses of Science Fiction*, quoted in *Ibid.*, 16.

⁷⁴ *Ibid.*, 51.

ironic or false utopia. Although most works in the genre maintain dystopian narratives, it is often elements of current society being critiqued, not the idea of future progress. By shifting to a utopian discourse, science fiction still disrupts the status quo by showing the audience what it is not, but also presents a tangible goal grounded in some form of reality.⁷⁵ Utopia shifts the focus away from individual salvation and toward communal hope: a species wide dwelling place constructed as a response to humanity's ontological desire for security and comfort. The utopian existence must be situated in the future; only there can it have the critical impact to alleviate the anxiety that comes with the unknown. If it existed in the past, it would lose its effect due to obvious implausibility: why would existence devolve from utopia? By giving utopia concrete potentiality, science fiction provides the goal humanity should strive for, yet because the future is unidentifiable, cannot show the exact way to achieve the ultimate objective. As a result, flexibility for how to proceed emerges, opening space for the constitution of pro and anti-transhumanist rhetoric. Now it is time to improve the discourse that exists within this fresh opening.

The three elements of science fiction's translational and transitional rhetoric described above normalize the narratives and myths of the genre within the public consciousness. Combining the establishment of various narratives into collective knowledge with the genre's critical significance, science fiction is the best option for creating a new public understanding of transhumanism. The benefit is a better educated public, more willing and able to take part in the democratic process of deciding which path humanity should embark upon, a policy decision that must be made within the

⁷⁵ Ibid., 64–70.

public sphere. If the experts tasked with informing the population refuse to yield their positions, the public must look elsewhere for information and meaning, instead of being lured into the separate dwelling places at opposing ends of the transhumanism debate. Science fiction creates a more hospitable dialogical habitat for the public to engage in moral deliberation.

CHAPTER TWO:

THE RHETORIC AND ETHICS OF THE TRANSHUMANISM DEBATE

Supporters and opponents of transhumanism disagree on the key element of the ideology: the desire to change the human race through advanced biotechnology. From this starting point, each side constructs its rhetoric creating binary, divisive discourse that is at the core of the debate over whether or not humans should research transhumanist science and technology. For proponents, transhumanism is positioned as “the most promising alternative to conservative ethical systems that see human nature as something that cannot or should not be changed, an attitude increasingly in tension with technological possibilities and people’s legitimate desire to benefit from them.”⁷⁶ The proponents contend that humans will soon have the power to seize evolutionary control away from nature’s random lottery. Enhancement through biotechnology resulting in increased agency and capability is presented as the solution for overcoming the many societal and cultural problems the species faces now and in the future. Transhumanism is just the next step along humanity’s continued progress via technology.

The rhetoric of transhumanist opposition is equally dogmatic. Arguments filled with claims of hubris and appeals to human dignity are common. Lusting after the unchecked power of biotechnology will lead humanity to ethical, and eventual, species-wide ruin. Some have speculated that the risk of transhumanism’s unintended consequences is too great and not worth any sort of benefit, even suggesting that “if suites of technological enhancement of human performance come on line, the individual as we now conceptualize it may change profoundly and unpredictably, rendering

⁷⁶ Bostrom, “Transhumanist Ethics,” 1.

contingent many of the cultural and institutional structures that presuppose a particular set of virtues and beliefs about what individuals ought to do—the foundations, that is, of how we make sense of and operate in the world.”⁷⁷ If the very way humans view, understand, and exist in the world is threatened by transhumanism, then there can be no greater global issue at hand.

Rhetoric and ethics are closely linked; nowhere is that more clear than in transhumanist rhetoric. Johannesen suggests a framework of “rhetoric as epistemic, rhetoric as generative of knowledge” and that “the only meaningful reality for humans is a symbolically, rhetorically constructed reality.”⁷⁸ Humans interact with their environment and disclose the truth of that encounter through rhetorical, symbolic, and constructive communication. Ideally, disclosure occurs in an ethical way, as both rhetoric and ethics are “judged on a right-wrong dimension” due to “possible significant influence on other humans” through consciously chosen communicative means to reach an end.⁷⁹ Scott contends that the rhetorical invention of contingent truths is a response to an uncertain world allowing humanity to face the unknown with ethical action guided by tolerance, will, and responsibility.⁸⁰ Ethical communication is that which upholds the freedom of others, never dehumanizing, restricting, or utilizing people as objects necessary to reach a goal. Transhumanist rhetoric, as will be addressed below, centers itself on the idea of freedom. But by also advocating for human enhancement, and thus implicating that current humanity is somehow insufficient, the ideology is often criticized for proposing an ethic of dehumanization and restricted choice.

⁷⁷ Allenby and Sarewitz, *The Techno-human Condition*, 108.

⁷⁸ Johannesen, *Ethics in Human Communication*, 42.

⁷⁹ *Ibid.*, 2.

⁸⁰ Scott, “On Viewing Rhetoric as Epistemic,” 16.

Rhetoric not only creates meaning, it also reveals ideology. In linking “ethics” to its etymological root *ethos*, Hyde argues that the relationship between rhetoric and ethics is ontological, that rhetoric allows for the construction of “dwelling places” where individuals feel safe, secure, and comfortable.⁸¹ Once situated in a dwelling place an individual is able to respond to the world, to be open to whatever it might disclose, and act in the appropriate ethical manner. The rhetoric of transhumanist supporters and detractors attempts to create such dwelling places for its audience and through that discourse discloses its beliefs, values, and desires. Both have been successful in doing so, leading to the current state of two divided pseudo-dwelling places, rhetorically entrenched and reinforced, but missing the vital component of being open to the other. As biotechnology continues to advance, the linguistic ramparts blocking public deliberation must be razed.

It is of no great surprise that two oppositional perspectives on a concept as existentially significant as transhumanism inevitably lead to factious debate over the ethical legitimacy of the ideology. With the future of humanity potentially on the line, collectively held worldviews, both progressive and traditional, are under attack. The rhetoric created to bolster or rebuke the promise of transhumanism is obviously quite pointed: in hopes of solidifying their own position, as well as attract new followers, both sides of the debate hold steadfastly to their beliefs, rarely acknowledging the validity of the opposition’s argument. I see this refusal of acknowledgment as the overarching problem created by the rhetoric and ethics of the transhumanism debate, leading to a widespread and systematic lack of openness toward compromise and the values of the

⁸¹ Hyde, *The Ethos of Rhetoric*, xxi.

other. The rhetorically immobile position taken by the pro- and anti-transhumanist factions is understandable given the species-wide ramifications of advanced biotechnology, yet the public benefit of such stanchly held positions is questionable. If humanity hopes to gain from the incredible promise of transhumanist technology in an ethical manner, compromises must be made by all involved in the debate.

If general close-mindedness is the central quandary arising from the transhumanist debate, it is buttressed by problematic rhetorical strategies emanating from anti- and pro-transhumanism language. Four reasons (two from each side) for the paucity of openness are discussed at length in this chapter. Transhumanist supporters structure their arguments for enhancement around an inherent sense of inevitability, as if the future is preordained to unfold in a biotechnologically advanced manner. Human interference with progress is considered detrimental to species survival. Incorporating such certainty into their texts undeniably strengthens the argument for enhancing, but equally undermines the overall ethicality of their position by suggesting debate is largely inconsequential. What is the purpose of discussing, regulating, or prohibiting transhuman technology if it is arriving soon with or without deliberation? Furthermore, adhering to a language rich with inevitability contradicts the fundamental transhumanist tenet of respecting an individual's personal choice on enhancing by expecting progress to occur regardless of the population's wishes or concerns.

In addition to infusing messages with an air of inevitability, transhumanist rhetoric relies heavily on the use of casuistic examples or methods. This rhetorical technique encourages "the audience of an argument on an ethical question to consider the particulars of a concrete case. The procedure is as follows: Beginning with a paradigm

case on which everyone agrees, one varies its particular circumstances so as to progressively move toward more marginal or ambiguous instances on which there is less agreement.”⁸² Casuistic methods are often used to convince people that transhumanism is not actually much different from the therapeutic measures of modern medicine. Such rhetoric also encourages trivializing or overlooking potentially important factors when contemplating more marginal positions. Instead of arriving at logical outcome “C” by way of thoughtful consideration of “A” and “B,” transhumanism would have its supporters circumvent “B” altogether, ignoring any apprehensions about the cognitive leap to point “C” by disregarding “B” because of its similarity to “A.” Transhumanism use this approach quite often when equating enhancement with therapeutic medicine. Most would agree that treating a genetic disorder like cystic fibrosis is good. Transhumanists will then suggest that most would agree that the elimination of the disorder is an equally worthwhile cause. The next step is to introduce genetic engineering as a method of effectively eradicating cystic fibrosis. By their rationale, a person who supports the treatment and elimination of cystic fibrosis should logically support enhancement. In their simplicity, casuistic examples introduce slippery slope concerns blurring the line between treatment and enhancement. Undoubtedly, this is transhumanism’s goal: to allay critic’s anxiety of enhancement by linking it to forms of therapy the public is familiar and comfortable with. This rhetorical strategy becomes dubious when legitimate concerns over the potential consequences of transhumanist technology go unheard because of the rapid progression of tangentially linked casuistic examples.

⁸² Warnick, “Rehabilitating AI,” 155.

The rhetoric of transhumanism's ardent critics also contributes to the overall lack of openness afflicting deliberation. Conservative approaches to biotechnology often adhere to ambiguous or abstract existential elements like human nature and human dignity. Lacking a uniform concrete explanation for what these concepts actually *are* benefits opponents of transhumanism: they present influential arguments based on facets of human being that may not even exist, yet are rarely questioned on their legitimacy. The near universal acceptance of the concepts of human nature and dignity permit the critic to ignore the wobbly evidential support the argument is founded upon or the dearth of any concrete evidence that the components exist. It is a rhetorical sleight of hand that arms transhumanism's opponents with an almost impregnable defense against why enhancement endangers the sanctity of human being.

A common example states that no offspring should be enhanced because it violates both basic human nature of what is species specific and human rights by denying the child's independence to make her own choices. Few would argue against these points because the idea of human nature is so ingrained within society that it rarely is called into question, despite often inadequate explanations of what it actually means. Standing behind a shield of ambiguous existential qualities does not, however, advance deliberation to a constructive point, as such rhetoric ineffectually hides hints of fear and anxiety of the unknown—a natural and acceptable reaction to a point, but not one that validates refusing to acknowledge the other.

Building off of inherent and unique qualities of humanness, critics of transhumanism imbue their rhetoric with an ontological aversion to enhancement, often seen in texts as the “yuck factor.” This appeal to the audiences' instinctive reaction is as

problematic as the use of casuistic examples for the same reasons: it advances specious cognitive leaps at the expense of factual information and legitimate objections by asking the audience for its initial reaction to the thought of a specific, often grotesque, example of genetic modification. The idea of “designer babies,” children born to parents so obsessed with vanity they would alter their offspring to fit contemporary fashion trends and styles much like clothes or accessories, is used often to evoke the “yuck factor” reaction. The claim that humans ontologically reject enhancement is unmistakably dubious as it ignores humanity’s long history of species improvement through technological and scientific advancement. Human survival, at least until the age of civilization, was based almost entirely on the ontological drive toward progress and by harnessing increasingly advanced technologies. If an inherent aversion to enhancement exists, history suggests that it stems from misinformation rather than an ontological component of human being. Appeals to inherent objections of enhancement without acknowledging humanity’s millennia long technological tradition endangers ethical deliberation by influencing audiences to doggedly observe a view human ontology that is largely of incomplete.

Before casting too negative a light on the rhetoric of the transhumanism debate, it is important to note that discourse is generally extremely useful in raising awareness of the societal, political, and philosophical implications of advanced biotech, leaving the population with much to evaluate. With a few slight adjustments to how each side acknowledges the other, pro- and anti-transhumanist rhetoric would be more beneficial to the public in how it introduced and met pressing issues in an ethical manner. Keeping this mandate in mind, a brief examination of transhumanist rhetoric is presented,

followed by the rhetorical responses from members of the opposition. The goal is to highlight constructive rhetoric from the ideology's supporters and opponents while documenting how easily the language falls victim to one of the problematic strategies listed above.

The Promise and Problems of Transhumanist Rhetoric

Undergirding transhumanist rhetoric is the belief that human nature is a work in progress and that current humanity is not the endpoint of evolution.⁸³ Fostering such a belief immediately puts the ideology at odds with many religious and secular worldviews from the outset. How transhumanists construct rhetoric around this central value reveals how open they are to opposing perspectives and their plan for acknowledgment. Bostrom states the transhumanist belief that “by the responsible use of science, technology, and other rational means we shall eventually manage to become *posthumans*, beings with even greater capabilities than present humans.”⁸⁴ Some of the capabilities projected are greatly increased lifespan, enhanced physical and mental abilities, and integration with robot intelligence. To transhumanists, these capabilities all lead to one goal: immortality, either in corporeal form, or as a virtual embodiment of consciousness.

Bostrom, and other transhumanists, emphasize the importance of human agency and a proactive approach to technological advances. The individual is rhetorically constructed to be able to truly control his or her destiny for the first time in history. Existing human comprehension is positioned as woefully inadequate: “Given that our current human mode of being spans such a tiny subspace of what is possible, it is not farfetched to suppose that there are parts of the larger space that represent extremely

⁸³ Bostrom, “Transhumanist Ethics,” 2.

⁸⁴ Ibid. Emphasis in original.

valuable ways of living, thinking, and relating.”⁸⁵ In this sense, transhumanist rhetoric encourages humanity to tap into its natural desire for exploration and progress to determinedly seek out a better existence. Utilizing technology to improve human life is one of the defining characteristics of the species. Emphasizing that tradition and imploring that it continue by proactively applying biotech to enhance humanity is a common trope in transhumanism’s language. Unfortunately, it also denigrates individuals and groups who believe that human existence maintains an acceptable status, suggesting that those who wish to preserve humanity reject their ontological urge for improvement. The implication here is that enhancing is the new manifest destiny and to deny it is to shirk the responsibilities of having free will. Stated differently, current humanity owes its ancestors the same desire and effort to use technology to improve the species, highlighting the interconnectedness between innovation and evolution. Transhumanism does not occur in a vacuum; its proponents recognize that the technological advancements made through the millennia now bring humanity to its next threshold: enhancing the body itself. But what is most likely intended as a “pep talk” to skeptics in actuality calls out the opposition for not fulfilling their duties as a human being, showing a lack of appreciation for the other.

Despite occasional lapses into potentially unethical territory, transhumanist rhetoric is keenly aware of its own ethical responsibilities and any misgivings others might have. Bostrom posits that venturing into the transhuman realm does not entail jettisoning current ethical standards. He states that transhuman values “can be our current values, albeit ones that we haven’t yet clearly comprehended. Transhumanism

⁸⁵ Ibid., 11.

doesn't say that we should favor posthumans over humans, but rather that the right way of favoring humans is by enabling us to realize our ideals better and that some of our ideals may well be located outside the space of modes of being that are accessible with our current biological constitution."⁸⁶ Framed in this manner, transhumanism links ethical improvement with biological enhancement; for example, one can better handle ethical conundrums if he or she has improved cognitive capabilities. An example of how the transhumanism debate can be more dialogic, this rhetoric eases ethical concerns because it actively engages with the other's objections.

Attempting to deflect criticisms that transhumanist technology would increase social inequality, thus creating separate classes of biologically advanced haves and unenhanced have-nots, Bostrom acknowledges the legitimacy of the concern, providing another important example of acknowledging the other side of the argument. His attempt to allay fears relies on a mixture of contemporary evidence and future speculation. He first shifts the focus away from transhumanist ethics and onto the interrogator, stating that inequality has already been vetted by modern society: "We also accept a wide range of inequalities because we think that they are deserved, or because they have social benefits (such as economic productivity), or because they are an unavoidable concomitant to free individuals making their own (sometimes foolish) choices about how to live their lives."⁸⁷ If humanity already benefits from inequality, it is hypocritical to condemn transhumanism for operating within the approved system.

Sensing the "that's just the way it is" defense insufficient, Bostrom returns to transhumanism's proactive quality to further mitigate concerns about inequality. Humans

⁸⁶ Ibid., 12.

⁸⁷ Ibid., 26.

seized control of their biological evolution; the same can be done with social evolution. Bostrom posits that “We can move to counteract some of the inequality-increasing tendencies of enhancement technology with social policies.”⁸⁸ His potential solutions for inequity include subsidized technology for impoverished families and finally possessing the necessary mental acuity to solve ongoing socio-economic problems. While it might be disquieting to some, Bostrom believes that in humanity’s current condition it is impossible to speculate on all the possibilities of transhumanism; the species’ limitations prevent full comprehension of progress in a transhuman direction. He states:

In much the same way as Chimpanzees lack the cognitive wherewithal to understand what it is like to be human – the ambitions we humans have, our philosophies, the complexities of human society, or the subtleties of our relationships with one another, so we humans may lack the capacity to form a realistic intuitive understanding of what it would be like to be a radically enhanced human (a “posthuman”) and of the thoughts, concerns, aspirations, and social relations that such humans may have.⁸⁹

In this scenario, humans must first begin their transhuman journey before the consequences and destinations are fully understood. Bostrom tries to placate critics by acknowledging their concerns and proposing outcomes that positively affect the global population as a whole, not just transhumanist supporters.

Others take a more confrontational approach when addressing the apprehensions of the other. Wanting to avoid the connection to religious faith, transhumanist rhetoric

⁸⁸ Ibid.

⁸⁹ Ibid., 2.

identifies its philosophy as a “eupraxophy.”⁹⁰ More builds off a notion of humanism “that rejects deities, faith, and worship, instead basing a view of values and meaningfulness on the nature and potentials of humans within a rational and scientific framework.”⁹¹ He views transhumanism as sharing a number of major tenets with humanism, including the belief that physiological existence should be valued over any supernatural afterlife.

Where transhumanism differs is in its view of human agency. According to More, the power to achieve a superior human life is now in the hands of humanity. He states that transhumanism recognizes and anticipates “the radical alterations in the nature and possibilities of our lives resulting from various sciences and technologies such as neuroscience and neuropharmacology, life extension, nanotechnology, artificial ultraintelligence, and space habitation, combined with a rational philosophy and value system.”⁹² This worldview provides philosophical grounding for transhumanist supporters. They are not putting their faith in an intangible entity or random evolutionary process; instead, human destiny is now something controllable. Armed with that mandate, venturing into uncharted biotechnical and ethical spheres becomes a necessity for transhumanism. In order to move forward, however, More defines those who wish to sustain humanity’s current status as lacking the agency necessary to achieve a better existence. The problem with More’s condemning language is that it renders one ideology inferior to another, creating a situation in which ethical communication between the two

⁹⁰ Defined by Max More as a “non-religious philosophy of life, plays a similar memetic role in that it is concerned to create or increase meaningfulness through a philosophical framework. In contrast to religion, eupraxophies are opposed to faith, dogmatism, ideological authoritarianism, and stagnation.”

⁹¹ More, “Transhumanism: Toward a Futurist Philosophy.”

⁹² Ibid.

groups is difficult because the rhetorically constructed hierarchy values one perspective much more than the other.

Further cementing transhumanism's position as an ethical antithesis to religion, and as a superior method of meaning construction, More dichotomizes the two ideologies as entropic and, its inverse, "extropic." In his portrayal of religion as entropic, More asserts:

The urgency of the need to replace religions with other types of meaning-fostering [systems] is all the more evident when we think of the inherent irrationalism of religion and its entropic retardation of progress...Irrationality, the rejection of our best means of cognition, is necessarily dangerous and entropic. Entropy, the loss of order, information, and usable energy, is promoted by faith.⁹³

His solution to this condition echoes the rhetoric of Bostrom and other transhumanists. Instead of striving for a higher existence handed down by a divine force, humans must strive to create their own superior reality, guided by values that promote "the most scrupulous employment of reason, science, logic, and critical thinking."⁹⁴ The end result of More's transhumanist ethics is progress toward continued expansion and improvement of life and intelligence, reached only after triumphing over current biological and ethical boundaries. The cost of More's concept of transcendence is high: the alienation and subjection of the vast, faith-based population.

By looking at larger transhumanist ethical concerns, Bostrom and More can be considered philosophical meta-transhumanists: they envision a future and speculate on how we get there with less emphasis on the actual means of reaching that destination.

⁹³ Ibid.

⁹⁴ Ibid.

Many other transhumanist thinkers take a more pragmatic approach, plumbing one particular area of biotechnology they see as particularly compelling. More granular approaches to elaborating transhumanism share the same ethical responsibilities as the wide-angle perspectives. While much good comes from imagination and speculation, the rhetoric of more focused texts is equally susceptible to unethical knowledge generation or the promotion of close-mindedness.

Perhaps the best known transhumanist thinker is Ray Kurzweil. Interested in a particular component of the transhumanism trinity, Kurzweil focuses on artificial intelligence (AI) rather than genetics. While the bulk of the research and the case study for this thesis deal primarily with enhancement through biological means, it would be a glaring omission not to mention Kurzweil in any discussion of transhumanism as his thoughts on the subject are influential.

Kurzweil's rhetoric is shaped by his belief that technological progress is itself an unavoidable evolutionary process that continues to accelerate at exponential rates: "Given the emergence of life, the emergence of a technology-creating species—and of technology—is inevitable. Technology is the continuation of evolution by other means, and is itself an evolutionary process."⁹⁵ Human development and technological advancement inexorably link in such a manner that one cannot exist without the other. Like other transhumanists, his claims are supported by anecdotal evidence, but Kurzweil's additional rhetorical potency stems from extrapolating the speed of previous technological advancements and placing that progress at the beginning of an upward exponential curve of computing power. From there, it does not involve a great cognitive

⁹⁵ Kurzweil, *The Age of Spiritual Machines*, 32.

leap to see how the speed of computing over the twenty-first century will continue increasing as the technology becomes smarter, faster, and smaller.⁹⁶ By looking at past technological advancements, Kurzweil has more than enough confirmation that the trends will continue into the future. All that he must do then is figure out what the impending future technology entails. In his mind it is the transcendence of humanity into an integrated existence with artificial intelligence.

Criticism of Kurzweil's rhetoric argues that his language too strongly promulgates a sense of technological inevitability. He shows great skill in supporting his predictions with evidence, both historical and anecdotal, so that speculation seems like a veritable certainty. Once entrenched as an absolute, the rhetoric becomes less receptive to debate, and the opportunity for compromise wanes. Ironically, although transhumanists aspire to move past religious dogmatism, their rhetoric often has the same effect as scripture. This stubbornness is only bolstered by notions of unavailability.

Inevitability arguments are widespread throughout transhumanist rhetoric, evidenced by one facet of biotech receiving considerable attention: the enhancement of humans through genetic engineering. Harris begins his defense of enhancement by establishing a philosophical justification declaring it is the responsibility of all moral agents to make the world a better place through reasoned, informed decisions about their fate and the fate of the inhabited world.⁹⁷ By creating a scenario in which the only way to a better world is through enhancement, Harris establishes choosing improvement as a moral imperative,⁹⁸ and creates a pseudo-choice for the audience: inevitable progress or

⁹⁶ Kurzweil, *The Singularity Is Near: When Humans Transcend Biology*, 69–71.

⁹⁷ Harris, *Enhancing Evolution: The Ethical Case for Making Better People*, 3–4.

⁹⁸ *Ibid.*, 19.

irresponsible, unethical living. Such a proposition hardly seems fair to transhumanism's opposition.

Harris' response to one of the sharpest criticisms of transhumanism, human hubris, utilizes rhetoric aimed to mitigate criticism through logic and reason. He is interested in turning the very concept of human egoism around on the interrogators: "There are those, and there are many, who think there are moral reasons to preserve not only human nature broadly conceived but also the human genome. They want to keep it just as it is and regard it as a sort of genocide to think of further evolution into creatures that may no longer be human in the senses in which we understand the term."⁹⁹ Yet, it is hardwired into human existence to continually evolve and improve through the use of technology; if it was not, then "humanity" still may be sharing meals with chimpanzees. Genetic enhancement is merely the next step in a species long series of improvement. Had humanity turned its back on technology during its formative years, the consequences would have been severe. Harris maintains that humans must not only proactively seek out the technology that will better individuals and society, but also "not fail to make changes that could be made which will avoid harm to future people or which would benefit them in ways that cannot be achieved unless these enhancements are put in place."¹⁰⁰ To deny either of these would confirm the belief that humanity is currently at its zenith, the ultimate act of hubris.

A common rhetorical technique utilized by transhumanists, including Harris, to support their arguments is the use of casuistic methods. This is Harris' most effective tool when supporting his argument for why humans must enhance, but it is at times

⁹⁹ Ibid., 16.

¹⁰⁰ Ibid., 80.

problematic due to misleading or manipulative information and the dismissal of legitimate concerns as being superfluous.

An example of Harris' casuistic reasoning is his redefinition of the therapeutic treatment of diseases of old age. He presents the quite familiar scenario of an elderly individual receiving some sort of medicine or cure to combat the effects of an illness to prolong and improve life. Few people would take moral issue with this; it is what is expected of the medical profession. Harris makes his casuistic move by then asking if the reader would have the same ethical acceptance of the therapeutic procedure if it regenerated or switched off the aging process altogether.¹⁰¹ The end result of both the standard medical practice and what might be considered enhancement are the same: improved existence of the individual through prolonged life, at least by medical definition. The goal of this type of interpretation is to prompt the reader to question his or her own views on the matter. The reader previously dismissing the transhumanist perspective as unethical might now see the similarities between the two approaches and reconsider his or her position. Harris concludes this particular casuistic example with the following coda: "We do not die of old age but of the diseases of old age. It is species typical of us to die of these as we normally do, but it is not necessarily necessary that we do."¹⁰² Few critics of transhumanism, though, agree with Harris' logic, as his casuistic example sidesteps rather than directly confronts the social and political steps necessary to blur the line between therapy and enhancement or the slippery slope it invites.

Transhumanist rhetoric consists of various tropes; this chapter has identified only a few of the more common ones: casuistic methods, use of inevitability, and

¹⁰¹ Ibid., 45.

¹⁰² Ibid.

dichotomizing previously accepted worldviews with transhumanism. The purpose of these rhetorical strategies is to create an ethical foundation, a “dwelling place,” that can support the transhumanist ideology when it comes up against oppositional scrutiny in the public sphere. The construction of this safe haven is important given the strident critique emerging from anti-transhumanists. Most of transhumanism’s rhetoric accomplishes this habitat production in an ethical manner, although as shown it can slither into dodgy territory by ignoring or subjugating its opposition. Public deliberation suffers the most when dwelling place construction becomes too one-sided and close-minded.

Maintaining Existence: The Rhetoric of Transhumanist Opposition

Attacks levied on transhumanist ethics emerge on a number of fronts, including spiritual, environmental, and philosophical. The objections may be grounded in different ideologies, but there is considerable rhetorical overlap among the anti-transhumanist sector, although like their debate opponents, the rhetoric often reveals a lack of openness. Similar to Kurzweil, McKibben relies on extrapolation to lend his language rhetorical significance, albeit with a reverse outlook on human existence, thus producing criticism through ironic inevitability. He begins by questioning what could happen to the world if human beings commence enhancing. Drawing conclusions from the sports world and scaling his beliefs to a global environment, McKibben fears that with radical improvement, humanity will lose the desire and mental toughness to achieve greatness and that any greatness achieved will be due mostly to the enhancements, not the individual.¹⁰³ For McKibben, humanity is good enough as is to solve the contemporary and future problems without needing to resort to biotechnology. Expanding beyond

¹⁰³ McKibben, *Enough*, 6.

current biological limitations is viewed as an act of human arrogance concealed by a superfluous aspiration to help overall existence.

McKibben bases his condemnation of transhumanists as inherently selfish on the principle that advanced biotechnology is ultimately robbing individuals of the chance to make meaning in their life based on responsible, and independent, choices.¹⁰⁴ Essentially it limits the freedom of the individual, resulting in dehumanization, an unethical outcome. Utilizing a casuistic example of his own—a pianist choosing to enhance the musical abilities of her unborn daughter—McKibben reveals how even a parent’s best intention can destroy meaning in the life of the offspring:

And the piano player’s daughter? A player piano as much as a human, doomed to create a particular context for herself, ever uncertain whether it is her skill and devotion or her catalogue proteins that moves her fingers so nimbly, her music soured before it is made. Because the point was never the music itself; the inclination and then the effort were what created the meaning for the mother. If she injects all that into her daughter’s cells, she robs her forever of the chance to make music her own authentic context...¹⁰⁵

In this circumstance the pleasure and satisfaction received from accomplishing a goal or overcoming a challenge dissolves. Bringing the example to a close, McKibben wonders how one could ever take pride in a child that behaved in exactly the same way it was engineered. Would the parent praise the child or the scientist who unerringly complied with the parents’ wishes?¹⁰⁶ The child is more of a product than a being of free will in

¹⁰⁴ Ibid., 46.

¹⁰⁵ Ibid., 47.

¹⁰⁶ Ibid., 59.

this scenario. It is unlikely that dialogic conversation could occur when one party believed the other was commoditizing human attributes.

Human enhancement will not only limit choice for unborn children, but parents as well. McKibben establishes a perverse “Keeping up with the Joneses” environment where parents are forced to enhance their children just to maintain baseline competitiveness with the rest of an improved society. Transhumanist rhetoric rests on the notion of more choice; McKibben is determined to remove this ethical footing from the opposition: “*These are the most anti-choice technologies anyone’s ever thought of.* In widespread use, they will first rob parents of their liberty, and then strip freedom from every generation that follows. In the end, they will destroy forever the very possibility of meaningful choice.”¹⁰⁷ Neither side of the debate appears willing to compromise on the amount of choice transhumanism restricts or promotes; the situation may become so intractable that the effectiveness of middle ground establishing rhetoric may be diminished by the current antagonistic positions.

As demonstrated with his attack on transhumanism’s claim to engendering greater choice, a large part of McKibben’s rhetorical strategy is trying to break down the pillars of transhumanist rhetoric. Another target is the idea that technological progress is inevitable and to avoid it is to doom the species, assertions he finds problematic. Thinking that biotechnology is humanity’s last chance at salvation soon becomes a self-fulfilling prophecy, the irony not lost on McKibben: “If we start to think this darkly, then it’s only a matter of time before the tech prophets carry the day, if only because

¹⁰⁷ Ibid., 190. Emphasis in original.

existential despair makes it hard to shake off the gloom and put up a fight.”¹⁰⁸ To combat this idea that humanity must progress or die, McKibben offers a reminder that:

We could drop the misanthropy and look at ourselves with clearer eyes. Yes, we’ve damaged the environment, we’ve enslaved our fellow man, we’ve slaughtered on a vast scale. This is the truth. But it’s not the whole truth, or even the main one. To put it bluntly, *the fight to ward off a posthuman future begins with at least a muted celebration of the human present.* People are okay.¹⁰⁹

Humans must first accept their limitations before they can begin to work on solving larger global problems. McKibben establishes a species wide persona that is capable of handling its problems without resorting to biotechnical means. But in doing so, he condones the atrocities and unethical actions that transhumanism strives to eliminate. A reasoned inspection of modern society reveals humanity is far from “okay.” McKibben’s rhetoric deflects criticism of the human condition in a hasty manner, closing his ideology off from ever improving in ways he deems “unnatural.” To encourage others to do the same is one step removed from doing nothing. Inactivity is not a viable ethical alternative to enhancement.

If transhumanist rhetoric wins out and humanity embarks down a path of unfettered enhancement, McKibben envisions existence becoming immortal and immoral. The urge to enhance will never subside, leading to the eventual endpoint of creating advancements that prolong life indefinitely. With such technology, human existence would irrevocably change. He argues that the urge to complete great tasks would vanish with the knowledge that one could always try it another day. In this

¹⁰⁸ Ibid., 112.

¹⁰⁹ Ibid., 113. Emphasis in original.

scenario, the ambition that currently drives so many to greatness vanishes. The concept of struggling to achieve a goal or sacrificing everything for a cause would disappear because “all the harmonies that make human life wonderful and special depend on the approximate shape of a human life,”¹¹⁰ and with immortality that shape no longer exists. While not explicitly mentioned in the text, McKibben’s statement about meaning requiring boundaries can be expanded to include ethics. At the immortal stage, would humans be able to look past their own continuation to be open to others? Or would the speculated loss of meaning and context lead to humanity forfeiting its ethical beacon, as well?

Taking a more hardline philosophical approach to the potentially dangerous consequences of transhumanism, Habermas fears that the ability for one to lead the “good life” will be severely compromised if biotechnology is allowed to advance much further. His pessimism derives from the perspective that enhanced humans will be unable to fully observe the “other,” leading to the deterioration of ethical conduct. In his criticism of transhumanism’s fundamental lack of openness, he argues that “the ‘right’ ethical self-understanding is neither revealed nor ‘given’ in some other way. It can only be won in a common endeavor. From this perspective, what makes our being-ourselves possible appears more as a transsubjective power than an absolute one.”¹¹¹ Habermas is questioning how enhanced humanity can act ethically if the very practice of enhancing corrodes the process by which individuals view their own ethicality. Transhumanism’s focus on personal freedom, choice, and responsibility blinds the individual from seeing

¹¹⁰ Ibid., 160.

¹¹¹ Habermas, *The Future of Human Nature*, 11.

existence as communal, preventing internal ethical evaluation and recognition of the other.

Biotechnology presents a number of additional problems for Habermas. If ethical behavior is characterized by permitting the other to act freely in making their own choices, what justification can be provided for the practice of parents manipulating the genes of their unborn offspring? Habermas castigates the very thought of modified offspring, declaring the act a violation of another's unalienable freedom: "For as soon as adults treat the desirable genetic traits of their descendants as a product they can shape according to a design of their own liking, they are exercising a kind of control over their genetically manipulated offspring that intervenes in the somatic bases of another person's spontaneous relation-to-self and ethical freedom."¹¹² The initial abhorrence felt toward genetically engineered children stems from the unfamiliarity of an unprecedented display of power over another being: "When one person makes an irreversible decision that deeply intervenes in another's organic disposition, the fundamental symmetry of responsibility that exists among free and equal persons is restricted."¹¹³ Habermas rhetorically constructs enhancing offspring as analogous to dehumanization, despite the best intentions of parents, as it becomes impossible for the engineered individual to partake in self-criticism, a key component of ethical existence. The individual would be unable to discern whether or not an action was the result of free will or his or her in utero programming. The result is an existence plagued by uncertainty about agency and the inability to reflect on previous decisions as being one's own:

¹¹² Ibid., 13.

¹¹³ Ibid., 14.

...the adult would remain blindly dependent on the non-revisable decision of another person, without any opportunity to establish the symmetrical responsibility required if one is to enter into a retroactive ethical self-reflection as a process among peers. For this poor soul there are only two alternatives, fatalism and resentment.¹¹⁴

A slippery slope emerges from Habermas' argument, though, as his definition of ethical behavior fails to elaborate on why it is unethical to permit enhanced offspring but appropriate to restrict the free choice of parents from the outset. Enhancement is a choice, and if it is prohibited, the question then becomes when it is acceptable to ban certain biological procedures and who makes the decision. Further complicating this blurry line between what is allowed and what is not is the tremendous difficulty authorities will have regulating the sanctions across the globe. In trying to resolve the enhancement problem, Habermas presents a solution that perhaps raises *even more* ethical challenges.

The concern over transhumanism's potential deterioration of ethical standards is especially noteworthy considering that most opponents of biotechnology willingly concede that there is a great allure to the idea of enhanced human existence. In Fukuyama's appeal against transhumanist technology, he admits "Given the very real medical benefits that will result from projected advances in human biotechnology...such categorical opposition is difficult to justify."¹¹⁵ In a compelling rhetorical twist, he adds the following caveat: "Biotechnology presents us with a special moral dilemma, because any reservations we may have about progress need to be tempered with a recognition of

¹¹⁴ Ibid.

¹¹⁵ Fukuyama, *Our Posthuman Future*, 84.

its undisputed promise.”¹¹⁶ Fukuyama’s rhetoric allows him to cast a wide net in hopes of appealing to a larger audience; he is aware of existing support from other anti-transhumanists, but by acknowledging there are compelling reasons to promote biotechnology, he invites a new audience to the text: those curious, but undecided on the issue. He welcomes the neophytes to the discussion by affirming the acceptability of wanting to know more about transhumanism, with the assumption being that his rhetoric will indoctrinate his new disciples against the ideology. His rhetoric carries greater impact because it acknowledges the other.

Fukuyama’s criticism is founded on transhumanism’s violation of three vital components of humanity: human rights, human nature, and human dignity. Invariably, each of these terms will surface in most critiques of biotechnology, but Fukuyama’s approach is to establish the trio as ontological components of human existence. The difficulty with this methodology is the ambiguous, or inexact, definitions of the three abstract terms. Fukuyama recognizes this precarious critical footing, and beginning with human rights, attempts to clarify how each component of human being is related. First, human rights are not to be confused with needs and interests.¹¹⁷ Second, rights emerge from three sources: divine, natural, or positivistic. Of the three, Fukuyama is most concerned with the natural, which “grounds rights and morality in nature.”¹¹⁸ Maintaining human rights becomes dependent on preserving the processes and limitations nature placed on humanity. To circumvent these natural restrictions would disrupt an element of human existence that science was never intended to encroach upon.

¹¹⁶ Ibid.

¹¹⁷ Ibid., 108.

¹¹⁸ Ibid., 112.

Evolving from the definition of human rights are the concepts of human nature and human dignity. In supporting human nature—defined as “the sum of the behavior and characteristics that are typical of the human species, arising from genetic rather than environmental factors¹¹⁹—Fukuyama concedes that his defense of the concept runs contrary to the majority of post-Kantian thinking. Undeterred, he strikes out against what he perceives to be the three major criticisms of the belief in human nature: the lack of a true universal human ethics traceable to a common nature, that an individual’s DNA does not solely determine what develops from that DNA, and that humans are cultural beings that can modify behavior based on learning, passing that knowledge on in non-genetic ways.¹²⁰ Modern science and philosophy may say one thing about human nature, but Fukuyama finds these critiques too narrow, too limited, and too focused on controversial social constructionism, respectively. He is not completely refuting the charges against human nature, simply problematizing them enough so he can continue using the construct to support his claim that there is some element of human existence shared by all that is worth preserving in the face of biotechnology.

That component of human being is, according to Fukuyama, human dignity. His strongest rhetoric is saved for the defense of this principle, yet the increased ambiguity makes it difficult to fully accept his argument. Hard to define, but ontologically apparent, human dignity *is* the part of being that presupposes all else and establishes a baseline equality for all of humanity. Human dignity comes forth from what Fukuyama colloquially labels “Factor X:”

¹¹⁹ Ibid., 130.

¹²⁰ Ibid., 133–39.

What the demand for equality of recognition implies is that when we strip all of a person's contingent and accidental characteristics away, there remains some essential human quality underneath that is worthy of a certain minimal level of respect—call it Factor X. Skin color, looks, social class and wealth, gender, cultural background, and even one's natural talents are all accidents of birth relegated to the class of nonessential characteristics.¹²¹

Fukuyama's Factor X embraces Heidegger's conceptualization of human being (*Dasein*): something that originates and exists outside of human construction, yet resides in all of humanity, and allows individuals to act ethically toward one another through responsible choice.¹²² Where this Factor X arises from is not a concern of Fukuyama; he is happy to leave that theorizing to philosophers. What is vital to his argument is that it exists equally in all human life. Factor X becomes the epicenter of humanity's moral paradigms; it continually transmits a call that all humans deserve the same ethical considerations and dignity above any other differences. Biotechnology is admonished in Fukuyama's rhetoric for threatening human dignity. He presents a number of scenarios detailing how dignity is undermined by consequences of transhumanism, such as a genetic super-class or the treatment of those who do not enhance. The purpose of these situations is to encourage a less abstract level of comprehension in the audience; moving from complex theoretical concepts to pragmatic real-world applications helps the public understand just what is at stake and draw on past associations with similar cases in other forms of media—science fiction, for example.

¹²¹ Ibid., 149–150.

¹²² Hyde, *The Call of Conscience*, 23–25; 113.

The lack of an origin for Factor X or a concrete explanation on how it operates undermines the credibility of Fukuyama's rhetoric. To believe in intrinsic qualities of human existence requires a leap of faith, and compared to transhumanist logic, reason, and science, Factor X appears overly sentimental and old fashioned, highlighting just how far the species has to go before it has a comprehensive understanding of itself. Regardless of this evidential shortcoming, Fukuyama's argument is effective because it aligns with the ideologies of many religions, meaning the public is familiar with and receptive to his rhetoric, despite having only ethereal support.

Expanding on the ideology that certain undeniable qualities exist in all humans, Habermas contends transhumanism culminates with the "instrumentalization" of human nature, which in turn changes the ethical self-understanding of the species so that it is incongruous with the "normative self-understanding of persons who live in the mode of self-determination and responsible action."¹²³ To use the common example of parents genetically enhancing their unborn offspring, a child would be judged not on her own accomplishments but on how well she is able to live up to the standards of the people who designed her. Furthermore, "In making their choice, the parents were only looking to their own preferences, as if disposing over an object. But since the object evolves to be a person, the egocentric intervention takes on the meaning of a communicative action which *might* have existential consequences for the adolescent."¹²⁴ Ethical behavior demands unfettered freedom reciprocity, yet in an enhanced world, Habermas believes this to be impossible, as demonstrated in the previous example. The engineered offspring could never exert a similar type of influence on her parents. Moreover, an enhanced

¹²³ Habermas, *The Future of Human Nature*, 42.

¹²⁴ *Ibid.*, 51. Emphasis in original.

individual cannot find comfort in one's own body knowing that any particular feature was the design dream of another human and not random chance. Habermas' rhetoric reestablishes the engineered physical body as a prison of uncertainty and discomfort rather than a dwelling place.¹²⁵

Much like Fukuyama, it is difficult to argue against Habermas' conception of human existence because it appeals to a mythology of humanness nearly universally accepted despite being impossible to prove or discredit. The irony is that with transhuman technology, humanity may formulate a better understanding of ontological entities like human nature, but may never get the opportunity to possess more than cursory knowledge of what it truly means to be human if restrictions are placed on advanced biotech. Anti-transhumanist rhetoric is forceful because it relies on previous held values and beliefs that buttress one another in the face of biological and evolutionary progress. Religion and faith mesh perfectly with the desire to preserve humanity as is. Convincing the public of the value of transhumanism requires a monumental effort to deconstruct longstanding, culturally reinforced worldviews on what makes humans *human*.

As long as transhumanists continue recommending a drastic shift in human nature by way of biotechnology, their opposition will hold steadfastly to the belief that there is something inherent in all of humanity worth protecting. The defense of human nature is one of the most widely spread rallying cries for strict regulation and prohibition of transhumanist technology. Relying on these instinctual objections to enhancement, Sandel posits that humanity's qualms arise from an ontological aversion to threatening

¹²⁵ Ibid., 57.

environments. The next step is articulating the worries eloquently. Although not stated as such, Sandel calls for rhetorical invention:

When science moves faster than moral understanding, as it does today, men and women struggle to articulate their unease. In liberal societies, they reach for the language of autonomy, fairness, and individual rights. But this part of our moral vocabulary does not equip us to address the hardest questions posted by cloning, designer children, and genetic engineering. This is why the genomic revolution has induced a kind of moral vertigo.¹²⁶

His solution, like Fukuyama and Habermas, is to turn to human nature, that component of existence that is always there, always demanding to be acknowledged, to prevail past the language inadequacy: “To grapple with the ethics of enhancement, we need to confront questions largely lost from view in the modern world—questions about the moral status of nature, and about the proper stance of human beings toward the given world.”¹²⁷ The answers Sandel seeks, and the words to disclose them, cannot be uncovered through examining the societal and economic impact of transhumanism; there is another element of existence presupposing all else that compels humanity toward evolutionary stasis: an ontological humanness too often overlooked and too infrequently disclosed.

Transhumanist rhetoric contradicts this view, stating that humans are ontologically driven to seek out improvement. History tends to side with the transhumanist’s argument.

Therefore, Sandel and other anti-transhumanists must discover the appropriate language to disclose their true belief: humans must temper the desire for evolutionary progress before irrevocable damage occurs. The slippery slope is introduced again when trying to

¹²⁶ Sandel, *The Case Against Perfection*, 9.

¹²⁷ *Ibid.*

determine at what point ontological desires are restricted and the individuals or groups responsible for making that decision.

In his argument against biotechnology, Sandel repeats many of the objections previously mentioned, including what he determines to be the erosion of human choice. If individuals are presented with the “option” to enhance or not—the consequence for remaining natural being figurative banishment to cultural and economic irrelevance, in a sense social death—there is a choice in name only.¹²⁸ Sandel’s main contribution to anti-transhumanist rhetoric is the argument that enhancement will lead to the depreciation of the individual gifts that make existence significant. If individuals believe they are responsible for their own special attributes and skills, those previously determined by random chance, the burden of that ownership becomes too great to bear.¹²⁹ Sandel employs the image of parents fretting over what type of enhancements will best suit their unborn child insecure in the knowledge that one genetic misstep could irrevocably hamper the newborn’s place in the world. Such power may lead to various traits and characteristics disappearing from the gene pool because of something as fickle as parents’ opinions on what features are in vogue that generation. Humanity would lose the “capacity to see ourselves as sharing a common fate”¹³⁰ and begin to view deviations from the norm as subhuman and not worth ethical consideration. Clearly, this outcome is to be avoided at all costs, but the critical language insinuates transhumanism already leaning in this unethical direction, regardless of claims that the ideology accepts and respects any individual’s choice on enhancement.

¹²⁸ Ibid., 87; 97.

¹²⁹ Ibid., 87–90.

¹³⁰ Ibid., 92.

Sandel's portrayal of modern society already has the battle lines drawn, a tactic damaging to the establishment of open-minded dialogue. He continues: "The successful would become even more likely than they are now to view themselves as self-made and self-sufficient, and hence wholly responsible for their success. Those on the bottom of society would be viewed not as disadvantaged and so worthy of a measure of compensation, but as simply unfit...The meritocracy, less chastened by chance, would become harder, less forgiving."¹³¹ In current society, the excuse "I'm not perfect!" may not be very reassuring, but at least it is true. In an enhanced future, it is not hard to imagine society responding to that plea with a resounding "Well, why aren't you?" Ethical appreciation of the other cannot exist in such an environment.

* * *

The examples highlighted above provide a representative sample of transhumanist rhetoric, the responses crafted by the opposition, and a number of ethical impediments created by the language of both. From this rhetoric, highly contentious conflicting ethical perspectives materialize. Aside from agreeing on biotechnology's impressive potential, each side has taken a seemingly intractable stance on how humanity should progress. Transhumanists believe that biotechnology allows for greater freedom through genetic control and the opportunity to live a more ethical existence by being able to better respond to the societal and cultural problems that plague modern civilization. Their arguments trumpet increased individual freedom and agency leading to an improved existence for everyone. Anti-transhumanists conclude that biotechnology will restrict freedom and lead humanity down an unethical road from which it cannot recover. They

¹³¹ Ibid.

speak of abstract elements of existence—human rights, nature, and dignity—and what ensues when they are ignored or corrupted. One side posits humanity can only fulfill its evolutionary destiny through biotechnology; the other vehemently denounces this argument with appeals to an innate quality of existence. Fortified by rhetoric and the ethical conviction that they are right, each side has bunkered down in their own dwelling place. Neither side appears eager or able to negotiate toward cohabitation.

The tension between the two sides exacerbates when the speed at which biotechnology progresses is considered. It will not wait for the sides to come to a compromise. Yet, if the future direction of humanity is in question, partisan experts must give way to the public sphere. Before any definitive answers are developed, the transhumanist debate must move from an abstract, obscure, and antagonistic dispute to a dialogical public deliberation without widespread pro- or anti-transhumanist rhetorical contamination. Some sensible attempts at catalyzing the rhetorical shift have already been made,¹³² but academic non-fiction may not have the extensive reach to be truly impactful.

The problems stemming from general close-mindedness are not so thoroughly entrenched that they cannot be surmounted. If the rhetoric of each faction continues to espouse problematic language and arguments, undermining the chance for open-minded deliberation, then other influential texts must emerge. Science fiction possesses the rhetorical impact to transport discussion to a more constructive environment. At the very least, the genre offers an alternative voice to a debate that has remained fairly stagnant in recent years. Science fiction's role within the transhumanist debate, therefore, is to

¹³² See Mehlman, *The Price of Perfection*.

mobilize and empower the public to demand better, and equal, information from both sides, so that they may make an informed decision about advanced biotechnology without relying on dogmatic rhetoric. It must engender a more ethical approach to discourse by overcoming the problems identified above. It is an immense challenge, but texts like the *Beggars* trilogy take the first steps toward reconstituting the transhumanism debate in a more ethical direction.

CHAPTER THREE: SCIENCE FICTION'S DIALOGIC IMPACT ON THE TRANSHUMANISM DEBATE

Understanding transhumanism and its potential impact on humanity requires the creation of scenarios, some more plausible than others, to spur discussion on the ethical ramifications of each proposal. Highlighting the epistemological importance of scenario creation, Garreau writes “Scenario planning is intended to prod people to think more broadly and view events with a new perspective.”¹³³ He later adds an important disclaimer: “All scenarios are to some degree faith-based. They rest upon assumptions that cannot be proven. In fact, that is one of the key points of scenario exercises—discovering what people’s hidden assumptions are, in order to hold them up to the light.”¹³⁴ Scenario creation is not limited to those with a stake in the transhumanism debate; as stated previously in this thesis, science fiction has a similar knowledge propagating effect on its audience. In the search for more information on what exactly transhumanism might mean for the future of the human species, science fiction offers an inclusive approach to a wide range of insight and speculation on the risks and benefits of transhuman biotechnology. All additional information is welcome as the transhumanism debate moves toward resolution.

The problem with analyzing science fiction’s role in the transhumanism debate is determining how to navigate the breadth of the genre. Selecting one novel, or even a series, from the vast selection of texts written about some element of genetic engineering or advanced artificial intelligence is akin to selecting a needle out of a stack of needles.

¹³³ Garreau, *Radical Evolution*, 9.

¹³⁴ *Ibid.*, 208–209.

In order to alleviate the selection headache, a number of prerequisites for this study were established to help narrow down the options. I wanted to find a highly regarded novel that occurred in a setting in the near future, prominently featured the effects of human enhancement, and had a scope broad enough to offer a robust interpretation on the ethics of a transhuman era. It was fortuitous that I was pointed in the direction of the *Beggars* trilogy, written by Nancy Kress, as the series fit the established criteria remarkably well.

Expanded from a Hugo and Nebula Award winning novella, the *Beggars* series made its debut in 1993. The texts, which begin in the fictional 2008, span the next 100 years of human existence and evolution, plumbing the possible outcomes of what happens if the species enhances itself through advanced biotechnology. Despite being written nearly two decades ago, the trilogy's connection with contemporary reality is still remarkably strong; this chapter argues, among other things, that its rhetorical impact is strengthened by the creation of a fictional world that incorporates technology that is just off the fringes of what is currently possible, yet presented in a way that is both realistic scientifically and linguistically.

Equipped with a canvas to paint one future of humanity, Kress supports an ethical approach to rectifying questions of human enhancement, creating an alternative to the polemics advanced via the transhumanism debate. The receptive, open-minded paradigm is accomplished in a number of ways, each of which is covered in greater detail throughout the chapter. The rhetorical strategies analyzed include the application of metaphor and synecdoche to promote dialogic communication, the effects of introducing unintended consequences within the text, the impact of employing realistic scientific language to create translation and transitional rhetoric that encourages a new ethical

perspective on the transhumanism debate, and the significance of switching to first-person narrative in trilogy's middle novel.

The purpose of this rhetorical explication of the *Beggars* trilogy is to exemplify how science fiction can aid in overcoming the current stalemate in deliberation, both practical and ethical, over transhumanist technology. To best accomplish this intention, the remainder of the chapter presents arguments and evidence for why and how Kress' trilogy is rhetorically successful in promoting a more ethical approach to discussing biotechnology. What follows first is a basic summary of the trilogy's plot, providing the context that serves as some reference for those unfamiliar with the series so that the subsequent analysis of the various rhetorical elements is both meaningful and coherent.¹³⁵

Plot Summary of the *Beggars* Trilogy

The trilogy begins with the birth of Leisha Camden in 2008. Genetically engineered in utero with an experimental, but safe, enhancement to not need any sleep, she is one of the original group of children later dubbed the "Sleepless." An unexpected complication in the engineering process results in Leisha's twin sister Alice not being genetically enhanced. Leisha's father, the driving force behind the enhancement, instills within his modified daughter the beliefs of Kenzo Yagai, the inventor of cheap, safe, and replicable Y-Energy. The secular Yagaiist ideology emphasizes the control of one's own destiny and that there is glory in individual accomplishment. Leisha's father explains the worldview as such: "Remember, Leisha...a man's worth to society and to himself doesn't rest on what he thinks other people should do or be or feel, but on himself. On what he

¹³⁵ A brief note on the format of the remainder of the chapter: the rhetorical analysis will jump from one text to another, not necessarily in sequential order, but in a way to best highlight the rhetorical strategies implemented. The following abbreviations are used to denote the different books in the trilogy: *Beggars in Spain* (BS), *Beggars and Choosers* (BC), *Beggars Ride* (BR).

can actually do, and do well. People trade what they do well, and everyone benefits. The basic tool of civilization is the contract. Contracts are voluntary and mutually beneficial. As opposed to coercion, which is wrong.”¹³⁶ This worldview is the basis for the beliefs and actions of many of the characters throughout the trilogy, including Leisha, and sets the outer boundary of the monologue-driven side of the ethical continuum created by Kress in the series.

As Leisha ages, she begins to feel different and isolated from regular humans and congregates with the handful of other Sleepless children in her area. Unenhanced people verbally threaten her because of her superior intellect, derived from never having to sleep and an unexpected benefit of the enhancement process: vastly superior memory and reasoning skills. Despite Sleepless contributions to society, which according to the Yagaiist ideology should be appreciated by the general public, Leisha continually faces the population’s scorn, as do her engineered cohorts. In her college years, it is determined that the Sleepless do not age past their mid-thirties because of a regenerative side effect of the genetic procedure. As the level of public resentment grows, the Sleepless, following the instructions of Jennifer Sharifi, the main antagonist of the series, slowly begin to move to an isolated and technologically advanced armed facility named Sanctuary. Eventually Sanctuary houses all Sleepless except Leisha and her Sleepless husband Kevin, who stay away because they believe enhanced and natural humans can peacefully coexist and have devoted their lives to advocating this cause. Despite living in an isolated colony, the strife between Sleepless and Sleepers continues on economic grounds; the economy produced by unenhanced humans quickly becomes irrelevant

¹³⁶ Kress, *Beggars in Spain*, 29.

compared to the vastly superior science, technology, and investing strategies emerging from Sanctuary. Feeling the rest of the world no longer sustains its end of the Yagaiist contract—that the weak no longer had the right to sap the resources of the strong—Sanctuary separates itself from humanity, literally and figuratively, by launching into orbit. While still technically a part of the United States and subject to its laws and regulations, Sanctuary operates as a self-sufficient community.

Years after Sanctuary's orbital launch, and roughly seventy years into Leisha's life (although still looking thirty-five), new genetic enhancements—different from sleeplessness—spread across America. Roughly thirty percent of the population is considered “Donkey:” the bioengineered dominant class that controls the government and the economy. The majority of the public is designated “Liver,” a position of significant inferiority, but one that is continually placated by the provisions the Donkeys provide: food, entertainment, and necessary supplies. Leisha, now resigned to the fact that Sleepless and Sleepers cannot exist together, strives to improve the conditions of the Livers. On Sanctuary, the Sleepless create a new line of progeny with mental abilities that far surpass their own brilliant minds: the SuperSleepless (shortened to just Supers). Strengthened by the transcendent intelligence of the Supers and following the orders of a dictatorial Jennifer, Sanctuary decides to secede from the rapidly weakening United States. Believing that a fundamental difference exists between Sleepers and Sleepless and tired of being excessively taxed by the American government, Sanctuary plants bioweapons across the country to use if not granted independence. The Supers, led by Jennifer's granddaughter Miri, are better able to critically analyze the Sleepless' intentions, and realize that they have been pawns used to create the technology that

facilitated the secession. Exposing the unethical behavior of Jennifer, both toward themselves and America, the Supers—still in their pre-teen years—quell Sanctuary’s insurrection and bring Jennifer to justice.

The remaining two books of the trilogy build off the groundwork established in *Beggars in Spain* and occur roughly twenty and thirty years, respectively, after the end of the first novel. In those years, the social hierarchies continue to solidify: the power and influence of the dominant Donkey class grows stronger as Livers become increasingly helpless and content to live off the handouts they now depend on. Conditions in Liver communities deteriorate into squalor as the self-automated technology they rely on breaks down. Donkeys seem both unwilling and unable to further assist. The Sleepless still occupy Sanctuary but with much tighter government restrictions, while Miri and the rest of the Supers migrate from space to a terrestrial setting: their own private, perfectly secure island, constructed up from the ocean’s floor with nanotechnology. Their major biotechnology project is equally ambitious: nanomachinery injected into humans that wards off any type of disease and heals any wound.

Attempting to break free of Donkey oppression, a militant pro-Liver rebellion releases its own variety of nanotechnology and bioweaponry: technology destroying nanobots and a fatal virus. Leisha is killed by the revolutionaries on her way to meet with the Supers. With few other options to combat the spreading technological and biological plagues, Miri decides that the Supers must intervene to save humanity from destroying itself. They release the “Cell Cleaner” technology to stop the spread of the virus. But there is more to the injection than just perfect health: hidden within each dosage is another genetic enhancement that eliminates the need for humans to eat in the

traditional sense. Once vaccinated with the “Cell Cleaner” and the “Change,” an individual can receive sustenance from the sun or any type of organic material by absorbing it through his skin. By the end of *Beggars and Choosers* humanity is left with a choice: “Change” or hope to avoid the plague. Most choose the “Change.”

The final book of the trilogy explores the consequences of the “Change,” as the majority of society, both Donkey and Liver, now receives the injection at birth. Societal rules begin to crumble as the Liver population continues to grow rapidly and is no longer reliant on Donkeys for food. Tension between the two classes remains high. Additional animosity now exists between “Changed” and “Unchanged” Livers. Jennifer returns to Sanctuary after her prison sentence for the attempted secession and begins work on a new plan for Sleepless independence. Their newest bioweapon, targeted at Donkeys and Livers, reconstitutes the way individuals process unexpected occurrences or new actions, paralyzing the victim with fear if they divert from their daily mundane routine. The purpose of the weapon is to ensure that no human every bothers the Sleepless again, as they will simply be too scared to interfere with such a foreign entity. In order to avoid the Supers intervening to save humanity once again, Sanctuary eliminates the group by detonating a nuclear bomb over their remote compound, clearing the way for the introduction of the neuro-virus. As the fear slowly spreads, the Sleepless fail to recognize the threat of Donkey retaliation and are destroyed by a nuclear attack from Earth. The trilogy comes to close without any Sleepless or Supers remaining, just enhanced and unenhanced, “Changed” and “Unchanged” left to figure out a way to combat the spread of the anxiety virus and ethically coexist.

As a whole, the trilogy creates a scenario that depicts one potential outcome of the use of transhumanist technology. It is by no means the only possibility, but it is certainly a compelling one. On the surface, the series appears to be a dystopian narrative suggesting that enhancement spawned from the desire for personal achievement will lead humanity down a tortuous path. In the rhetorical analysis that follows, an alternative reading is presented that argues that the trilogy promotes a more open, dialogical, and ethically responsible ideology for considering the consequences of transhumanism. Kress' work, therefore, serves as an exemplar of epistemology for those in search of an ethical paradigm to bring meaning and resolutions to the transhumanism debate.

Rhetorical Analysis of the *Beggars* Trilogy

Synecdoche and Metaphor in Protagonists and Antagonists

The continuum of ethics structuring the transhumanism debate is recreated within the major characters of the *Beggars* trilogy. Beginning in *BS* with the protagonist Leisha's ideological transformation, the text offers the reader a template to follow for reaching a more ethical position from which to discuss various approaches to transhuman biotechnology. In this regard, Leisha's evolving beliefs and actions serve as a metaphor for the various positions taken in the transhuman debate, and as a synecdoche for ethical, dialogic communication concerning the consequences of enhancement; her ethical approach speaks for the whole of the trilogy, even after she is killed in *BC*.

Leisha's ideology on ethics and moral responsibility develops throughout the text; at different points along the narrative she embodies the multiple stances experts and the public have on the transhumanism debate. Influenced heavily by her father's belief in the glory of individual success, her earliest worldview is shaped by his mantra: "excellence is

what counts...excellence supported by individual effort. And that's *all* that counts."¹³⁷

Fueled by the desire for personal success, Leisha's views her enhancement as not just a benefit to herself, but all of society. Speaking to her then-boyfriend, a Sleeper, about how initial resentment from unenhanced humans will eventually wane as the Sleepless contribute more to the world, Leisha, now sixteen and excelling at Harvard, states: "You believe that competition among the most capable leads to the most beneficial trades for everyone, strong and weak. Sleepless are making real and concrete contributions to society, in a lot of fields. That has to outweigh the discomfort we cause. We're *valuable* to you."¹³⁸ Her worldview is still focused primarily on the idea that those who achieve individual success will find a way to help those who are unable to accomplish the same. This is similar to the ethical paradigm established by transhumanist supporters: allow those who wish to enhance that opportunity and the rest of society will reap the rewards. Although in theory an appropriate ideology, much like that of the transhumanists, Leisha's perspective is too focused on the individual to fully acknowledge the sentiments of other Sleepless and Sleepers. Her ethical evolution must continue.

By the end of her final year at Harvard Law, her ideology remains largely unchanged: "I believe in voluntary trade that is mutually beneficial. That spiritual dignity comes from supporting one's life through one's own efforts, and from trading the results of those efforts in mutual cooperation throughout the society. That the symbol of this is the contract. And that we need each other for the fullest most beneficial trade."¹³⁹

Again, in theory, if all parties agree on this ideology, then it is likely that all will benefit.

¹³⁷ Ibid., 24. Emphasis in original.

¹³⁸ Ibid., 51–52. Emphasis in original.

¹³⁹ Ibid., 61.

Problems quickly emerge with this perspective on enhancement when other groups distort the pact for reciprocity.

In *BS*, the Sleepless come to believe that they do not need to uphold the ideals of mutually beneficial contracts because the Sleepers do not provide a fair trade. “Why do law-abiding and productive human beings owe anything to those who neither produce very much nor abide by just laws? What philosophical or economic or spiritual justification is there for owing them anything?”¹⁴⁰ Leisha’s ideology is not equipped to deal with the growing anger the Sleepless feel toward the unenhanced, also known condescendingly as “beggars.” If personal excellence is all that matters, then compassion toward the other, especially those that are inferior, is simply a waste of time. The estrangement between enhanced and unenhanced begins here, when neither side is willing to accept the other nor find a way coexist in an open, ethical manner. This is the outcome that transhumanism’s detractors dread, while supporters argue will never occur. The overarching conflict of the trilogy is that as Leisha begins to develop an ideology that is more inclusive and capable of stimulating compassion in a world driven by personal excellence, her ethos is drowned out by the feuding Sleepers and Sleepless. In Leisha, Kress creates a character that eventually embodies a worldview that offers an ethical alternative to the monologue-driven transhumanism debate, but is overpowered by the rhetoric spewed from the opposing sides. The muting of the synecdochial voice of ethical deliberation in the text is a grim portent of what may occur in humanity if it loses sight of the other.

¹⁴⁰ *Ibid.*, 63.

Although her input is rarely heeded by Sleepless or Sleeper leaders, Leisha's ideology continues to mature throughout *BS*, providing a template for the audiences to follow when considering the advantages and risks of enhancing. Metaphorically, she is a philosophical sounding board that evolves to address the issues of genetic engineering in the text and serves as an example for how the reader should respond to similar ethical dilemmas. She matures from staunch Yagaiist believing in the power of individual excellence to a compassionate being able to acknowledge that while the "beggars" may not have physical materials to trade, there is something in them that is inherently valuable: the ability to acknowledge others just as well as any enhanced human can. Critiquing the Sleepless motives for separation, Leisha argues: "But there are *more* than beggars in Spain. Withdraw from the beggars, you withdraw from the whole damn country. And you withdraw from the possibility of the ecology of help...Beggars need to help as well as be helped."¹⁴¹ Leisha's ethos, based on reciprocal help, evolves toward dialogic interaction between enhanced and unenhanced demonstrating that ideological growth is possible, and necessary, to overcome conflicts of rhetoric and ideals. The same model promoted by the evolution of Leisha is appropriate for the transhumanism debate: regardless of whether humans enhance or not, there is still an inherent quality in being able to acknowledge the other that is the great leveler between regular and transhuman.

In contrast to Leisha's newfound openness to the other, the Sleepless and Sleepers retreat to isolated strongholds, both literally in the text and with their rhetoric. The loaded term "Sanctuary" represents more than just a home for the Sleepless. It is an ethos and a form of exclusive acknowledgement, a literal and figurative dwelling place.

¹⁴¹ Ibid., 101.

The Sleepless community finds comfort and acceptance there, but at a steep cost; in their separation from the rest of humanity, the Sleepless lose the ability to see any benefit or significance to Sleeper existence. A sense of entitlement grows within the denizens of Sanctuary, a belief that they are above the rules and regulations that have shaped ethical existence. This ideology is exemplified by Jennifer, the Sleepless leader, during a speech broadcast to the entire commune:

Citizens of Sanctuary...I call you that because although the United States government calls us citizens of the country, we know better. We know that no government founded without the consent of the governed has the right to claim us. We know that no government without the ability to recognize the reality of men having been created unequal has the vision to claim us. We know that no government operating on the principle that beggars have a right to the productive labor has the morality to claim us.¹⁴²

The Sleepless have only Sanctuary and the isolated, select community that inhabits it. Unlike Leisha, Jennifer is so closed to the other that she is willing to use violence to stay removed from the rest of humanity. The Sleepless ideology is a textual representation of one of the strong critiques of transhumanism: genetic engineering will eventually lead to resentment and anger between the enhanced and the unenhanced. The synecdoche of ethical deliberation, Leisha, offers an alternative approach; she understands that isolation breeds ignorance and contempt, but few are willing to adopt her ethos, despite her efforts to reconcile the differences between the opposing sides.

¹⁴² Ibid., 297–298.

Identifying how the refusal to acknowledge the other creates conflict is not difficult, but what makes the trilogy so rhetorically compelling is that a similar, albeit less acrimonious, situation currently exists in the rhetoric utilized by transhumanism's supporters and opponents. The texts take the debate over personal achievement versus communal goals to extremes so that it need not happen in reality. Leisha comes to understand as she ages (mentally, but not physically) that establishing a middle ground of ethical openness is a more complete ideology than anything focused primarily on the individual. Her next stage of ideological evolution is presented in two revelations: "She remembered the day she had realized that Yagaiist economics were not large enough. Their stress on individual excellence left out too many phenomena, too many people: those who had no excellence and never would. The beggars, who nonetheless had definite if obscure roles to play in the way the world ran..."¹⁴³ and "Because...what the strong owe beggars is to ask each one why he is a beggar and act accordingly. Because community is the assumption, not the result, and only by giving [nonproductiveness] the same individuality as excellence, and acting accordingly, does one fulfill the obligations to the beggars in Spain."¹⁴⁴

Translating Leisha's epiphanies into reality reveals that pro- and anti-transhumanist ethics are just two isolated, exclusive options and that a less oppositional approach is possible. Replicating Leisha's ethical growth within the audience so that it may approach difficult questions regarding transhumanism is one rhetorical ambition of the text. By moving the protagonist toward a more dialogic perspective, Kress indicates that the reader should be willing to do the same if necessary. This effect is further

¹⁴³ Ibid., 215.

¹⁴⁴ Ibid., 240.

enhanced when Leisha's evolution is contrasted against the ethical stagnation or even decline of her fellow Sleepless. Once in orbit, with any last links to humanity severed, the Sleepless see themselves as an entirely different species. Human nature, whatever that might be, no longer has any inherent value. Instead it must be earned: "But what constitutes a member of a community? Is it automatic—once you have joined, you are included for good? That leads to institutional morbidity. Or does being a member of a community mean that you continue to actively support the community, and actively contribute to it?"¹⁴⁵

The change toward selfishness in the relationship between the individual and society is a nightmare scenario for supporters and opponents of transhumanism; they might believe that the definition of human nature is different, but both believe that there is something inherent that connects the entirety of the species. The Sleepless no longer hold this belief. As the main antagonists of the series, it is clear that this is not the ideology the audience should adopt from the text, especially when compared to Leisha's own evolving perspective. The value of the text is that it provides another outcome to the transhumanism debate, one that suggests an ethical way of dealing with the ideological differences by evolving toward openness, much like Leisha. Separation and exclusive, monologic rhetoric must be avoided in the text and in reality. Leisha's attempts at reconciliation fail, but she acts as the ethical beacon, or voice, in an otherwise dark world.

Leisha's final ethical evolution occurs at the end of *BS*. She comes to realize that individual excellence and equality are mutually exclusive, that focusing on one inversely

¹⁴⁵ Ibid., 341.

affects the other. While this might seem like a damning critique of aspirations for personal success at the expense of community, it reaffirms the belief that social hierarchies are accepted in society as a justifiable outcome of the pursuit of excellence. Social inequality is the cost of existing in a capitalist environment. Transhumanists argue two points against the possibility of separate enhanced and unenhanced classes: that advanced biotechnology should be used to eliminate social stratification or that the divide between engineered and natural will exist along the lines of the already accepted and propagated class system. Underlying these arguments, and what Leisha comes to realize, is that change is constant and ensuring that people be allowed to change is worth fighting for. Her final epiphany states:

...there are no permanent beggars in Spain. Or anywhere else. The beggar you give a dollar to today might change the world tomorrow. Or become father to the man who will. Or grandfather, or great-grandfather. There is no stable ecology of trade, as I thought once, when I was very young. There is no stable anything, much less stagnant anything, given enough time. And no nonproductive anything, either. Beggars are only gene lines temporarily between communities.¹⁴⁶

Although Leisha was unsuccessful in bridging the gap between Sleepers and Sleepless, she understood that existence is evolution, both personal and societal. She embodies ethical growth and resolution. The only way to exist ethically in perpetually changing circumstances is to be open to the other, because alterity always provides something in return, even if it is just the chance for future acknowledgement. This is the ethos that must be taken from the trilogy and instilled within transhumanist debate. Once

¹⁴⁶ Ibid., 438.

openness is established as the ethical groundwork for deliberation, meaningful progress regarding the future of humanity can be made so that the species is prepared for the changes that will inevitably occur, biotechnologically driven or not.

The importance of Leisha's role as the voice for a dialogic, ethical approach to bridging the gap between enhanced and unenhanced is highlighted with her death in *BC*. Without its conduit for ethical action, the chance for reconciliation between Sleepless and Sleepers is over; the difficulties Donkeys and Livers have coexisting increase after she is murdered, as well. Leisha's removal from the role of ethical epicenter, and the subsequent conflict and chaos within the story arc—the pro-Liver revolution, the use of various bioweapons, the forced “Change,” the destruction of the Supers and the Sleepless—reinforces the belief that openness is the only way to effectively handle contentious debate. Without Leisha's openness, the world begins to crumble.

In Leisha, Kress creates a character that evolves ethically to realize that despite the differences in abilities, all humans have a common link that connects one another: regardless of how isolated a group becomes, the possibility of being open to the other exists, and those existing in alterity offer the capability of being acknowledged, an existential element that allows for ethical reciprocity even in the most contentious situation. If the individual is open to the other, then the other should be open to the individual. The same holds true for the transhumanism debate. Remembering that at the very least, pro- and anti-transhumanists have within them the capability of acknowledging the opposition allows each side the opportunity to move away from polar ideologies and toward dialogic conversation. This is the position from which solutions are reached; Leisha realized this, reflected in her ethical maturation, while the various

antagonists of the series never do. Humanity must hope that the entities involved in policy decisions regarding transhumanism come to share Leisha's viewpoint, a major reason why the *Beggars* trilogy is an important rhetorical artifact concerning future decisions on biotechnology.

No longer able to promote a dialogic approach through Leisha, the interactions between the various "classes" of humans serve as the vessel for delivering Kress' message of connectedness and openness. Ranging from the ignorant, unenhanced Livers to the god-like Supers, how each lives and communicates with one another reveals the negative consequences of failing to acknowledge the other *and* a path toward redemption. There is no longer one character serving as both metaphor and synecdoche for ethical deliberation, rather groups of individuals representing and living various transhumanist scenarios. For example, the relationship between Donkeys and Livers epitomize the trepidation that anti-transhumanists have over the creation of genetic upper and lower classes. Transhumanist supporters, on the other hand, will likely turn to the friendship between enhanced Diana/Vicki¹⁴⁷ and unmodified Lizzie, a precocious Liver youth with an aptitude for hacking and robotics, as support for the belief that enhancement does not need to lead to oppression. Without Leisha to actively promote the values of openness, her ethical ideology still resonates in the later texts primarily due to the interactions between characters of different enhanced status.

The protagonists in the later stages of the trilogy are able to see past initial prejudices and acknowledge humanity as a unified species, however modified or enhanced it is. This is not an easy obstacle to overcome; differences in language and

¹⁴⁷ She undergoes an identity change over the final two books. Identified as Vicki for the remainder of the thesis.

comprehension make it difficult for meaningful cross-enhancement communication. In her attempt to explain the “Cell Cleaner” to the federal genetic modification regulatory board, Miri, leader of the Supers, laments: “...I will prove to you here its essential safety, even though I’m not sure any of you has the capacity to understand the science I will explain.”¹⁴⁸ This is just one example of many throughout the text when language divides rather than unites. The Livers’ choppy and grammatically incorrect cant is another example: “I squeezed my eyes shut, me, and my head swung down, and when I opened my eyes what did I see? Leaves, that no cleaning ‘bot had swept out in nearly a year, and that nobody else didn’t both with neither.”¹⁴⁹ Even Leisha, speaking about Miri and the Supers, bemoans the lack of a common language between the rungs of the enhancement ladder: “She’s so superior to the Donkeys they can’t accept her on principle, she’s too much of a threat. And the idea of her trying to find common ground communicating with Livers is ludicrous. There’s no common language.”¹⁵⁰ Yet, through personal connections and openness, these language barriers begin to fall, evidenced by the aforementioned relationship between Vicki and Lizzie. Prejudices dissolve, as do distinction between Donkey and Liver, as they grow to appreciate the alterity of each other, leaving Vicki to comment: “And Lizzie, leaping like a young gazelle, quickly overtaking and passing the other two, shouting and crying my name, so glad that I was here, that I was alive on Earth. My people.”¹⁵¹

The dialogic relationship between Vicki and Lizzie contrasts heavily with the isolated populations of the Sleepless and the Supers. Each sees itself as being a different

¹⁴⁸ Kress, *Beggars and Choosers*, 97.

¹⁴⁹ *Ibid.*, 126.

¹⁵⁰ *Ibid.*, 51.

¹⁵¹ *Ibid.*, 315.

species than humans and incapable of meaningful relationships outside of their own group. They have lost sight of the shared connection that all humans have, the ability to be open to the other, and in doing so, represent the worst case scenarios imagined by transhumanist's supporters and opponents. That the series concludes with both populations completely destroyed buttresses the underlying ethos of the texts: separation and failure to acknowledge the otherness of the rest of humanity is of no benefit to the ethical evolution of the species. For the transhumanism debate to properly address questions regarding the future of humanity, it would be wise to follow the template established through the metaphorical and synecdochical action of the trilogy's protagonists and move toward dialogue and acknowledgement rather than isolation and antagonism.

The Rhetorical Impact of Unintended Consequences

The decision to create offspring born without the need to sleep cannot be made without weighing the known consequences of such action. But, it would be difficult to script nearly a thousand pages of story if the characters only dealt with the expected outcomes of the decision to engineer the Sleepless. The benefit of introducing unintended consequences into the plot is twofold: one, it makes for a more enjoyable experience if the reader is left wondering what could possibly happen next. Furthermore, inadvertent results rhetorically compel the audience to keep searching for answers to newly introduced, and unforeseen, problems. The pursuit of new solutions for unplanned incidents leads to the formation of alternate scenarios that may shed new light on existing or freshly spawned dilemmas. As a genre, science fiction, especially in regards to transhumanism, exposes this unsettling truth: humanity cannot possibly know how large

the impact advanced biotechnology will have. To think otherwise is foolhardy.

Therefore, Kress' introduction of unintended consequences not only bolsters the story but serves as a rhetorical call to action for the audience to consider the unexpected in the text and in reality. A public better able to imagine what might be possible is better equipped to participate in dialogic deliberation on transhumanism.

Societal, political, and economic unintended consequences in the *Beggars* trilogy stem from the initial unforeseen evolutionary or physiological results of the Sleepless enhancement. The developers of the modification knew that the genetic engineering that switched off the body's need to rest also affected other characteristics: "Because there are side effects...Compared to their age mates, the nonsleep children—who have *not* had IQ genetic manipulation—are more intelligent, better at problem-solving, and more joyous."¹⁵² The hope that "just once the universe has given us something wholly good, wholly a step forward, wholly beneficial"¹⁵³ without negative side effects unravels after it is discovered that the Sleepless do not age past their mid-thirties. The unexpected consequence of extraordinarily protracted life, the result of going forward when not *all* information was available, pushes the Sleeper resentment of Sleepless (the division between the two itself an unintended societal outcome) in an openly hostile direction. The parallel of the unexpected in the text to the transhumanism debate is clear; the one certainty about the future, whether enhanced or not, is that it is unknowable, so texts that posit possibilities and provoke thought are valuable commodities as transhumanist deliberation continues. Humanity may never be fully prepared and cognizant of what the future holds, but it need not be completely ignorant toward the possibilities.

¹⁵² Kress, *Beggars in Spain*, 12. Emphasis in original.

¹⁵³ *Ibid.*, 13.

Other unplanned physiological consequences emerge throughout the narrative and with each discovery new challenges arise. Sleeplessness is found to be a dominant trait, catalyzing fears of genetic super-humans wiping out the Sleeper population. Translated into reality, such a finding urges the audience to consider the real world implications of germ-line genetic engineering, the tinkering of an offspring's genes so that they are directly inheritable by future progeny. Elsewhere, positive genetic evolution is countered with societal regression; surely that was not the intention of the scientists who originally developed the Sleepless enhancement, just as it is not the intention of transhumanists proposing radical changes to physical and mental human capabilities. By introducing unexpected consequences, Kress offers a reminder that there are still many questions that need answers, and many more than have yet to be asked. Her method of stimulating the audience to ask such questions is to create an alternate world where things simultaneously improve and go awry, a figurative consequence that the rhetoric of transhumanism's proponents and adversaries has yet to fully reconcile. A combined approach, one that incorporates the positive ethics from each side and a comprehensive, unbiased vetting of risks and benefits, better serves humanity in preparing to deal with the arrival of future unanticipated outcomes and effects.

Physiological surprises are common in the *Beggars* trilogy, but the true impact of the series is felt in the unforeseen upheaval in society caused by the Sleepless enhancement. Each unintended consequence in the text mirrors contemporary thinking on transhumanist technology, creating new scenarios to discuss openly. For example, the class system between the Donkeys and the Livers, an enhanced minority ruling a natural but ignorant majority, is a theme that reappears in many works of anti-transhumanist

rhetoric. The way to overcome such societal division is also addressed: the text encourages openness by demonstrating, through the relationship between Vicki and Lizzie, that the best way to topple hierarchical power structures is to work together across castes. The unexpected creates many problems for the characters of the trilogy, but it also presents an opportunity to solve new challenges within the text and alert the audience to facets of biotechnology not thoroughly covered in the arguments for or against enhancement.

The societal impact of unintended consequences enhances the transitional rhetorical significance of the trilogy by creating a world the reader identifies with but is also distant enough to evaluate critically. An example of this effect is observed early in *BC*. Trying to regulate genetic engineering to avoid a situation similar to the Sleepless, the U.S. government attempts to enforce standards on enhancement and modification, a perfectly reasonable and worthwhile endeavor. With no power to actually administer the rules, a genetic black market emerges. The unintended consequence of the illegal trafficking of enhancements leads to further unrest within the community: Donkeys feeling unfulfilled by their current existence purchase superfluous modifications in an attempt to bring significance back into lives. Vicki describes this process during an encounter with a friend's enhanced dog:

The dog followed her from the cool dimness of my apartment and stood blinking and sniffing in the bright sunshine. It was clearly, aggressively, illegally genemod. The Genetic Standards Enforcement Agency may allow fanciful tinkering with flowers, but not with animal phyla higher than fish...And yet here was Stephanie, theoretically an officer of the law, standing on my terrace flanked

by a prison-sentence GSEA violation in pink fur. Katous had four adorable pink ears, identically cocked, aural Rockettes. It had an adorable pink fur rabbit's tail. It had huge brown eyes, three times the size of dog's eyes...¹⁵⁴

The transitional rhetorical aspect of this passage describes a world that clearly does not exist but remains close enough to a reality obsessed with appearances to remain a possibility worth considering. It can also be thought of in terms of the transhumanism debate. An agent of the law wantonly showcasing illegal gene modifications signals different things for each side of the argument: a transhumanist might see this as a sign of technological inevitability, while the movement's opposition may observe the ultimate corruption of authority. Regardless of how this passage, and others like it in the text, is read, the overarching quality of transitional rhetoric is that it serves as a call of conscience that transcends the pages of the text into reality: both the audience, and humanity in general, must acknowledge the possibilities of the future as a result of critiquing the fictional world and deliberate on what is to come in an ethical, open manner.

In considering the rhetorical impact of unintended consequences, it is necessary to examine the actions, and subsequent results, of Jennifer, the character who represents monologic close-mindedness. Jennifer's beliefs, intentions, and behavior throughout the text epitomize what can go wrong when ethical deliberation and openness to the other are overlooked. It is perhaps not surprising that the individual responsible for Sanctuary's launch off Earth would serve as the foil for ethical interaction in the series. Sanctuary's original ideology centered on loyalty and dedication to the Sleepless community, but

¹⁵⁴ Kress, *Beggars and Choosers*, 16–17.

unexpectedly to most of its inhabitants, the supposedly democratic commune is revealed to be a dictatorship when Jennifer uses her influence to staff the governing body with handpicked toadies. Decisions made by this group affect the entire community, yet dissenters have no voice in legislative, judicial, or executive decisions; public moral argument is dead on Sanctuary, all for the pretense of self-protection.

The lack of discussion is evident during the Sleepless' decision to use bioweapons if necessary in their attempt to secede from the United States, ultimately leading to Jennifer's downfall in *BS*: "The secrecy had been a hard fight for Jennifer. The elected councilors, fiercely committed to their community, had wanted to discuss the weapon with their constituents."¹⁵⁵ Jennifer made no attempt to communicate her intentions with the greater Sleepless community, clearly a violation of ethical leadership. The indignant response from other members of Sanctuary exhibits an unexpected consequence of Jennifer's secrecy: open dissention to the governing body. Jennifer's response is dictatorial:

'We should have been told' a woman cried. 'How is Sanctuary different from the beggars' society if decisions are made for us, about us, without our knowledge or consent? We aren't dependents, and we aren't killers.' 'I know her,' Councilor Barcheski said. '...have her brought here to a meeting room. I'll talk to her.'¹⁵⁶

From responses to unexpected situations like the one above, and similar ones throughout the trilogy, Sanctuary's unethical approach to government is exposed. The Sleepless claim of superiority over regular humans becomes dubious when contrasted with their aversion to openness and criticism. Sanctuary, therefore, mirrors the dwelling places

¹⁵⁵ Kress, *Beggars in Spain*, 405.

¹⁵⁶ *Ibid.*, 406.

inhabited by pro- and anti-transhumanists, ostensibly open-minded locations, but not so in reality. To avoid the fate of the Sleepless, both sides of the transhumanism debate must vacate their rhetorical habitat and move toward dialogic, ethical progress; the exploration of unintended consequences provides ample rhetorical territory to forge the new middle ground.

The rhetoric of transhumanism's supporters and opponents can never offer a full explication of the possible benefits and risks advanced biotechnology presents; proponents celebrate the unknown as a call for knowledge and existential control, while critics see uncertainty as a warning. By highlighting how certain characters respond to unexpected results within the various facets of human existence (social, political, evolutionary) Kress establishes the ethos of working together to solve a problem by contrasting the actions of the ethical protagonists and the unethical antagonists. Conflict in the trilogy is rarely resolved without addressing the ethical requirements necessary to present a solution. Jennifer's initial attempt at secession is halted by Miri and the Supers, who were able to see past her one-sided deception and acknowledge the value of open deliberation. Miri explains the Supers' ethical reasoning to Jennifer:

'You threatened the United States without the consent of the rest of Sanctuary. You convinced the rest of the Council, or bullied them, or bribed them...And not even your own community really matters to you...now they'll all be indicted for conspiracy to treason. You could have saved them and you didn't, because that would have meant giving up your own control over who is in your community and who is out, wouldn't it?'¹⁵⁷

¹⁵⁷ Ibid., 418–422.

The trilogy ends with one final unintended consequence: all beings, Donkey and Liver, Changed or not, are forced to assume responsibility for their action in response to the anxiety promoting virus spreading through the country. Vicki comments: “So now we’re all on the same side, looking out for the same interests. How cozy...Miranda Sharifi and the Sleepless can’t get us out of this one. This time, no miraculous syringes from Sanctuary...the Supers are all dead.”¹⁵⁸ The path toward ethical and responsible action comes from an unexpected source: a dangerous bioweapon that causes intense fear in an individual when he tries something new. It is an appropriate metaphor for the transhumanism debate and highlights the dichotomous rhetorical impact of an unintended consequence: it alerts the audience to potential outcomes never previously considered and engenders rhetorical invention and ethical action as an appropriate response to the anxiety caused by the unknown. Humanity cannot fully comprehend the future, but it must discuss what it does not understand or imagine, rationally and openly. Unintended consequences aid this process, making it a valuable rhetorical strategy to incorporate within the transhumanism debate to facilitate the process of being open to the other.

Scientific Language as Translational Rhetoric

If the use of unintended consequences results in a transitional rhetorical move, then scientific language amplifies the translational effect of the text. Such language provides evidence that the story is based in a plausible reality, not a fantasy world, augmenting its epistemic potency. It is equally important to note that the trilogy does not become overly technical with terminology, finding the appropriate middle ground between complete scientific veracity and accessibility for the layperson. The text

¹⁵⁸ Kress, *Beggars Ride*, 396.

becomes translational when the audience uses the technical language to inform its knowledge of the topic at hand, in this case genetic engineering, and by extension transhumanism. At the very least, the reader is better prepared to consider the implications of biotechnology. The trilogy is filled with examples of scientific writing able to exist between the lines of being familiar to the contemporary reader and seeming realistic enough to be a genuine possibility at some point in the near future. For example, in the opening pages of *BS* when doctors are explaining how the Sleeplessness enhancement works to Leisha's father, the language used to describe the process is both scientific and conceivable:

‘Let me start with a brief description of sleep. Researchers have known for a long time that there are actually three kinds of sleep. One is ‘slow-wave sleep,’ characterized on an EKG by delta waves. One is ‘rapid-eye-movement sleep,’ or REM sleep, which is much lighter sleep and contains more dreaming...the third type of sleep is ‘optional sleep,’ so called because people seem to get along without it with no ill effect...’¹⁵⁹

The reader does not need to know what an EKG or delta waves are to understand the point of this passage.

Interestingly, Kress makes the conscious decision to curtail the scientific language when it becomes too technical, exhibiting an understanding of the linguistic space she must reside in: “‘The actual sleep mechanism has some flexibility but not the same amount for every person. The raphe nuclei on the brain stem—’ Ong said, ‘I don’t think

¹⁵⁹ Kress, *Beggars in Spain*, 10.

we need that level of detail, Susan. Let's stick to basics.'"¹⁶⁰ Scientific legitimacy, as well as the technical boundaries, is established early in the trilogy by the language chosen by Kress; through the translational rhetoric of such language the texts become closely linked to reality, enabling knowledge building and warranting real-life ethical consideration.

Vicki poses the vital question regarding enhancement: "How do churls make decisions about wizardry we can't understand?"¹⁶¹ Kress provides an answer through the trilogy; scientific language translates and legitimizes complex scientific information and details for public consumption. This more accessible data in turn becomes cultural knowledge that shapes the transhumanism debate in various ways. Additionally, the translational effect of scientific language democratizes information for the general public, thus presenting an alternative to a debate led by the few. A scene from *BC*, in which the Supers hope to receive government approval to market the medicinal nanotechnology known as the "Cell Cleaner," highlights the translation of plausible scientific language into usable information for the textual and real-world audiences:

'Case 1892-A describes a nanodevice designed to be injected into the human bloodstream. The device is made of genetically modified self-replicating proteins in very complex structures...The Cell Cleaner contains a proprietary device referred to in Case 1892-A as 'biomechanical nanocomputing technolog.' Under laboratory conditions, this technology has demonstrated the capacity to identify seven cells of the same functional type from a mass of cells of varying functional

¹⁶⁰ Ibid.

¹⁶¹ Kress, *Beggars and Choosers*, 100.

types, and to compare the DNA from these seven cells to determine what constitutes standard DNA coding for that type of cell.¹⁶²

The scene continues with more examples of scientific language that showcase the same point: there is just enough information included to seem technically feasible, reifying within the audience's collective knowledge a new possibility to consider. Furthermore, the passage's textual audience consists of Donkeys and Livers—the rulers and the oppressed of society—signaling that the information is for widespread, cross-class consumption. Unfortunately, returning to Vicki's quote above, the Livers are too far removed from decision making to comprehend the ramifications of the technology and the Donkeys do not want to introduce anything that they cannot control. Kress expects the reader to not have the same difficulty. This attempt at democratizing information, although unsuccessful in the text, suggests the importance of an informed public as necessities for encouraging and improving public moral argument. Scientific language offers an accessible translation of complex information to the general public which can then be used to direct the transhumanism debate in a more ethical direction.

In addition to democratizing and reifying information through translation, scientific language within the text produces a normalizing effect. Repeated descriptions of a scientific procedure results in an audience more familiar with a topic or technology as the baseline collective knowledge increases. For example, most individuals have some concept of DNA; fifty years ago that was not the case. A reader without knowledge or opinion on genetic engineering at the beginning of the trilogy is more familiar with the risks and benefits that accompany enhancement by the end of the series through constant

¹⁶² Ibid., 91–92.

encounters with the Sleepless, modified Donkeys, the Supers, and the Changed. Enhancement no longer seems extraordinary, thus creating the possibility of such banality carrying over to real life thoughts on transhumanism. The normalization process occurring in the text serves as a portent for what might happen in reality once enhancement begins in earnest: fear and uncertainty, overcome by early adoption, turning into widespread acceptance and then, finally, indifference. This progression is not dissimilar to how many transhumanists view the natural progression of any radical change in existence caused by technology (for example vaccinations, space travel, and the Internet). The normalization procedures begin with the repetition of scientific language and end with increased familiarity of a topic within the audience, in this case transhumanist biotechnology.

The normalization of enhancement is a boon and a burden to the transhumanism debate. It benefits deliberation by creating an audience familiar and comfortable with identifying abstract topics. In other words, it readies the audience for its role in the debate. Genetic engineering, nanotechnology and artificial intelligence shift from obscure visions of the future to mundane household technologies that shape existence. The “Change” nanotech reestablishes human feeding and health from the inside out. The technology is literally internalized within the characters, the same effect the text’s rhetoric has on the audience due to the now familiar scientific information. That knowledge is now a part of the reader. The result is an individual more prepared to engage in the ethical responsibility of deliberating over the future of humanity.

Normalized transhuman technology becomes burdensome when the audience rushes to make enthymematic connections that hinder dialogic debate. Now sufficiently

capable of making informed decisions on advanced biotechnology, an individual must fight the urge to connect less dialogic ideologies with knowledge gleaned from the text. For example, linking the unethical actions of the Sleepless, made real by scientific language, to a worldview promoted by staunch anti-transhumanists would negatively affect one's ability to remain open to other perspectives.

Enthymematic links become increasingly problematic when certain technologies are presenting in only one way, virtually ensuring a negative identification within the audience. Kress deftly avoids this issue and advocates refraining from such connections by presenting technology in an equanimous manner. The Sleepless are a worst case scenario for transhumanism but Leisha demonstrates that the enhanced are capable of ethical action, and are therefore redeemable. The Supers wish to level social hierarchies and oppression but must fundamentally change human existence, and eschew proper government regulation, to do so. Such even presentation of technological and moral dilemmas compels the reader to contemplate the issues further and not heuristically jump to a preprogrammed, enthymematic response.

The translational rhetorical element highlighted by the use of plausible scientific language is significant within each text of the trilogy. The use of such language informs and instructs the audience through its epistemic impact and normalizes abstract, complex topics and themes. Over the course of the series, even the most technologically ignorant reader receives an education in numerous transhumanist technologies through accessible and realistic scientific language. Despite dealing with topics that, judging from the transhumanism debate, lead to an overall lack of openness to different ideologies, Kress avoids biased portrayals of characters and tropes, instead presenting the radical changes

caused by advanced biotechnology with scientific language that engenders ethical deliberation rather than drills the audience to retreat back to monologic worldviews.

Emphasizing the Importance of General and Rhetoric Criticism

The role the SuperSleepless play in the *Beggars* trilogy is important because they present a plausible scenario on what the next iteration of human evolution might look like. Vicki confirms as much while observing Miri's government hearing: "I looked back at Miranda Sharifi, holding a thick printout bound in black covers. It was clear to me that the Sleepless are a different species from Donkeys and Livers. I mention this only because of the large number of people to whom it is, inexplicably, not clear."¹⁶³ By establishing the Supers as something different from the rest of humanity, more so than the rest of the Sleepless, Kress is able to present her vision of the future in a number of different ways; if the Supers are positioned as sharing the same selfish motivations as regular Sleepless, their role and much of the rhetorical impact of the texts drastically changes. Instead, Kress imbues the Supers with a way of processing and remembering information that resembles rhetorical criticism. The goals of rhetorical criticism—disclosure of the truth and promoting ethical existence through dialogue, acts of reciprocity, and the critical appraisal of the actions and artifacts of humanity—are embodied within the Supers. The result is the construction of a small group with superior intelligence and superior ethical abilities. If the next discernable step in evolution is intellectual *and* ethical, at least within the text, then enhancement functions as a clue to the audience that it should strive to achieve the same during its own existence.

¹⁶³ Ibid., 90.

The comparison with rhetorical criticism originates from the Supers' ability to communicate in ways that exceed normal human capabilities. To paraphrase and distill many examples into one description, the Supers "think" in an abstract, non-linear manner that allows for the connection of all known connotations and denotations of a particular word or phrase to coalesce together in strings to form three-dimensional thought structures. The patterns are then transmitted through Super-designed technology to create holographic images of strings of thought. Kress describes Miri's first experience with the graphic representation of her complex thinking:

When she finally got to see his preliminary results, Miri gasped in delight. It was a model of *her* strings...each concept represented by a small graphic for concretes, by words for abstracts. Glowing line in various colors mapped first-, second-, and third-level cross-references. She had never seen such a complete representation of what went on in her mind...Unlike Miri's, Jonathan's model wasn't a symmetrical shape but an untidy amoeba, with strings shooting off in all directions...How did the Battle of Gettysburg connect to the Hubble constant? Presumably Jonathan knew.¹⁶⁴

The holographic images offer a way of making visible, or revealing, what was once misunderstood or abstract; in other words, it is technologically-powered eloquence. Until this point in the narrative, the Supers struggle with verbal communication due to debilitating stuttering caused by their genetic modifications; to counter, they invent a way of "speaking" that renders spoken language unnecessary and inadequate. The three dimensional strings of thought and virtually enhanced eloquence allow the Supers to

¹⁶⁴ Kress, *Beggars in Spain*, 294. Emphasis in original.

make ethical decisions better than the Sleepless because they can very literally see *all* the symbols, contexts, and other vital rhetorical information connected with words, actions, and artifacts. Put another way, they “think” in “deep reading” of a text, a process that takes rhetorical scholars considerable research and thought, but happens naturally and instantly within the Supers and is then communicated flawlessly through virtual eloquence.

Unlike the Sleepless who are deceived by Jennifer’s false sense of democracy, the Supers understand the importance of criticism and public moral argument because of their innate competence for rhetorical analysis. This generational difference is most vividly depicted in the Supers’ decision to stop the Sleepless secession attempt. Whereas Jennifer went ahead with the plan without consulting the majority of the population, Miri decides that all Supers must be consulted, and all options and outcomes discussed, before moving forward with any plan: “Miri said, as resolutely as she could, “What we’re going to do first is link with all the Beggars,¹⁶⁵ wherever they are...Then we’re going to discuss this. Thoroughly. Everybody’s opinion. Then we’re going to make a group decision.”¹⁶⁶ By allowing a crucial decision to be made by the group, the Supers demonstrate their ethical superiority; this ethical paradigm is made possible by their inherent skill at rhetorical criticism and ability to virtually recreate eloquence to disclose the truth, both concrete and abstract, of any situation. The transhuman debate has much work to do to even begin to approach the skill at which Supers rhetorically analyze their own actions and artifacts to reach an ethical solution.

¹⁶⁵ The Supers’ ironic name for themselves.

¹⁶⁶ Kress, *Beggars in Spain*, 411.

The Supers' role as ethical beings changes slightly throughout the text, but regardless of the position taken by Sleepless, Donkeys, or Livers, their complex strings of thought do not permit them to act unethically toward anyone else, regardless of social and political hierarchies. Thinking in "rhetorical criticism" allows the Supers to "see" the consequences of their actions within their virtually enhanced thoughts, as well as the inequality that permeates Sleepless existence. Miri demonstrates her morality by castigating the Donkeys for questioning the value of the Cell Cleaner and their treatment of Livers: "You would rather keep one person from dying with the Cell Cleaner than have hundreds of thousands die without it. That is morally wrong...*You* are morally wrong, all of you. You are moral Fascists, using the strength of government to harm those already weak and powerless, in order to keep them powerless and so keep yourselves in power...You are killers, all of you."¹⁶⁷ The Supers' willingness to offer enhancement to anyone, not just to those who can afford it, exemplifies their ethical superiority. The Sleepless believe that the smart and strong in society owe nothing to the weak, presenting a stark contrast to the Supers' ideology that it is the responsibility of the superior to aid the needy, to acknowledge and help the other. The desire to help comes from the inherent ability to fully analyze and disclose abstract, complex information and connections. Adopting a rhetorically critical mentality shifts the transhumanism debate from the separatist ideology of the Sleepless to the dialogic, acknowledgment driven mentality of the Supers because it better illuminates all perspectives, even those advanced by the opposition.

¹⁶⁷ Kress, *Beggars and Choosers*, 96. Emphasis in original.

The function of the Supers as ethical paradigm raises an important question regarding biotechnology and transhumanism. Numbering barely more than two dozen, the Supers serve as a metaphor for the question of who gets to make the decisions concerning radical biological changes in humanity. Should the people who develop and understand the technology make the decisions for the rest of the world or should the general population hold the power over such a choice? Discussions over the right to choose for others are vital to the transhumanism debate because if enhancement ever occurs, only a small minority of individuals will have access to the technology at first. If the freshly enhanced prove to be far superior to regular humanity, both intellectually and morally, do they have the ethical right to serve as arbiters for the vast majority? Would the enhanced, given their moral evolution, even accept that role?

Faced with this difficult ethical dilemma, the call for rhetorical invention is paramount. In a democracy, a small group of people cannot possess the entirety of decision making power. This notion is fairly rudimentary, but becomes much trickier when the minority upholds the best interests of the entire population, yet the majority cannot comprehend the proposed actions of the few. The Supers exist in this difficult position; they see oppression in society, but as the minority, realize they cannot ethically intervene on behalf of the majority without deliberation. They need humanity to respond in the same way they have. Alas, it is only when humanity threatens to destroy itself with bioweapons that they decide to act and release the Cell Cleaner and Change syringes, but only after no other alternative presented itself: “We [Supers] decided it would be better to let you find your own way. If we do everything, you will just...resent...”¹⁶⁸ In a sense,

¹⁶⁸ Ibid., 313.

the role of the Supers comes full circle: originally beings capable of innate rhetorical criticism due to their advanced cognitive abilities, they end as a call for rhetoric directed at the rest of the population to fix itself. Unfortunately, the call is not answered.

Rhetoric permeates the Supers; they are agents capable of understanding the world through the lens of rhetorical criticism and exist to facilitate rhetoric within the rest of the humanity. In these roles, they serve as a template and case study for the transhumanism debate as the Supers embody the inherent contradiction that comes along with transhumanist technology: the power to improve humanity, but then what to do with that power once it is granted. The Supers reify the importance of public moral argument and ethical decision making through rhetorical criticism but end up overstepping their moral obligations by supplying the population with radical enhancements without the approval of the majority, even if it was done so only out of necessity. The various scenarios the Supers present, and the way they handle their ethical responsibilities, engender further debate on transhumanism because they represent a plausible consequence of biotechnology. The resulting deliberation should follow the model the Supers provide through their inherent rhetorical criticism: acknowledge and respect the other, take into consideration all perspectives, and disclose the truth of the situation, to the best possible degree, in a dialogic manner.

The Rhetorical Impact of First-Person Narrative

Beggars and Choosers, the trilogy's second novel, offers a number of additional rhetorical elements in comparison to the other texts due to its rotating first-person narrative style. The story is told through the eyes of three separate but tangentially linked protagonists, with switches between characters occurring at chapter breaks. From a

literary perspective, such a shift in narrative style presents numerous differences to the traditional third-person approach taken in the other two texts. Massie suggests that the first-person perspective allows the author to “engage the reader's interest and sympathy straightaway.”¹⁶⁹ The audience, now seeing the action from the eyes of the protagonist, experiences the literary world without the benefit of an omniscient narrator. The rhetorical significance of this change in the audience’s perception of the events within the text is clear: Kress has switched to a narrative format that by default allows the audience to better identify and consubstantiate with the messages and ideologies of the three protagonists.

Further enhancing the connection between reader and character is the choice of narrator. Instead of having Leisha or another Sleepless serve as narrator, a logical choice given the developments of the first novel but one that presents a protagonist difficult to identify with given the advanced enhancements, the three main characters are relatively “normal” for the textual setting: Vicki, a Donkey with only basic genetic modifications, and two Livers, the visual artist Drew, who is able to hypnotize the unenhanced with his act of abstract shapes and colors, and Billy, an ignorant but generally content elderly man. With three narrators, the audience is able to identify with each separately and share their experiences as they navigate through a changing world. For example, Vicki’s worldview early in *BC*—“It wasn’t that I objected to irrevocable changes to humanity; in fact, that frequently seemed to me like a good idea. Humanity didn’t strike me as so wonderful that it should be forever beyond change. However, I had no faith in the kinds

¹⁶⁹ Massie, “First Person Singular.”

of alterations that would be picked.”¹⁷⁰—is revealed directly to the audience, rather than relayed through a disembodied narrator. By presenting this perspective and the many varied ones throughout the text in such an easily identifiable manner, Kress encourages the audience to do the same outside of the narrative; to reach out, observe, learn, and exist within a dialogic relationship with the other. Applying this mentality to the transhumanism debate suggests the following: single voices and views are too narrow to sufficiently address the ethical issues raised by biotechnology; therefore, incorporating multiple viewpoints, much like in *BC*, becomes a key to overcoming the current rhetorical stalemate because it requires a baseline openness to other perspectives that is generally missing in the language emerging from the pro- and anti-transhumanist factions.

The connection between the audience and the character is strengthened by the varied language Kress creates for each protagonist. The differences in jargon are most evident in Billy, the elderly Liver living in an isolated and poverty stricken community in upstate New York. The divide in language between Livers like Billy and Donkeys is almost as pronounced as the genetic and class differences between the two groups. Redundant pronouns and the use of double negatives litter Liver speech: “Every once in a while I need, me, to go off in the woods. I didn’t used to tell nobody. I stay out there alone, me, for five or six days, away from all of it...I build fires, me. The deep woods might as well be in China.”¹⁷¹ An omniscient narrator could only present the degradation of language through quotes but the effect is amplified by having Billy narrate nearly one third of the text. The reader experiences the Liver argot not just in quotes, but in Billy’s

¹⁷⁰ Kress, *Beggars and Choosers*, 29.

¹⁷¹ *Ibid.*, 76.

thoughts and internal monologue. A rhetorical struggle calling for eloquence ensues: the audience has as much trouble reading Billy's words as he has articulating them. The struggle to communicate eventually subsides as the syntax becomes more familiar creating a strong identification between reader and protagonist that is made possible through the use of first-person narrative. The enhanced no longer empathize with the Livers due to the language barrier, but Kress' audience still has the ability to understand, acknowledge, and identify with the Liver's plight, offering a reminder that regardless of genetic modification, humans have the responsibility to be open to one another. Billy may have only a few discernable skills in comparison to Donkeys, but from his position as narrator, he wields considerable rhetorical impact.

Unavoidable when evaluating the Livers' dialect is the harsh reminder of the potential unexpected consequences of enhancement. Due to the effects of first-person narrative on the reader, this critique resonates emphatically. The goal of enhancement, both in the novels and in transhumanist rhetoric, is always some improvement over current human existence; it never begins with the intention of forcing populations into oppressed positions because they could, or would, not enhance. Transhumanism's supporters and opponents clash over this scenario: how will the rest of society live once the first transhuman steps are made? The Livers' verbal and societal regression is a strong criticism of this important transhumanist talking point but can additionally be read as a call for openness. Billy's intellectual shortcomings, no doubt a product of the Livers' lowly position within the social hierarchy, cannot mask his innate goodness and value as a human being. Donkeys, believing that Livers would only drain resources, offered their unmodified brethren a trade: a carefree and content life for a complete loss

of agency. They acted in a close-minded manner, not willing to accept the call of conscience that Livers offered, instead fashioning society to reflect Donkey goals and cast the others aside. A conversation between Billy and Vicki underlines the discord between the two populations: “You take everything, you, away from us...and then you wreck the what’s left.’ *Not me,*’ she said, hard. *Not the government.* The government is what kept all of you alive after you became utterly unnecessary to the economy.”¹⁷² Donkeys molded post-enhancement society to align with goals of the minority, without consideration of the rest of the population. Billy’s struggle to accomplish his goals as he lifts the veil of oppression reverberates within the audience because of the connection created through following his narrative in the first-person. If such an unequal scenario is the result of failing to appreciate the other, then quite clearly the opposite approach, open-minded, inclusive dialogue, must be a more productive alternative.

Another characteristic of first-person narrative that carries significant rhetorical impact is its ability to place the narrator and the reader in the same time and space within the story.¹⁷³ The effect of experiencing the action simultaneously is enhanced by the “diary” style of writing Kress utilizes in *BC*. Vicki, Billy, and Drew do not retell the events of the narrative in a way that suggests a memoir; there are no reflections on incidents that indicate the passing of a number of years. Instead, what occurs in the text happens with a sense of immediacy and urgency, as if the protagonists were recalling the day’s events that night. Reviewing the events in such a way suggests the hero and the reader move through the events gradually. Highlighting this effect, Romberg states “The narrator’s epic situation does not give him any all-embracing and definitive retrospective

¹⁷² Ibid., 137.

¹⁷³ Massie, “First Person Singular.”

view over the events covered by his story, but only some short, concentrated, frequent backward glances.”¹⁷⁴ The reader is situated directly within the action, at the expense of the narrator’s reflections years later. The choice of diary composition within the first-person narrative structure is most appropriate for *BC* because it is the only book within the series that characters experience and articulate living through a radical enhancement.

Prior to the “Change,” all enhancing was done in utero, so individuals were born with modifications. In *BC*, Vicki and Billy experience the “Change” after taking what they thought was just “the Cell Cleaner” in a desperate attempt to stave off a fatal virus. The combination of the Supers’ nanotechnology eradicates all internal harmful entities and allows the recipient to feed by ingesting organic material through their skin as opposed to eating food. The reader is not given an omniscient view of this radical alteration to human existence and is instead presented with Vicki’s first-hand account of a change that is without question transhuman:

At noon I felt a sudden, overwhelming urge to sit by the river. This urge struck me with the force of a religious revelation...Once there, I took off my clothes, an act as uncharacteristic and as unstoppable as public diarrhea. It was forty degrees and sunny, but I had the feeling it wouldn’t have mattered if it were below zero. I *had* to take my clothes off. I did, and stretched full length on an expanse of exposed mud. I lay on my back in the sun-softened mud, shivering violently, for maybe six or seven minutes...Unable to move. And then it was over, and, still shivering, I sat up and dressed again...My body had fed.¹⁷⁵

¹⁷⁴ Romberg, *Studies in the Narrative Technique of the First Person Novel*, 43.

¹⁷⁵ Kress, *Beggars and Choosers*, 276. Emphasis in original.

Whether or not a modification like the “Change” could ever happen in reality is irrelevant; what is imperative in this passage is the revelation of what it feels like to be fundamentally different after enhancement. Told in the first-person with the reader alongside, the disclosure of such a profound change encourages the discussion of the positive and negative actions that led to this particular scenario. Put slightly differently, Kress engenders deliberation on transhuman technology, and therefore ethical deliberation, because she presents the experience of going through a transhuman event in way that is more real and immediate to the reader than traditional third-person narrative.

Additionally, the diary style approach to first-person narrative serves as a confessional outlet for each narrator. Romberg adds: “The diary device gives to the reader a pronounced feeling of intimacy with the narrative and above all, with the narrator. From this it also follows...that it is most suitable for the psychological study of the self, where the first-person fiction serves first and foremost, not to disclose an external series of events around the main character, but rather to reflect the [eddyings] of these events in his mind.”¹⁷⁶ A confession means many things to many people, but at its essence it represents a cathartic event that unencumbers by revealing a truth. Analyzing *BC* through this broad lens, the thoughts and words of each narrator augments the rhetorical impact of the text by providing consensual access to the inner workings of the protagonists. There is no omniscient narrator plumbing the psyches of the unaware, rather each character is confessing to the audience because he or she chooses to engage in the act of disclosing the truth. The characters open themselves up to the reader without the benefit of retrospection to allow for reflection and qualification. The audience

¹⁷⁶ Romberg, *Studies in the Narrative Technique of the First Person Novel*, 44.

observes the protagonists as they are, once again creating a strong emotional attachment to the characters. The ethical quandaries and judgments they must face effectively translate over to the reader.

Drew's ethical dilemma is the most significant in the text. His status as Miri's lover makes him the only non-Super with preliminary access to the development of the "Cell Cleaner" and the "Change," but he is also a Liver, and closely connected and sympathetic to their plight. At the outset of the text he uses his hypnotic power to aid the Supers' goal of restoring agency to Livers knowing that they will soon be free of the Donkey's control when the "Change" is eventually released on a widespread level. Although a seemingly worthwhile and ethical endeavor, Drew soon begins to question the morality of letting the small group of Supers dictate the future of humanity, even if it is, by all accounts, with everyone's best intentions in mind. Realizing he's lost his own agency and become a pawn to the Supers—"Inside was a ten-year-old boy, dirty and confident, his eyes bright...I hadn't seen him, me, in decades. He made his own decisions, undaunted by what the rest of the world said he should do. I hadn't seen him since... [he] gave his mind to the superior ones"¹⁷⁷—Drew deceives Miri and alerts the genetic authorities of the Supers' plan: "Miri—you don't have the right to choose for 175 million people. Not in a democracy. Not without any checks and balances."¹⁷⁸ Despite making an ethically legitimate decision, Drew is racked with guilt about betraying Miri, leaving his final confession, presumably a suicide note in the text's final chapter: "Oh,

¹⁷⁷ Kress, *Beggars and Choosers*, 239–249.

¹⁷⁸ *Ibid.*, 259.

Miranda...I'm *sorry*. I never intended...But I would try to stop you again. And I don't expect you to understand."¹⁷⁹

Through Drew's confessions, his reclamation of agency is gradually revealed, as is the ideology that decisions regarding the future of humanity must be made by the people not for the people. Transcribing this worldview onto the transhumanism debate, decisions regarding radical biotechnology are for the general population, not a handful of experts. Exposing the confessions of one protagonist through diary style first-person narrative urges the reader to come to the same realization; if Drew's ideology can change throughout the novel, then the closely linked reader, following along for all the action, should be able to come to the same ethical conclusion.

Underlying the other elements of first-person narrative structure is its realistic portrayal of how humans experience one another in the world. Massie notes that "In short, using the first-person allows us to present other people as they must be: that is, ultimately mysterious beings."¹⁸⁰ There are no omniscient beings that see everything, and if there are, they are certainly not relaying information to humanity in a reliable manner. The first-person narrative eschews the construction of such an all-seeing entity, instead opting to present the story in a manner akin to actual existence. Cohn suggests that first-person narrative is "a dialogic, 'protean,' incomparably polyvalent narrative genre."¹⁸¹ The format promotes dialogue because even the most articulate and inventive writer, if staying true to the form's conventions, must stay within the confines of the narrator's perspective. Just like in reality, a protagonist cannot know for certain what

¹⁷⁹ Ibid., 316. Emphasis in original.

¹⁸⁰ Massie, "First Person Singular."

¹⁸¹ Cohn, *The Distinction of Fiction*, 58.

others are thinking or feeling; she can only make assumptions or inferences gleaned from communicative acts. The limitations of one perspective force the narrator, and ultimately the reader, to act dialogically simply because it is through the acknowledgement of others that information replaces assumptions. Put simply, first person-narrative structure engenders dialogue because narrators and human beings possess the ability to experience existence through only one channel; dialogue is the only way of knowing more about the other beings that inhabit the world. This is true both in text and in reality.

The first-person, diary style format of *BC* presents an interesting paradox: confession, which is often a very private event, stimulates dialogue, which is by definition an act of being open. Moreover, the limited perspectives of the narrators within the text encourages further dialogue in reality in order to incorporate a wider range of ideological input into decisions on biotechnology and transhumanism. The dialogic structure inherent within the text spurs the ontological desire of humanity to be open and act ethically toward the other. I believe this push toward openness to be the overarching rhetorical goal of the trilogy; it resonates most clearly in *BC*, thus having the greatest rhetorical impact, because first-person narrative best mirrors human existence and provides an easily identifiable approach to handling the transhumanism debate in a dialogic manner by emphasizing the consequences of not proceeding down a more open-minded path.

* * *

This chapter closely examined a number of rhetorical strategies employed in the *Beggars* trilogy, including: the use of synecdoche and metaphor, the impact of unintended consequences within the narrative, the translational effects of plausible

scientific language, the role of criticism, and the switch to a first-person narrative style. The hope has been to show how a work of science fiction can move the transhumanism debate from its currently defined position of monologue and close-mindedness to a more dialogic, constructive middle ground where actual progress on important issues can be made. Another goal has been to demonstrate why it is vital that the general population become involved in the decision making process, suggesting that reading science fiction like the *Beggars* series is an appropriate start in preparation for global deliberations. While these may seem like fairly simple and obvious goals, the antagonistic rhetoric clouding the transhumanism debate suggests that more books like Kress' need wider readership.

The questions linger, despite the analysis above: in terms of the transhumanism debate, where does humanity find itself, where should it go, and where *is* it going? As should be clear from the clashing ideologies and the amount of information still to be shared with the public, humans are not prepared to come to a definitive, majority decision regarding radical biotechnology. Unfortunately, if the rate of technological and scientific advancement continues on its exponential curve, humanity does not have much time to figure out what to do before the procedures and enhancements of science fiction become a reality. The *Beggars* trilogy's implications on the transhumanism debate have been discussed in this chapter and will be expanded upon in this thesis' conclusion. Additionally, the final chapter will provide closing thoughts on how humanity can pragmatically navigate through the rhetorical stalemate blocking progress toward dialogic deliberation, as well as considerations for an ethical approach to transhumanist biotechnology.

CHAPTER FOUR: IMPLICATIONS AND CONCLUSIONS

Examining the rhetorical significance of the *Beggars* trilogy makes for an interesting case study on how science fiction can be read to promote ethical deliberation. The underlying message of the analysis is actually quite simple: to promote openness and community. Yet for reasons largely derived from problematic rhetoric emanating from the transhumanism debate, the togetherness needed to come to a decision on transhumanist biotechnology is dwarfed by antagonism and close-mindedness. The current unproductive status of deliberation demonstrates the need for the *Beggars* trilogy to serve a rhetorical purpose and also offer practical application to alleviate the lack of openness within the transhumanism debate. Unfortunately, the pragmatic ramifications of the text are slightly more difficult to identify than its rhetorical implications, leading to a pair of vitally important questions: How does one apply Kress' dialogic ideology to a debate defined by monologue, and, is the rhetoric of the transhumanism debate even capable of being shifted in a more open direction?

To suggest how the series can positively affect the transhumanism debate it is necessary to begin by reshaping the public's understanding of science. The process starts by transforming the information the general population uses to generate knowledge by infusing it with the dialogic ideology advanced by Kress. The newly re-informed public subsequently demands better, more open, policy from legislators. Garreau states that "we have to recognize the dangers at the same time as we accept that transformation is coming, and figure out how our solutions will accelerate at the same pace as our challenges. Figuring out how to expedite the response of our culture and values also

helps us learn what these tests of our humanity are telling us about human nature.”¹⁸² Humanity must now create the tools that allow the species to deal with what may occur in the future. With this imperative mandate in mind, I begin my final chapter by proposing a practical application for the ideology encouraged by the *Beggars* series. I present the argument that such application in turn positively affects the transhumanism debate by eliminating, or at the very least subduing, the impact of monologue-driven rhetoric. I close with thoughts on where a more ethical approach to transhumanist discussion might lead humanity, by reviewing the scholarship of this thesis, suggesting further research, and promoting my own scenario for thinking about the future of humanity based on the ethics espoused by Kress.

The Practical Implications of the *Beggars* Trilogy

When examining the series’ societal role from a pragmatic perspective, establishing its rhetorical impact is the first important task, one that I undertook in the previous chapter. I argued that the trilogy can reposition transhumanist discourse toward a more dialogic approach and offered explanations and examples on how it successfully does so. But for all the rhetorical significance the texts have, they cannot accomplish anything in reshaping transhumanist debate unless they are introduced to a larger audience. Referencing data on public understanding of science and science fiction’s epistemological value from previous chapters, the impact the *Beggars* trilogy has on the transhumanism debate would increase if it were used more as a teaching tool rather than a work of fiction. I have argued that in terms of creating plausible scenarios the series proposes possibilities just as legitimate as the likes of Bostrom, Fukuyama, or any other

¹⁸² Garreau, *Radical Evolution*, 247.

respected contributor to pro- or anti-transhumanist discourse. Kress, Bostrom, and Fukuyama all speculate on what may occur when in reality humanity cannot know for certain what will transpire; that the former uses the genre of science fiction should not discredit or invalidate the ideology promoted with the text.

Placing the *Beggars* trilogy rightly alongside works of non-fiction based on its value to the transhumanism debate opens up new audiences for the series. Now read as something capable of shaping thought on humanity's future, the ethical perspective advocated in the texts warrants inclusion in any bioethics curriculum around the country; academic programs instructing the next generation of bioethicists on the promise and perils of transhumanism should include science fiction on the syllabus. The series is an appropriate artifact for inclusion for a number of reasons, many of which led me to select it for this thesis. It creates a plausible scenario through the use of appropriate and accessible scientific language and exists within a time frame that the audience is comfortable imagining. More importantly, and unlike works of science fiction that vilify enhancement, the trilogy weighs both the risks and benefits of transhuman biotechnology, avoiding either/or binaries. The effect is one that reinforces Garreau's quote above: it prepares humanity as best as possible now so that it can most effectively handle the challenges presented by inevitable changes to the species. Teaching emerging bioethicists a more ethical, dialogic approach to evaluating transhumanism by making Kress' series required reading better prepares those often responsible for shaping public understanding of biotechnology with handling difficult questions regarding the future of humanity in an open-minded manner.

The general population might not get much science information directly from bioethicists but they do absorb knowledge disseminated through media sources. The media, however, is reliant on bioethicists and turns to them often for quotes and expert commentary. So begins the trickle-down effect of how bioethicists affect public understanding of science. Introducing the new generation of bioethicists, those trained with the help of the *Beggars* trilogy, into the cycle between the media and the public adds a new perspective that can combat or replace the one-sided arguments often presented by the current proponents and opponents of transhumanism. Dialogic rhetoric is substituting for the problematic transhumanist rhetoric at the point of distribution to the public.

Once the new rhetoric begins to spread, an alternative approach to transhumanism slowly diffuses throughout the population, and then gains momentum as humanity comes to realize what is at stake. This, of course, is an over-simplification of what would occur; there will always be bioethicists promoting less dialogic alternatives and individuals unwilling to appreciate the position of the other. Important to remember, though, is that the components are in place to initiate a significant change in how humanity perceives transhumanism. Introducing spokespeople trained to be more open-minded through exposure to texts promoting a dialogic ideology offers the media new voices to quote and metaphors to rely upon when informing the public about new biotechnology information. The cycle that helped spread the antagonism of the current transhumanism debate can be reused to deconstruct the monologic rhetoric and rebuild discourse using the new ethical, dialogic perspective.

A shortcoming of this proposal is the time it will take to unravel the deep rooted and widely held beliefs people have regarding enhancement, both positive and negative.

Cultural knowledge may not incorporate the new dialogical worldview fast enough to appropriately handle encroaching transhumanist technology. How long will it take the media to stop evoking *Brave New World* when discussing enhancement and instead mention *Beggars in Spain*? It might never be the case that science fiction classics are completely replaced by newer additions to the canon, but as the speed of technological advancement increases, so does the rate at which knowledge spreads throughout the population. Ten years ago, a reader had to actively search out news; now through tools like Twitter, it is brought right to the individual directly from the source seconds after it occurs. The increase in 24/7 news programming and the rise of blogs also give more opportunities for the new bioethicists' dialogic ideology to reach a wide audience.

Additionally, the use of social media and leveraging personal fame can aid the spread of more open perspectives on transhumanism. Members of both sides of transhumanist discourse have found considerable success with social media; Bill McKibben has nearly thirty-three thousand followers on Twitter, easily surpassing Ray Kurzweil's eight thousand,¹⁸³ still a substantial number in its own right.

Although the *Beggars* trilogy is the only artifact discussed at length in this thesis, other works are equally capable of producing rhetoric that reconstitutes the transhumanism debate in a more dialogic location. The task of spreading open and communal deliberation on transhumanism becomes less daunting when considering the numerous media capable of circulating the ideology, the speed at which messages travel in society today, and the impact of the media on public understanding of science.

¹⁸³ As of March 2012.

Training a new kind of bioethicist and cultivating a more informed public are two important practical applications for the trilogy. The most forceful pragmatic impact the texts can have, however, is altering policy decisions. As is made clear in the novels, a few individuals do not have the ethical right to make existential decisions for the majority of the population. Ethical policy comes from taking into account what the public wants and what is good for the greater population in general. The intersection between what the public requests and what legislators will do to retain office is already a complicated dynamic; transhumanism clouds the situation further because the power to make decisions regarding biotechnology currently rests in the hands of so few, including those who might have very different ideologies than constituents. Changes in policy, therefore, must originate from an engaged population; citizens becoming so loud regarding an issue that elected officials have no recourse but to respond. The point at which the public informs politicians on how to approach transhumanism in an ethical, dialogic manner is the final reification of the practical application of Kress' ideology.

Such a public movement originates with new bioethicists responding to discoveries in biotechnology with an open-minded perspective within traditional and social media. The public then responds to the more inclusive commentary and begins to form its own views on transhumanist technology, coalescing into one strong voice determined to resolve issues concerning enhancement, nanotechnology, and artificial intelligence as opposed to championing one ideology as better than the other. Eventually policy makers respond to the public outcry and enact plans based on compromise and openness that benefit the entirety of society.

While this proposal surely is an overly idealistic outcome to a very complex problem, the notion that the *Beggars* trilogy can have a massive pragmatic impact, as well as rhetorical one, is just another plausible scenario to go along with everything else predicted about transhumanism. Reading Kress reveals an ethical perspective more open to the other than many works of non-fiction regarding transhumanism, proving to be equally, if not more beneficial to progress within the debate than one-sided texts such as *The Singularity is Near*, *Our Posthuman Future*, or other works that present problematic rhetoric. The trilogy, therefore, warrants teaching in venues where the complexities of transhumanism and its implications on humanity are discussed and investigated.

Conclusions on the Rhetoric of the Transhumanism Debate

Theorizing on the practical applications of the *Beggars* trilogy prompts the important question of whether or not the rhetorical stalemate limiting dialogue can be overcome. Is the transhumanism debate as it currently stands a situation that can be alleviated through rhetoric? Judging from the analysis in chapter two, and despite the rhetorical significance of Kress' series, it appears unlikely that one artifact, science fiction or not, has the potency to influence leaders of pro- and anti-transhumanist factions to consider alternative positions. Applying one of Bitzer's prerequisites, the transhumanism debate is not a rhetorical situation because the audience cannot be persuaded.¹⁸⁴ Garreau highlights the dogmatism of both sides of the debate while observing a prominent biotech conference as an audience member:

Genetic engineering is wicked, the crowd in the charm-free auditorium at Yale University is being told. They fidget as bioethicist George Annas scolds

¹⁸⁴ See Bitzer, "The Rhetorical Situation."

them...Tinkering with our gene pool—altering human nature as we have understood it for millennia—is unspeakable...The burden of proof should be shifted to researchers. Make them prove harmless any species-altering or species-endangering experiments...That’s just the old precautionary principle, responds Gregory Stock, who is sitting to his left...Annas’ suggestion is just another way of saying that we should never do anything for the first time...The precautionary principle is just a way to block research without admitting that [that] is the goal.¹⁸⁵

In this anecdote, the conference presented the perfect opportunity to discuss the benefits and risks of transhumanism in a dialogic manner, yet it never rose above anything more than monologue about ideological talking points. Garreau’s example, while only one incident, epitomizes the written rhetoric of the transhumanism debate. One trilogy, no matter how rhetorically profound, will not affect the loudest transhumanist supporters and opponents in ways that reposition deliberation on advanced biotechnology in a more ethical location.

Although the current “talking heads” within the transhumanism debate are too firmly entrenched and invested in their ideologies to be open to the other, I remain optimistic that the *Beggars* trilogy can have a positive impact on discourse. This optimism, while perhaps seeming misplaced, originates from the knowledge that the so-called experts will be inevitably replaced by new voices as technology advances. Discussion on the possibilities of the future will need fresh voices to emerge to mold reaction to new developments. Instead of attempting to change the close-minded

¹⁸⁵ Garreau, *Radical Evolution*, 229.

ideologies of those currently ingrained within the debate, the target should be those who are still forming their perspectives on biotechnology. The situation might not currently be rhetorical, but as a new audience enters, one more receptive to Kress' ideology of openness, it replaces those marked by intractable antagonism, thus creating a new rhetorical situation. To instill an ethic marked by dialogue within emerging worldviews, rhetorical artifacts such as the *Beggars* trilogy need to, at the very least, be read as often as the books that helped create the current impasse in discourse. As explicated in the previous chapter, the series emphasizes the importance of being open to the other, as well as documenting the acceptability of malleable ideologies and the importance of critical thinking. All three of these lessons, each found in the *Beggars* texts, are necessary to overcome the rhetorical blockade halting progress within the transhumanism debate. The next vital step is ensuring that individuals still able to see the benefit of dialogical deliberation have access to such rhetorical artifacts.

Indoctrination of dialogue's importance must begin alongside the discovery of developments in biotechnology carrying the potential to drastically alter the future of humanity. By initially stating the stakes of the technology together with the value of dialogue, little room is left for the introduction of idyllic and nightmare scenarios too commonly disruptive of the transhumanism debate. The question then becomes when to begin teaching the dialogic perspective. Certainly classes that address bioethics should be providing students with texts that promote a dialogic method to discussing transhumanist technology. The *Beggars* trilogy is ideal for achieving this purpose, but similar works could be equally beneficial. I recommend the process begin even earlier, at the high school biology level, because decisions on transhumanism effect entire

populations, not just those enrolled in bioethics classes. The benefits of instructing a broader audience on a dialogical approach to discussing transhumanism are plentiful, especially when done so through the medium of fiction: the public becomes better informed about various transhuman scenarios, preparations for existential decisions begin earlier, and the debate moves from the experts to its rightful place within the public sphere, giving the general population a voice in decisions that will affect the course of human history. The inclusive approach will not reveal all answers regarding the species' future, but it will give humanity an opportunity to address transhumanism in a more ethical manner, circumventing the extant rhetorical roadblock. Put slightly differently, the *Beggars* trilogy does not alleviate the current rhetorical impasse as much as it provides a more ethically viable alternative for humanity to take.

One trilogy serving as a catalyst for a species-wide movement away from antagonistic language and toward dialogue may seem like a naïve pipe dream. I admit that such a drastic change to the transhumanism debate seems unlikely in the near future, as it is much easier to gain fame taking a radical perspective rather than promoting a community-based ideology. But I do sincerely believe and have argued that in its current status the transhumanism debate is moving no closer to a resolution, one that is badly needed as the technology predicted in fiction and non-fiction alike hurtles closer to reality. A resolution, one way or another, is required if humankind is going to prevail. Humanity must unite in its support for or against transhumanism and the rules and regulations governing biotechnology must reflect this unity. The current approach is failing; I offer an alternative that may be more beneficial. The scenario presented in this thesis argues that humanity currently has the capabilities to attempt a dialogical approach

to the transhumanism debate, beginning with the *Beggars* trilogy. With so much at stake, it cannot hurt to attempt a new tactic.

Considerations for an Ethical Approach to the Transhumanism Debate

This thesis has focused almost exclusively on how to promote dialogue within the transhumanism debate through science fiction; it would be an oversight to not offer some concept of what a dialogic approach to deliberation might entail. As previously mentioned, the transhumanism debate currently exists as a non-rhetorical situation due to key contributors lacking the openness to be influenced by the other's rhetoric. That is not to say transhumanism as an ideology does not offer a rhetorical situation. In fact, the opposite is true. The transhumanist ideology is a profoundly rhetorical worldview in that it compels individuals to act even in the absence of definitive evidence. Thus, a disconnect emerges: an ideology that promotes rhetoric and action leading to a debate that stagnates progress by being overly dogmatic. Rather than preparing the audience to productively discuss the myriad issues concerning transhumanism, the rhetoric of the debate is too emotionally charged and manipulative to serve any ethical purpose. The current status of transhumanist discourse, however ineffective it may be at producing anything of benefit to humanity, does not prevent asking the question: what does an ethical approach to discussing the prospects of species-altering biotechnology actually look like? An answer to this question, one that suggests that humanity may not be far off from the goal of dialogic deliberation, is provided below.

The essential components for engendering dialogue are sound philosophical and phenomenological evidence documenting the connection between ethical interaction and rhetoric, and a medium or delivery vector disseminating the fundamentals of the ethical

approach. This thesis argued that Kress' *Beggars* trilogy is one such delivery mechanism. Returning to the former required element, phenomenological backing for emphasizing openness between the two sides of the debate comes from what Hyde refers to as the "call of conscience." If, as Hyde suggests, humans are "beings who are perpetually caught up in the temporal-historical process of understanding our existence, of trying to come to terms with the meaning of what was, what is, and what may continue to be..."¹⁸⁶ then the call of conscience *is* the process of trying to reveal the existentially unknown: "The call of conscience, in other words, confronts us with the question of what it means to be...the call of conscience brings us face-to-face with the fact that we are creatures whose desire for the 'good life' requires us to assume the personal and ethical responsibility of affirming our freedom through resolute choice."¹⁸⁷ Human being is defined by this openness to the call; rhetoric, therefore, becomes the necessary symbolic tool for communicating and revealing the great unknowns about existence.

Hyde then turns to Levinas to fill in the gaps of what it is exactly that humanity is open to. Existence is shaped by its relation to the other: it is necessary to remain open to what alterity offers because humanity's well-being is dependent on others.¹⁸⁸ To be born is to accept that life is nothing without acknowledgement from the other and that existence is repaying this favor: "We can pay this debt only by listening and responding to the other's call for recognition, respect, companionship, help, and perhaps love."¹⁸⁹ This process is eternal: "For a finite being, however, the debt can never be paid in full; for as soon as one chooses to respond to the call of the other, a sacrifice must be made

¹⁸⁶ Hyde, *The Call of Conscience*, 24–25.

¹⁸⁷ *Ibid.*, 25.

¹⁸⁸ *Ibid.*, 93.

¹⁸⁹ *Ibid.*

that increases the debt. What is sacrificed are the obligations the person also has to respond, in the same way, in the same instance, to all the others whose calls beg for acknowledgement.”¹⁹⁰ The job of being open to the other is never over. By combining the philosophical approaches of Heidegger and Levinas, Hyde provides the phenomenological support for how to ethically approach the transhumanism debate: responding to the call of conscience without eschewing one’s responsibility of openness. Rhetoric, the disclosure of the experiences and truths of existence, is the language of ethical deliberation, forever acting as the catalyst for moral being. The *Beggars* trilogy offers a similar ideology and, as a widely read work of fiction, is an appropriate vehicle for spreading the alterity-focused reply to the call of conscience. Thus, dialogic deliberation within the transhumanism debate is created.

With phenomenological support in place and a method for distributing the open ideology to a mass audience readily available, the question becomes how a dialogue-based approach with the other manifests itself in the transhumanism debate. The first effect is the ideology’s critics acknowledging that regardless of how they rhetorically position human nature, some magnitude of change is inevitable. Humans have always desired some form of transcendence; what started with religion has now shifted to technology. The call of conscience cannot be denied. Knowing more about existence and yearning to explore the unknown are elements of human nature that ensure that humanity is always changing. Some fluctuations are more drastic than others, but ontologically the species exists to change. To suggest that humanity is fine in its current status fails to recognize that the call of conscience is impossible to switch off. It exists

¹⁹⁰ Ibid.

within all beings yet originates from alterity; therefore, it is ever present and never completely knowable because understanding and acknowledging one aspect of otherness indicates a focus on one specific thing, rather than being open to all. There will always be an unknowable other that beckons humanity to try to understand; thus there is always a catalyst present for stimulating change. The opponents of transhumanism must reevaluate their rhetoric to focus on ways to direct the upcoming change instead of trying to prevent what ontologically cannot be stopped.

Acquiescing on the topic of human nature requires openness from critics of transhumanism. It is an important first step to make in moving deliberations toward a dialogical direction, one that is justified by the profound changes and increased ontological knowledge many technological advancements have had on humanity throughout existence. The x-ray is rather mundane example of using dangerous technology to generate existential knowledge. Any risk posed by getting an x-ray is far outweighed by the information it reveals.

It is imperative to note that the openness shown by critics of transhumanism must be reciprocated by supporters of the movement for true dialogue to occur. Transhumanists can begin to “pay their debt” to the other by removing from the group’s rhetoric any subjective judgments on the value of transhuman life. Transhuman technology promises only something different; no one is in a position to quantifiably state whether or not the modifications are beneficial before the advancements are even developed. Optimism is acceptable, but feigning certainty to help justify a point shows a decided lack of openness. Wanting to know more about humanity is not an element of existence that can be judged right or wrong; it simply *is*. Assigning a positive value to

wanting to meet the call of conscience through biotechnology is akin to judging individuals on their ability to breath.

One can begin to see how the transhumanism debate appears different when Kress' ideology of openness permeates deliberation. By the simple act of being open, two major rhetorical roadblocks—clinging to an erroneous concept of human nature and positioning transhumanism as an irrefutable improvement on current existence—are removed rather easily.

Deliberation marked by openness to the other helps eliminate the antagonism within the transhumanism debate. Too often discourse is a back-and-forth volley of critique between pro- and anti-transhumanist factions. Criticism is an important component of discussion and policy decisions, but if it is done for no other reason than to drown out the other side, then it proves more harmful than good. Garreau summarizes the current status of discussion succinctly: “One side sees the dangers and wants everything stopped. The other side sees the promise and serves as cheerleaders. They talk past each other.”¹⁹¹ It is only through remaining open to the other that humanity can hope to truly, and ethically, reap the benefits of transhuman technology because it is the only ideology that enables the type of inclusive deliberation needed to address such existential problems. The spread of an open perspective is why humanity needs books like the *Beggars* trilogy. The phenomenological support and widespread distribution are both in place to start making progress toward dialogue. The future of the species balances on the outcome of what comes into existence first: humanity's ability to ethically decide on its future progress or the technology that can make transhumanism a

¹⁹¹ Garreau, *Radical Evolution*, 247.

reality. Humankind will find itself on much steadier ground if the former proceeds the latter.

Suggestions for Future Research

I began by opining on the future and will close with similar speculation. I hope along the way I have revealed something that was previously unknown regarding the transhumanism debate and science fiction. Even if the disclosure is fairly obvious that humanity must be open to the other to solve the issues transhumanism presents, it still must be stated, for it rarely happens in the rhetoric of the debate. I remain optimistic about the possibilities of transhumanism, yet wary of the risks. My optimism is further reinforced by the knowledge that solid opinions on transhumanism are hard to find in the public sphere; in fact, few people I spoke with about this project even knew what transhumanism was. The problematic rhetoric of the transhumanism debate has not permeated the general consciousness. There is still time for the dialogic ideology to become the standard by which humanity discusses transhumanism.

Kress' trilogy is a good start, but it is only a start. Many more science fiction texts require the rhetorical analyses demonstrated in this thesis. The artifacts that best promote ethical deliberation need to be discovered and distributed. Rhetorical scholars must explicate what makes the texts so rhetorically profound; how do the numerous texts mean and how can this knowledge be used to prepare for future biotechnology? If nothing else, this thesis has taken a fairly popular, but by no means commonly known, work of science fiction and elaborated on its rhetorical impact. Others must now follow, critiquing both best sellers and more esoteric works.

Similarly, further rhetorical criticism on the non-fiction works emerging from the transhumanism debate is necessary. For artifacts that hold such potency, there is a startling lack of analysis found in the literature. I suspect this has to do with the “distant future” feel many of the texts have. But scholars of rhetoric would be wise to turn to these artifacts. A significant impact on the direction of humanity emerges from pro- and anti-transhumanist works; analyzing the texts through the lens of any number of rhetorical theories may prove incredibly insightful as humanity grapples with difficult and topical existential questions. The time to stake a claim for this immense rhetorical territory is now.

When reminiscing about the decisions made regarding transhuman technology, whether in 10, 100, or 1,000 years, I hope that it is still the case that any anxiety I felt toward the future was the result of my ontological desire to better comprehend existence rather than a premonition of a calamitous misstep caused by a lack of dialogue. Quaint as this reverie might seem, a decision on transhumanist biotechnology may be the most profound choice any human living over the next fifty years must make. Technological progress has never relented in the past and I believe that for the betterment of humanity it cannot grind to a halt now. Whatever decision is reached, it must be done through dialogue and with complete openness to the other; otherwise ethical corruption will lead to one of the various nightmare scenarios of transhumanism becoming a reality. The rhetoric of the *Beggars* trilogy helped position me to better discuss the pressing issues regarding transhumanism; my hope is that the rest of the population is not too far behind in joining me. I leave behind this thesis to hopefully do some small part in revealing an

ethical approach to the transhumanism debate, allowing me to rest easily in the present and in the future.

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CIRRICULUM VITAE

Sam Fletcher

434 E. 4th Street • Winston-Salem, NC • 27101

203.219.7820

Fletsw0@wfu.edu

EDUCATION

- Wake Forest University, Winston-Salem, NC*
M.A. in Communication **2012**
 Thesis: “Overcoming Limitations: The Rhetorical Impact of Science Fiction on the Transhumanism Debate”
- Wesleyan University, Middletown, CT*
B.A. in American Studies **2004**
 Concentration: Mass Media and Cultural Studies

TEACHING EXPERIENCE

- Wake Forest University, Winston-Salem, NC*
Teaching Assistant – Department of Communication **2011-2012**
 Courses Taught: Introduction to Film, Introduction to Mass Communication, Persuasion, Historical/Critical Research in Communication, Public Speaking
- Tutor** – Department of Communication **2012**
 Courses Tutored: Presidential Rhetoric, Classical Rhetoric, U.S. Rhetoric To 1900, Introduction to Rhetoric and Communication

PUBLICATIONS AND PAPERS

- “The Raven Changes His Song: How Populist Rhetoric Guided Sam Houston’s Transformation from Union Champion to Southern Ally”
 Rhetoric and Public Address Division, Southern States Communication Association Annual Convention, San Antonio, TX; 2012
- “Semiotics and New Media: Bringing Barthes’ Second Order Signification to Political Communication in the Digital Age”
 Maryland Communication Association Annual Conference, Frostburg, MD; 2011
- Book Review – “*Dirty Words: The Rhetoric of Public Sex Education*”
Women’s Studies in Communication, in press

AWARDS & MISCELLANEOUS

- Finalist – Top Student Paper, Rhetoric and Public Address Division, Southern States Communication Association Annual Convention **2012**
- Wake Forest University Teaching Assistantship **2011-2012**

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

<i>Wake Forest University, Winston-Salem, NC</i> Student Representative – University Honor & Ethics Council	2012
<i>Wesleyan University, Middletown, CT</i> Staff Writer and Columnist – Sports Department <i>The Argus</i>	2003-2004
Varsity Football	2000-2004

MEMBERSHIPS

Southern States Communication Association

Maryland Communication Association