

TECHNO-APOCALYPSE: ANALYZING TECHNOCRACY IN *CAT'S CRADLE*, *ORYX AND CRAKE*, AND ITS REAL WORLD ANTECEDENTS

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by  
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## Abstract

### TECHNO-APOCALYPSE: ANALYZING TECHNOCRACY IN *CAT'S CRADLE*, *ORYX AND CRAKE*, AND ITS REAL WORLD ANTECEDENTS

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This thesis interrogates the relationship between technocracy and the destruction of the world in two contemporary works of speculative fiction, *Oryx and Crake* and *Cat's Cradle*. The creation of technologies within a closed society and the asymmetries of power that develop from the distribution of technology lead to observable shifts in biological, social, and environmental realms. The development of this technocracy in the twentieth century is reflected in the maturation and expansion of science fiction, as writers within the genre attempt to criticize material and cultural elements of technocracy through their work. Vonnegut and Atwood display how a technocratic society leaves crippled environments and disabled, genetically altered, and abused bodies of human and non-human animals in its wake. The last chapter will discuss the negative effects of technocracy in the social realm, specifically turning to linguistic regressions, the dissolution of familial bonds, and the denial of subjectivity to those not involved in the creation, dissemination, and control of technologies. The variation in the technologies that Vonnegut and Atwood focus on, as well as the scope of the damage inflicted by their technocratic societies, reveal the historical realities of these authors situated in two distinct epochs.

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## Table of Contents

Abstract.....	iv
Acknowledgments.....	v
Introduction.....	1
Chapter One: Historical Developments of Science Fiction and Technocracy.....	9
Chapter Two: Scars of Techno-Apocalypse on the Environment and on Human and Non-Human Animals.....	42
Chapter Three: Love, Expression, and Subjectivity in a Technocratic World.....	89
Final Thoughts.....	126
Works Cited.....	129
Vita.....	133

## Introduction

This thesis examine two literary works, Margaret Atwood's *Oryx and Crake* (2003) and Kurt Vonnegut's *Cat's Cradle* (1960) as dramatizations of the apocalyptic ramifications of the political, social, and economic system operating currently in the United States—technocracy. In *The Heavens and the Earth: A Political History of the Space Age* (1985), Walter McDougall defines technocracy as “[t]he institutionalization of technological change for government purposes, that is, the government-funded and managed r&d [research and development] explosion of our time” (5). McDougall's definition mainly captures the political and economic aspects of technocracy in which the State invests in the research and development of technology—particularly that which is suitable for war. However, as many Marxist and materialist critics have pointed out, the deterministic base/superstructure model set forth by Karl Marx ignores the interplay between systems of production and culture. Similarly, McDougall's definition fails to underscore the value systems that shape, and are shaped by, an economy centered on state-funded technology production.

I will use *Oryx and Crake* and *Cat's Cradle* as a lens through which to untangle the co-created economic, political, and *cultural* realities of a technocratic state. Both novels take place in the United States or, in the case of *Oryx and Crake*, what previously was the United States. Additionally, both novels highlight how the development of technology—for war, for national superiority, and for the extreme profit of a select few—has become the very center of the economy. They criticize technocracy by showing the incredible damage and injustices wrought by this kind of system. This, again, is where McDougall's definition fails to cover the depth and scope of technocracy. It is not simply a system in which the government redirects its interest and investment into technology production. More than that, technocracy

is a system that reorganizes and redefines the entire labor force and all the citizens of this country, creating increasingly deeper divisions of wealth and subject-positions. Throughout this thesis, I will touch on the inherently alienating elements of technocracy and the depth of this alienation from global to individual levels. In a globalized world, one cannot isolate one nation's culture and economy. Technocracy happens on a global scale, and Atwood's and Vonnegut's novels detail how American technocracy has affected other nations for the worse. The apocalypses in both novels stem from biotechnologies created for war or for intentional harm, and apocalypses know no national boundaries.

Taking a comparative framework suits the historical character of this project. I am looking at the *development* of a multi-faceted system, and, as the novels are separated by half a century, their similarities and dissimilarities reflect how technocracy has continued to develop after the 1960's and what other political and cultural factors have mutated it. As such, I take a historicist perspective in the first chapter. Vonnegut and Atwood are called upon to demonstrate parallels between historical developments and the concerns of their work, but much of the textual analysis will come in the second and third chapters.

The first chapter takes Vonnegut's and Atwood's aversion to the science fiction label as a point of departure. It will show how the development of the science fiction genre, which becomes increasingly more political in the mid-twentieth century, is linked with the solidification of technocracy. Here we see the interplay of the base and superstructure—the definition and parameters of science fiction change as authors respond to this economic reality. This chapter will demonstrate several developments simultaneously. I will explain how the practice of science and the research and development of technology have changed in the twentieth century. I will show how these changes have fostered an anxiety characteristic

of the modern era surrounding technological development and the experience of historical time. Finally, I will show how the relationship between the individual and technology has become estranged. To do this, I will look to different periods of history including antiquity, the shift to the modern era, and the industrial revolution. While these periods reveal an increasing alienation from technology through time, they will not be examined as a linear narrative. Rather, I will draw upon them as a mode of comparison and a means to explain the current state of the individual's relationship with technology in a technocratic era and how that is related to a greater societal and individual alienation.

Chapters Two and Three will reveal how the material reality of a technocratic state and the concomitant value systems that it fosters leaves irreparable physical and cultural damage. I organize chapters Two and Three based on similar effects that both novels highlight. Thus, Chapter Two will discuss how both novels showcase the effects of a technocratic system on the environment and on human and non-human animal bodies. Chapter Three will in turn investigate the impact of technocracy in social structures. It will show how this system damages relationships—threatening familial, romantic, and platonic love—as well as how it mutates, curbs, and controls language and expression. Within these chapters, I analyze the different ways in which Atwood and Vonnegut approach these themes. For example, I will explain what historical elements led Vonnegut to choose to end the world with ice and Atwood to end the world with a pill.

Let us briefly summarize the content of each novel, starting with *Cat's Cradle*. *Cat's Cradle* is a reflexive novel. The novel's narrator, John, is writing *Cat's Cradle* to explain the events leading up to his present, which is the days after the destruction of the world. *Ice-nine* was invented by Dr. Felix Hoenikker, one of the creators of the atomic bomb who John

researched as he attempted to write a book on the bombing of Hiroshima. Dr. Hoenikker develops *ice-nine* while working for the General Forge and Foundry Company in Ilium, New York, Vonnegut's fictional version of Troy, New York. An army general asks Dr. Hoenikker to come up with a solution to mud because it hinders soldiers from moving effectively and contributes to soldier fatalities. Dr. Hoenikker develops *ice-nine* which alters the property of water so that any contact with *ice-nine* would freeze the water. Since all the world's water is connected, however, the spilling of *ice-nine* turns out to be apocalyptic. Indeed, all of the world's water thus freezes. Moreover, the accident freezes the fauna as well, as their roots take in the *ice-nine* tainted groundwater. Immediately after the spill, the atmosphere, John notes, seals like a dome and hundreds of tornadoes appear, ravaging the human survivors of the spill.

John begins his narrative by flashing back to his investigation of Dr. Hoenikker, and how this brought him into contact with Hoenikker's three children—Newt, Frank, and Angela Hoenikker. John's research and a myriad of coincidences eventually bring him to the island of San Lorenzo where the Hoenikker children currently reside. All of Dr. Hoenikker's children possess some *ice-nine* and have used it to buy political power as well as lovers. On the flight to San Lorenzo, John thumbs through an encyclopedia on the island. He learns that it is controlled by the despotic president Papa Monzano who, in the face of his people's overwhelming squalor, lives in extreme comfort. This book proves to be immensely impactful in John's life. He immediately falls in love with the woman on the front cover, Papa Manzano's daughter Mona. He also first learns of a popular religion on the island, Bokononism, which Papa Monzano has outlawed. John's interest in Bokononism increases throughout his journey, and he eventually converts.

His reflections throughout the novel are, therefore, colored by the ideologies and terms of Bokononism. Bokononism was founded by a man named Bokonon who sought to ease the pain of San Lorenzo's inhabitants who were living in such terrible conditions. The religion is paradoxically built upon the assertion that all that can be found within The Book of Bokonon—the “sacred” text of Bokononism—will be lies. Bokononism promotes a deterministic world view, that everything happens “as it was supposed to happen” (84). Such determinism births Bokononist terms such as a “karass,” which is the social organization of the world. Every person has a karass, a team of people doing God's will “without ever discovering what they are doing” (1). After the apocalypse, and influenced by Bokononist sentiment, John reflects that all three of the Hoenikker children must have been part of his karass. He also changes his name to Jonah, an ironically biblical reference to the prophet Jonah. In the final chapter of the novel, probably moments before John's transition to Jonah, John meets Bokonon. Bokonon provides John with the last sentence of *The Book of Bokonon* in which Bokonon ingests *ice-nine*, freezing himself in his last position, “thumbing [his] nose” at God.

Like John, the protagonist of Atwood's *Oryx and Crake* also changes his name after an apocalypse. The narrator, formerly known as Jimmy, cynically dubs himself The Abominable Snowman, which he shortens to Snowman. Unlike John, who survives the apocalypse in *Cat's Cradle* with a small group of people, Snowman has no human assistance or companionship. He often hallucinates that Oryx, the woman he loved who was killed during the apocalypse, is with him. There is likely a dual cause to these hallucinations. Snowman's mental state is unquestionably affected by the trauma of the apocalypse and his loneliness. However, he also lives in an incredibly hot environment that is ravaged by

monsoons. There is little naturally growing food, and omnivorous, genetically-altered animals escaped during the apocalypse. Snowman, then, must constantly fight heat and thirst and external threats in order to survive, and his physical state is in decline. Atwood's work is meant to take place in the near future, perhaps 50 years from when it was written in 2003. She thus presents an environment that has become inhospitable due to climate change. While the apocalypse in *Cat's Cradle* fundamentally changed the Earth's environment, the apocalypse in *Oryx and Crake* left the environment relatively untouched apart from the accidental release of genetically-altered animals that will likely disrupt the ecosystem. The real damage done to the environment in *Oryx and Crake* was already happening, as the overconsumptive and materialistic culture of the dominating world powers necessitated untenable food and material production.

*Oryx and Crake* takes place in what used to be the United States. Jimmy is the second generation of people under the power of unimaginably profitable corporations that overthrew the political structure of the U.S. Many of these corporations produce technology such as consumer goods and biotechnology, such as genetically-altered plants and animals, to increase ease of living. Many of these consumer goods are targeted towards entertainment and beautification. The corporations maintain their power in an equally Huxleyan and Orwellian manner. Their military unit, the Corp(se)corp is heavily armed, and during the coup, many citizens' guns were taken. Moreover, incredibly tight security leaves little room for personal privacy and allows the corporations to attain loads of personal information.

Part of the security measures taken by the corporations was the widespread division of the US landscape into closed Compounds and lawless pleeblands. The corporations physically separated themselves and their employees from the rest of the outside country, the

Pleeblands. Each corporation—such as HelthWyzer or RejoovEsense—have their own Compound, complete with schools, grocery stores, restaurants, and spas. However, transportation between the Compound and the Pleeblands is incredibly limited by the Corp(se)corps. The corporations have literally achieved the status of civilizations. Those that live in the Pleeblands, and in other countries that the corporations exploit, live in poverty.

We learn about these elements of society through the omniscient narrator, which jumps into Snowman's thoughts often, taking the reader away from the present. Snowman is a useful tool to learn about the events leading up to the apocalypse, as Jimmy was the only person who was ever let in on the plan. His best friend, Crake, intentionally generated the apocalypse, murdering Oryx and taking his life in the process. After earning a top position as a scientific developer at RejoovEsense, Crake creates a pill, called BlyssPluss, which promises high sexual drive and performance, feelings of euphoria, and freedom from STD's, among other things. He spreads this pill across the Compound and the Pleeblands. However, hidden within the pill is a virus that will slowly develop in the coming weeks, killing whoever takes it. Crake has been secretly giving Jimmy immunity, and only tells Jimmy about his full plan in the final moments before he kills himself.

While at RejoovEsense, Crake also creates a genetically altered humanoid species, called the Crakers. Crake designs the Crakers so that they may avoid all of the problems Crake associates with humanity. They, therefore, create little waste—they can eat their own feces—they are herbivores, are not monogamous, and have been genetically designed to have little capacity for symbolic thinking. He keeps Jimmy alive so that Jimmy may take care of them as they transition out of the lab and into the world. Crake essentially wishes to wipe out the human population and start over, recognizing the Compound culture's extreme

degradation of the environment. Though certainly the most extreme revolutionary, Crake is not the only one working against the culture of the Compound. Many religious and environmental groups form in the Pleeblands to protest against and undermine the work of the Compound. When Jimmy's mom deserts the family, Jimmy suspects that she joined one of the more prominent counter-movement groups, God's Gardeners. At the end of the novel, Snowman, about to die from a bite to the leg, discovers a few of God's Gardeners on the beach. The novel ends as they approach Snowman mid-faint.

It is my hope that upon finishing this thesis, the reader will understand that the economic, political, and cultural elements of technocracy all work in tandem leaving physical, emotional, and intellectual scars. This thesis, particularly the first chapter, looks to the past to explain the present. It underscores the development of the world from Vonnegut's mid-century perspective to Atwood's. Therefore, the very nature of this project looks to the future as well. Vonnegut and Atwood wrote their apocalyptic novels by examining trends already happening in the real world. We must ask ourselves, as readers fifteen years removed from *Oryx and Crake*, what about *now*?

## Chapter One: Historical Developments of Science Fiction and Technocracy

The Cold War, and the decades that followed it, produced a myriad of novels investigating international and societal power relations and their associations with technological production. Two such pieces of literature, Kurt Vonnegut's *Cat's Cradle* (1963) and Margaret Atwood's *Oryx and Crake* (2003) also share in the nebulous genre that has been attributed to them—science fiction (SF). The development of SF and the relationship of these authors to that genre reveal shifts in literature and culture that occur in tandem with the political and societal developments of the late twentieth century. The thematic and generic parallels between the work of Atwood and Vonnegut exemplify a broader social phenomenon of anxiety and excitement about the power of technology when co-opted by the state. In different historical moments dating as far back as the Early Modern period, a pattern emerges that as science and technology progress, the average citizen feels more and more alienated from them. As this techno-anxiety heightened in the mid-twentieth century, authors utilized SF as a creative outlet to express their growing concerns regarding the relationships between technology and society and technology and the individual. Authors using SF in this way changed the definition and parameters of science fiction. Atwood's and Vonnegut's inclusion of science fiction settings and characteristics to critique aspects of society illustrates the increasingly political function of SF in the twentieth century. At the same time, their rejection of the genre reveals the disparaging conception of the genre still held by some today.

Margaret Atwood, born in 1939, is a Canadian poet, novelist, and essayist. The recent television adaptation of her dystopian novel *Handmaid's Tale* (1985) has made her a household name, if she was not already, and this work received a nomination for the Man

Booker prize. A survey of her work reveals her interest in feminism and environmental activism, which we will see more explicitly in *Oryx and Crake*. These feminist and environmentalist impulses also appear, among others, in one of the many American authors of the Cold War era, Kurt Vonnegut (1922-2007). He is known for the dark humor, which spans across his 14 novels. Vonnegut wrote his first novel, *Player Piano*, in 1952 and soon thereafter he was well known in literary and non-literary circles. Vonnegut's works notoriously include space excursions, alien species, fictional technologies, and time bending, leading critics to label his work science fiction. And while Atwood prefers to keep her characters within orbit, she has also received the same label for her creation of dystopian worlds, fictive technologies, and transgenic characters.

Atwood has rejected the application of SF to her work, citing confusion about the term. In her essay "Writing Utopia," she asks: "[i]s this term a corral with real fences that separate what is clearly 'science fiction' from what is not, or is it merely a shelving aid, there to help workers in bookstores place the book in a semi accurate or at least lucrative way?" (203). Atwood's question indicates that she sees the application of the genre as a limiting lens through which to read her work. She, somewhat cynically, believes that the genre is merely used as a profit-making tool by the publishing industry. Similar to Atwood's argument, Vonnegut believed that the criticism of society within his work would be ignored if his work was labeled science fiction. However, Vonnegut and Atwood flirt with science fiction, utilizing the settings and themes associated with the genre while simultaneously denying any connection to it. They have captured the attention of critics and academic communities while being able to avoid being locked into the commercial audience and generic limitations of SF. It is from this liminal literary space that Atwood and Vonnegut

have propelled important discussions about the genre, who writes it, and its field of influence.

If speculative fiction could be characterized by a type of punctuation, it would be the question mark. Speculative fiction, which is often set in the future, makes our present into the past. These kinds of narratives see the potential of certain negative aspects of today's world to intensify in the future (Thomas). This temporal maneuver inevitably raises questions such as "how did now become then?" These future settings make the reader examine our experience of time and the relationships between past, present, and future. On the other hand, science fiction, speculative fiction's more ambiguous parent genre, can be varying levels of realistic or political. It can blend with related genres such as fantasy or myth. Science Fiction is particularly flexible in terms of medium, as SF ranges from television and film to novels, short stories, and comic books (Thomas). Despite the genre's flexibility, the many sub-categories of science fiction are all bound by the impulse to ask "what if?"

This impulse can be found across the expansive timeline of SF works. P.L Thomas's introduction to *Science Fiction and Speculative Fiction: Challenging Genres* (2013), provides a history of science fiction as a genre. It outlines the controversy regarding the application of the SF label that Vonnegut and Atwood both have been vocal about. Thomas finds the origins of SF in works dating as far back as the 16th century, such as Sir Thomas More's *Utopia* (1516) or Cyrano de Bergerac's *Comical History of the States and Empires of the Moon* (1657); the latter may be the first depiction of a rocket-powered space ship. However, the genre is largely a product of the twentieth century. It became prominent in mass market magazines like *Pulp* before achieving what is referred to as a Golden Age in the

mid-twentieth century (Thomas 24-25). As a commercial genre or paraliterature, SF was then—and continues to be—associated with fluff, the “popular,” comics, and Hollywood.

Because of these associations, in the early twentieth century, SF would not be construed as high art, and in an era before cultural studies, the political nature of an SF work would most likely have been mostly ignored in academic circles. It would not be difficult to speculate that Vonnegut’s and Atwood’s aversion to the label stems from the conception that the genre is less literary. Indeed, in 1965, Vonnegut writes:

Years ago I was working in Schenectady for General Electric, completely surrounded by machines and ideas for machines, so I wrote a novel about people and machines, and machines frequently got the best of it, as machines will. (It was called *Player Piano* ....) And I learned from the reviewers that I was a science-fiction writer. I didn’t know that. I supposed that I was writing a novel about life, about things I could not avoid seeing and hearing in Schenectady, a very real town, awkwardly set in the gruesome now. I have been a sore-headed occupant of a file-drawer labeled “science-fiction” ever since, and I would like out, particularly since so many serious critics regularly mistake the drawer for a tall white fixture in a comfort station. (qtd. In Thomas 2-3)

Vonnegut’s assertion that Schenectady is “a very real town” suggests that science fiction contends with that which is not real. When he writes about things he could not avoid seeing, about observable reality, he implies that SF does not reflect these things. However, this thesis will reveal that SF is a genre encompassing various types of literature that provide commentary on society at present as well as the human condition. Vonnegut’s suggestion that SF exists in a vacuum outside of reality is shared by Atwood. Atwood’s corral metaphor closely resembles Vonnegut’s file-drawer, revealing that they both are apprehensive about disconnecting their literature from the world they wish to draw attention to. They appear to hold the outmoded perception that SF is paraliterature, literature dismissed as non-literary such as comic books or genre fiction. They fear that such a designation would exclude their

work from being received and utilized in a critical manner. While Vonnegut places the fault for this misconception on the critics, he does not attempt to defend, redefine, or champion the genre.

The settings of SF novels are often fictional, as Thomas points out: “SF, like fantasy, often builds and develops entire and seemingly new worlds” (6). Both Vonnegut and Atwood invent new religions and social practices, new forms of government, new kinds of bodies, new technologies, and new languages. Whether taking place on Earth or not, the culmination of these creations fashions markedly different, new worlds. The operative question is whether such fiction can be read in relation to “life in the gruesome now.” Thomas’s choice of the modifier “seemingly” loosens the novelty of these “new worlds.” Often, these new worlds emerge as an author plays with a concept already existent in society, drawing out the possible implications. This practice exemplifies the genre’s overarching rule of asking what if? It asks *what* elements of life, in very real places and in the gruesome now, could become more visible *if* one were to look forward.

Speculative fiction as a genre indicator has been claimed by authors, such as Atwood and Vonnegut, who are writing science fiction but who do not want the political nature of their work to be discounted. Claiming this distinction, these authors are merely playing into the elitist stereotype that SF *must be* apolitical fluff. However, if we consider one of P.L. Thomas’s first examples of SF—More’s *Utopia*— we can see the political nature of these otherworldly narratives, for is not every consideration of a utopia an inherently political one? It requires examining the values of a society and their possible ramifications when taken to the extreme. Therefore, any claim to the unreality of SF is unfounded. The division of speculative fiction from SF makes assertions about the value of speculative fiction over SF. It

is an elitist definition that parts from the earlier definition of speculative fiction. This earlier definition is associated with Heinlein and refers to speculative fiction as a particular brand of SF characterized by near-future settings and thought experiments regarding aspects of the present. The new definition of speculative fiction has replaced the older and contributes nothing towards a critical understanding of a given work. It merely maintains a false and elitist binary about what is considered literary. As such, I will make no distinction between speculative fiction and SF in order to prevent further misconceptions about SF as a genre and the literary value of those texts that fall within it.

Examining how Atwood and Vonnegut take from the “gruesome present” will clarify the links between their works of SF and the society in which they lived. In fact, this mutating of present social elements into fictional worlds challenges the limits of a clear-cut distinction between fiction and reality all together. Exploring current discourses about women’s bodies and their obligation to bear children, Atwood’s *The Handmaid’s Tale* (1985) imagines a world where an environmental crisis has rendered most women infertile. An extreme Christian sect takes control of what was previously the East Coast of the United States. Fertile women called Handmaids are held captive and repeatedly and ritualistically raped. This sect justified their sexual violence by manipulating the biblical story of Abraham, Sarah, and her handmaid. Vonnegut also uses infertility as a point of departure in his novel *Galapagos* (1985). After a global financial crisis, a disease spreads which makes nearly everyone infertile. The few people who avoided the disease (due to their being stranded on an island) slowly evolve into a bipedal sea lion-type creature with a significantly reduced intellect. He attempts to untangle discourses on the *forward* movement of human evolution while providing commentary on the harmful reality of American capitalism on the world

stage. However, he reaches a much more humorous conclusion. Between these two examples, it becomes clear that whether set on an island or in another galaxy, these authors utilize conventions of SF to explore issues that are often, in fact, *very real*.

As historians of SF, Keith Booker and Anne-Marie Thomas note in *The Science Fiction Handbook* (2009) that the use of SF as a tool for social criticism solidifies during its Golden Age in the 1960's. This is the decade in which Vonnegut wrote his third through sixth novels, at which point he has become nationally recognized. Booker and Thomas point out that "SF distinguished itself as a genre and as a contrast to literary fiction throughout this Golden Age, notably by focusing on 'social and political issues' instead of the strong characterization emphasis in literary fiction" (8). The genre in its Golden Age became primarily a tool for criticism of and speculation about society rather than a means to produce art that would be considered high brow. As a result, elements that often mark a text as literary were more or less ignored in favor of fashioning a political message. For example, the characters served more as a vehicle for the political message of the story rather than as a central entity in the story's development.

Booker and Thomas provide Frederic Pohl and C. M. Kornbluth's novel *The Space Merchants* (1952) as an example of the political motivations behind Golden Age SF. The novel critiques the rampant consumerism of the fifties, creating a world in which businesses wield all the political power. Pohl and Kornbluth used the conventions of a genre that was not to be associated with literary merit—and therefore not taken seriously—in order to protect themselves from McCarthy-era pushback (Booker and Thomas 9). This allowed them to spread a controversial message and potentially incite change without putting themselves at risk. The various intentions and styles of SF illustrate its fluidity as a genre. The genre's

adaptivity allows SF works to bridge backward—as Vonnegut does in *Player Piano* when he considers his time at General Electric—and forward, as they foreshadow the epochal anxiety about technology.

The political applicability of SF can be illustrated by professor Aaron Passell, who currently uses SF novels and short stories in his sociology classroom. Because of the genre’s examination of social issues, Passell implements SF texts into his syllabus to teach societal structures and social issues. Passell demonstrates to his students that SF novels investigate topics such as sex and gender, race, human relationships, alternate political histories, climate change, bioengineering, pandemics, and capitalism and economic inequality (68). The “what if?” element of SF lends itself well to sociology. Passell writes:

In varying some aspects of social life, then, while holding others constant, SF novels enable us to perform experiments more like those that our colleagues in the natural sciences do. We can hypothesize a relationship, we can create a model to test it (methods intricately worked out in the course of the narrative), and we can examine our results, considering whether they confirm, dispute, or inflect our original conception. (59)

These works of SF act as a tool for sociologists and readers alike, challenging them to consider aspects of society and their potential consequences. In *Oryx and Crake*, the consequences of gene splicing and lab-produced transgenic organisms are “tested,” resulting in the invention of highly intelligent transgenic pigs used to store organs and headless chickens used for efficient food production.

As Atwood’s work stems from real world conditions, it is important to highlight the potential real world origins of details in her novel. An urban legend surrounding the fast food chain Kentucky Fried Chicken began to circulate in the nineties. People claimed that KFC’s recent name change was forced by the government as a result of KFC’s use of mutant chickens. Vonnegut would not likely include these kinds of transgenic bodies in his early

work, for gene-splicing technology had not yet developed. Secondly this would have been less of a concern for Vonnegut because the mass-production of chickens for consumption in chains like KFC had not reached the scope that it had by the time Atwood was writing *Oryx and Crake*. The KFC urban legend reflects some of the distrust in the 1990's regarding biotechnologies that alter, morph, and blend bodies when motivated by late stage capitalism. Atwood then transmutes this reality into her speculative work. These moments of disparity between Atwood's and Vonnegut's direction of criticism reveal economic and technological developments occurring between the publication of the two novels as well as the cultural responses to these changes.

At the University of Chicago, Vonnegut himself studied anthropology at the graduate level. After his thesis was rejected, Vonnegut eventually gave up on attaining his Master's. Years later Vonnegut received a call from the Dean of Social Sciences who offered him the degree "for having published a book of quality" ("A Very Fringe Character" 240). The Dean was referring to *Cat's Cradle*, and Vonnegut explains the Dean's decision: "[t]hat novel was anthropology, but invented anthropology: in it, I wrote about an invented society" ("A Very Fringe Character" 240).

This invented society, or to use Thomas's term, other world, was not written at random. Vonnegut's other worlds result from inquiry about social, economic, and political questions. Moreover, Vonnegut takes a material perspective in that they question the role of the objects in our lives. Both authors have noted that they hope their other-worldly speculation impacts their own worlds. The novel, in the case of Vonnegut and Atwood, is just as political as a manifesto. It is no coincidence that Vonnegut became a household name in

the fifties. Literary tastemakers were beginning to give merit to science fiction novels in this period when the genre took a political turn and therefore demanded more critical attention.

### **Epistemological Shifts and their Impact on the Formation and Development of SF**

Though Golden Age and contemporary SF can be distinguished from early twentieth-century SF based on political intent, the genre as a whole is unified by its attention to and interest in scientific development. P.L Thomas claims that “the rise of science cannot be separated from the rebirth of SF” (23). Thomas’s term “rise of science” is fairly ambiguous in terms the scope and timeline, but this chapter will clarify Thomas’s term by teasing out the various ways scientific inquiry has changed in the modern era, providing the impetus for the earliest works of SF. This “rise of science” includes changes in the methods and pacing of research (Dimarco 124) (Koselleck 29), shifts in public interest in the practice of science (Thomas 23), and the increased government and corporate interest in scientific development (McDougall 5).

One element of this “rise of science” surrounded a shift in epistemology that began during the Reformation (roughly 1500-1800 CE) (Koselleck 30). This shift in epistemology appealed to rationality in place of religious faith, placing verisimilitude in observable phenomena (Koselleck 30) (Roberts 60). Accordingly, the practice of science shifted to a process of observable and repeatable tests that shaped what we now call the scientific method. This shift in discourse and practice stimulated public interest, fostering the birth of SF (Roberts). In *The History of Science Fiction* (2005), Adam Roberts examines the changing perception and practice of science in relation to the formation of SF. He writes, “[t]he more science itself became an empirical, experimental discourse, and therefore the less place speculative impulse had in the practice of science, the more important science fiction

became” (60). Visible developments in the practice of science intrigued the public. This interest culminated in the inclusion of scientific themes in the literature of the following centuries.

The increasing amount of authority given to scientific inquiry during the Reformation is in fact the primary distinction between premodern and modern Europe (Koselleck 25). In *Futures Past: On the Semantics of Rhetorical Time* (2004), Reinhart Koselleck underscores the transition between these two eras. I will use his argument to contextualize the genesis of SF and shed light on what Thomas refers to as a “rebirth” of SF in the mid-twentieth century. Koselleck argues that the two epochs are separated by a transition in the experiences of time. He examines the eschatological shift that occurred during the Reformation in which the premodern concept of time, dictated by early Christian discourse, is replaced by a more rational formulation. He argues that both epochs experience time in relation to the end of the world, but the process of determining the end of the world undergoes a fundamental change. Koselleck refers to these two methods of predicting the end of the world respectively as prophecy and prognosis. In the modern framework, the end of the world can be calculated from observation, rather than predicted by someone in communion with God. The source of these eschatological predictions also highlights a crucial distinction between the two epochs. While prophecy relied on the authority of religious institutions, prognosis came from the state. These calculations of the world’s end came from the mouths of those enmeshed in the political institution. In fact, both *Oryx and Crake* and *Kurt Vonnegut* illustrate the connections between the experience of time and the power of the state. Both novels after their apocalypses depict a post-end time which is also post-state.

Koselleck claims that a mathematical calculation of the end of the world shapes the modern experience of time. This paradigm led people to experience time as occurring in different increments—a paradigm guiding the very logic of Koselleck’s argument, as he separates premodern and modern Europe. As the rate of scientific progress increases, we perceive a shortening of these progressive increments. Koselleck writes, “[s]tating my thesis simply, in these centuries there occurs a temporalization [Verzeitlichung] of history, at the end of which there is the peculiar form of acceleration which characterizes modernity” (25). The breaking of history into smaller and smaller increments—determined by technological developments—creates a perception that time is moving faster and faster. This becomes especially apparent in the twentieth century.

As a result, the perception that scientific and technological developments have occurred at increasingly rapid rates has created a sense of awe and fear in the technologically-driven movement of society. Just like a shift in the practice of science facilitated the creation of SF in the 17th century, I argue that the anxiety surrounding major changes in scientific practices in the twentieth century—such as the State’s investment and the hiked rate of new technology production—was redoubled by the sense that time is progressing at an increasingly faster rate. This two-fold anxiety directly facilitated the establishment of SF as a product of the twentieth century. The anxiety associated with this perceived acceleration of time provided the impetus for the genre’s progressively more critical nature during its Golden Age.

Techno-anxiety also informs topical shifts in SF after its Golden Age. Separated by half a century, Atwood’s conception of technocracy in *Oryx and Crake* differs drastically from that in *Cat’s Cradle*. The technocratic system permeates every aspect of Atwood’s

world. The incredible visibility of technology in the novel trumps that in Vonnegut's work. Atwood fills her work with invented weapon technology, fictive technologies for beauty and comfort, and a host of transgenic species. Jennifer Dorsey's essay "Peeling Apart Layers of Meaning in SF Short Fiction: Inviting Students to Extrapolate on the Effects of Change," expounds on the shifts in SF that Vonnegut and Atwood exemplify. She claims that the political nature of more recent SF is not the only crucial difference between it and older SF works. She writes, "modern and contemporary works of SF can be distinguished from earlier works by their increased attention to technology" (77). An increased focus on technology in this era highlights the anxiety of a populace wrapped up in the seemingly quickening pace of development. Vonnegut's and Atwood's works both fall in the category of modern and contemporary SF, but their variation in the representation of technology reveals how much their historical moments impact their fictional worlds. Atwood's more extreme vision relates directly to the technologically-determined incrementalization of time and the experience of an accelerating progress of time. As these increments appear shorter and shorter, anxiety about technology will become more visible in literary representations such as Atwood's.

Robert Heinlein and Arthur C. Clarke, referred to along with Isaac Asimov as the "big three" of SF, serve as fantastic examples of the central focus on technology in Golden Age SF. Dorsey analyzes the role of technology in the short stories of the big three. Originally published in 1955, Clarke's "The Star," speculates about how technology could potentially challenge faith when a Jesuit space explorer discovers that the star which brought Jesus to Earth also destroyed the lost space civilization they were studying. Due to the use of space technology, a devout believer has to reconcile his belief system with his discoveries. "The Star," according to Dorsey, "demonstrates the power science has to reveal holes in faith

and induce doubt in the faithful” (78). The lost civilization studied by the Jesuit astrophysicist also closely resembles human society, presenting the scientist with anxiety about humanity’s end. The anxiety regarding development manifests here in the potential for new technologies to undermine narratives central to society. The challenge to faith fostered by scientific development in this story also mirrors Koselleck’s theory in which rational discourses replace faith-based discourses.

Perhaps the oldest Golden Age short story, Heinlein’s first published work, “Life-Line” (1939), investigates technology in relation to another foundational societal and personal experience, death. Using theoretical physics, the protagonist, Professor Pinero, creates a machine that can measure the length of someone’s life, predicting the date of their death. The life insurance industry then, predictably, capitalizes on it. “Life-Line” follows the formula put forth by sociologist Aaron Passell. Heinlein considered the relationship between technology and economy, concluding that technology was primarily utilized for economic gain, privileging profit over ethics. He then illustrates this with the dubious behavior of the insurance industry. Indeed, Dorsey notes, “‘Life-Line’ looks at the ethics surrounding death— and not just how death affects us as individuals, but death’s role in society and how all too often, technology represents an economic force” (79). Heinlein thus tested his theory through literature, investigating the extent to which capitalist motivations will overshadow ethical concerns and social mores. He then chose one of the most extreme extents where ethics should play a role, illustrating that even in that case, it failed. Dorsey writes, “[m]ore than any other presented here, [‘Life-Line’] begs the reader to ponder if humanity should limit how technology is developed and whether the potential for protection outweighs the potential for destruction” (79). Questioning the relationship between technology, economic

motivations, and ethics, Heinlein serves as an exemplar for Golden Age SF. The question of technology's protective and destructive qualities remains relevant today. In fact, it rests at the center of the discourse on transhumanism. Atwood builds on this debate in *Oryx and Crake*. In her novel, corporate scientists develop biotechnologies to extend human life. However, the economic system hinders the majority of the populace from gaining access to technology, treatments, and medication. The novel asks its readers to consider the purpose of and ethics surrounding technologies which are inaccessible to a large majority of people.

In contrast, a popular pre-Golden Age science fiction series, *Barsoom* (1917), by Edgar Rice Burroughs, demonstrates the different functions of technology and authorial intent between pre-Golden Age and Golden Age SF. The first novel of the series, *The Princess of Mars*, focuses mainly on a galactic romance between Thuvia, one of the Princesses on Mars, and her suitor. The monarchic system in place on Mars, along with the kidnappings and sword battles that fill the series, indicates that this early-twentieth-century brand of SF takes characteristics from Middle Age narratives and transposes them to space. Burroughs, of course, peppers in other worldly details such as foreign races, unfamiliar social norms, and telepathic communication. Though these stories incorporate technology, like the flying device used in *Barsoom*, they function as an aspect of world-creation and plot development. The text does not position them as a means of social commentary or push the readers to consider their societal ramifications.

Booker and Thomas add more nuance to Dorsey's claim about the central role of technology in SF. Dorsey focuses on SF from mid-century (Golden Age) to the present, but Booker and Thomas zoom in even more within that time period, comparing the mid-century Golden Age to the New Wave of the 1960's. They use terms like "hard" SF and "soft" SF to

characterize the works of those respective periods. The soft, New Wave is “more character driven and more concerned with the social and political ramifications of technological *developments* than with the technologies themselves” (9)[emphasis mine]. Because “hard” SF authors conceived of SF as oppositional to literary fiction, they turned away from or ignored elements of literary fiction such as deep characterization (Booker and Thomas 8). With the turn to New Wave, however, this oppositional framework begins to fall away, opening up the opportunity for a genre principally focused on political and social commentary, to also incorporate other elements of literary fiction such as complex characters and writing.

As writers pushing back against SF (due to their perception of the genre as apolitical and non-literary), Atwood and Vonnegut focus heavily on literary elements such as the psychology of their characters. The sequel to *Oryx and Crake*, *The Year of the Flood* (2009), follows the protagonist, Toby, who was once part of an oppositional, counter-cultural group called the God’s Gardeners. It details the rise of the group and their vegan and minimalist lifestyle, unearthing secrets about the founder’s covert attempts to sabotage the Compound system. Atwood punctuates the novel with Toby’s diary entries. This format privileges Toby’s feelings and reactions to the events around her more rather than the events themselves. Atwood’s feminism shapes her concern for the lived experience of her characters. Thus, as opposed to hard SF, her characters serve as more than simply a vehicle for the action of the story. Vonnegut wrote only two of his fourteen books before the 1960’s turn to New Wave, and his work certainly includes elements characteristic of New Wave material. For example, his characterization is emblematic of this era. His characters are often at the forefront of his stories. He build complex characters with strengths and faults, and he

shows them attempting to understand the world around them. Additionally Vonnegut boasts a unique writing style and employs literary references and biblical allusions that would mark him as a writer with literariness in mind.

Booker and Thomas's second point, about the attention given to technological development, rather than technologies themselves, in New Wave SF coincides with political developments at the time. The New Wave interest in technological *development* specifically is related to the changing force driving scientific discovery. Not only did the rate of development seem to be increasing in this era, but scientific research and development in the 1960's was becoming increasingly more involved with the interests of the state (McDougall 6) (Godden 175). Thus, the fear characterizing this era stemmed not only from Koselleck's argument about the perception of time or Dorsey's argument about the technologies themselves; the overt involvement of the government in the research and development of technology added a new level of fear about the changing nature of the scientific process. The process was then, and continues to be, backed and driven at the institutional level.

The fear of technology and technological development begins to germinate during World War II. The discourse of the Cold War era undergoes a transformation from that of the early-twentieth century. Public opinion regarding technology was generally positive then, but the destruction wrought in the world wars, especially the development and use of the atomic bomb, fixed doubt in the modern imagination about the possibility of a peaceful and predictable world. In the introduction to *Technology and Values* (2010), Craig Hanks writes about the various opinions of and approaches to technology, synthesizing historical accounts of popular opinion as well as the critical work of known scholars such as Martin Heidegger, Lewis Mumford, Marshall McLuhan, and Leon Kass. Hanks writes that discourse in the first

three decades of the twentieth century tended towards the progressive camp, which espoused a hopeful message that “technology could be harnessed with methods of scientific rationality to usher in a new era of peace, prosperity and flourishing” (2). Technology was not seen as a threat to the structure of society or the individual; rather, it was seen as a tool for the betterment for the world as a whole.

In “B.F Skinner and Technology’s Nation: Technocracy, Social Engineering, and the Good Life in 20th-Century America,” Alexandria Rutherford discusses public sentiment of the first three decades of the twentieth century regarding science, technology, and the betterment of humanity. Though she maintains that discourses on technology are and have been ambivalent, she recognizes a strong trend towards a positive construction of technology in the early-twentieth century. She creates a genealogy between the technocrats of the twenties and thirties and the famed American psychologist (and novelist) B.F Skinner. Skinner’s behaviorist approach, his inventions, and his novel *Walden Two* (1948) reflect the progressivist concepts of the technocrats. They espouse the belief that economic systems and humans, like an inefficient factory, can be improved when we observe the factors hampering production and use technology to ameliorate them.

The technocrats’ belief relies upon a faith in the scientific process, which we saw first take hold in the seventeenth century. Through the scientific process, social structures and individuals can be observed and experimented on in the same way that matter can be manipulated in a lab. This paradigm illustrates the optimistic view that technology can be used to fix large-scale economic issues along with personal and domestic ones. Through inventing the air crib, Skinner attempted to use technology such as climate control within a baby’s crib to increase the amount of time a baby would sleep, thus enhancing the

relationship between the mother and her child. An individual and their relationships could thus be bettered through the analysis of a problem and a technologically-mediated alteration of their environment.

This ideology of human improvement through technology is embedded in the discourses operating and literatures within the United States. The development of a more negative viewpoint in the midst of the twentieth century speaks to the extent of the political, social, economic, and technological transformations of the time. In *Technology and Culture in Greek and Roman Antiquity* (2007), Serafina Cuomo traces the root of the word technology to the Greek word “techne.” She analyzes “techne” and its variants in order to illustrate the role of techne in the individual and how it functioned in Greek society. Because techne is the root of the word technology, Cuomo’s work on the social function of techne reveals how some concepts of techne are embedded in our conceptions of technology while others are not. Techne in its most basic form can be described, according to Cuomo, as know-how, encompassing and going beyond “any single modern equivalent, such as ‘craft,’ ‘art,’ or ‘skill’” (1). The primary difference between techne and technology is that techne, and its roman equivalent “ars,” is a practice while technology is an object. However, some similarity appears between the Greek conception of how techne functions and the progressivist view about the use of technology to enhance society. Pointing to the Prometheus myth, in which Prometheus provides mankind with fire, Cuomo writes “[a]s for the wider significance of *techne*, we find the belief that its progress has accompanied, if not downright caused, the development of humankind from a brutish to a more civilized state” (18). From this perspective, techne functions as a propeller moving humans on their upwards

trajectory. This attitude, embedded in the definition of *techne*, is thus transferred to the definition of technology.

As we have seen, this conception of technology-driven progress was challenged after WWII and into the Cold War. In this moment, representations of technology in SF reverse the progress narrative. Indeed, the negatively determinist power of technology appears across works written by the “big three.” Asimov’s short story, “The Last Question” (1956) comments upon the extent of the role technology plays in the development of humanity. In it, a computer called the Multivac becomes incrementally more sophisticated, developing alongside humans and the humanoid species that evolve from them. The final iteration of the Multivac, called AC, outlives the hyper-intelligent ancestor of human beings and the universe itself. Still existing outside of the dimensions of time and space, AC exclaims “LET THERE BE LIGHT” (190), the first words of God in the Judeo-Christian tradition. The computer becomes God, the controller of the universe and implicitly the creator of the new man. Technology not only operates here as a force that shapes the individual and society, it instead *creates* man. Technology has become so transcendent, the text suggests, that it pre-exists man. Asimov’s story collapses time in the same reflecting my earlier claim about how SF as a genre blends the past, present, and future. Technology’s power over man in this story, and its eerie position in an absent universe, casts technology in a negative light.

The generic, stylistic, and thematic shifts of SF in its Golden Age are therefore symptoms of the deeply complex anxiety metastasizing in this era. The flexibility and reactive nature of modern and contemporary SF make SF an incredibly useful tool for analyzing history, such as Vonnegut’s and Atwood’s epochal moments.

### **The Establishment of Technocracy and Vonnegut’s and Atwood’s Artistic Responses**

During the sixties, in the midst of this post-war fear, the United States' political system became progressively technocratic, creating ripple effects amongst the other major powers of the globalized world. It is in this moment—where technology development is shaped and heightened by government investment—that we see the shift to New Wave, technological development-driven and character-centered SF. The Cold War rhetoric, which presupposed the United States and the USSR as the two possible poles of global power, promoted a technological competition between the two that resulted in the most glaring example of the establishment of technocracy. A brief discussion of this development will shed light on the system as a whole, what motivates it, and how it takes it root.

The competition between the USSR and the United States for political, ideological, and economic superiority was mediated through the advancement of technology—more specifically, the development of technologies to enable space exploration. After the USSR beat the United States to space with the successful launch of Sputnik in 1957, “[s]pace technology was drafted into the cause of national prestige. Later, advanced technology in general was tapped as the vehicle for national and internal regeneration” (McDougal 8). The rhetorical emphasis on technology as a means to establish the United States' trifold superiority increased the efforts of the state to invest in and control technological developments. The United States had lost the battle. The fear, so characteristic of this era, of Russia's potential impact on American society and the fatal consequences of nuclear war prompted the government's increased attention to space technology r&d in order to win the (Cold) war.

The state had invested in technology since the nineteenth century, but during the Cold War, the role of the United States government in the research and development of technology

had peaked (McDougal 6). As the nineteenth century came to a close, the state's interests shifted from growth to maintenance and protection, demonstrating an early shift in the United States' technocratic reach. According to McDougall, "institutionalized research and development (r&d) emerged only in the late decades of the [nineteenth] century...by the government's interest primarily in weapons and public works" (5). The state's interest in r&d continued and developed in the twentieth century, becoming more prevalent during the world wars when and the need for weapons peaked.. As technological superiority became perhaps the largest factor of the competition between the USSR and the US, the fear of nuclear destruction shook the American people as well as the non-aligned nations within the geopolitical sphere (McDougall 7). As a result, the United States government ventured the farthest it ever had into the research and development of technology. Vonnegut's novels include several weapons capable of catastrophic damage and the novels highlight the relationship between these weapons and the state. *Cat's Cradle* ends in environmental destruction from the chemical weapon ice-nine. *Slaughterhouse-Five's* Billy Pilgrim witnesses the UN-led bombing of Dresden. In *Deadeye Dick*, Vonnegut introduces the neutron bomb which kills people but leaves structures intact.

These examples inveigh against the government's hand in the creation and control of technology. Although the above examples specifically refer to weapon technology, Atwood's work clearly shows how the state control of r&d also consists of profitable consumer technologies. The state caused, and continues to foster, a shift in the practice of science. Not only does it impact *how* research is done, as evidenced by an increasingly experimental approach to research, but *what* is researched. The first priority of the technocratic system,

then, is to benefit of those in power. All other considerations of the uses and ramifications of technology fall second behind this first principle.

Outside the realm of scientific research and technological development, this political and economic shift to technocracy made waves across industries. According to McDougall, the technological revolutions of the 1960's substituted the exploitation of raw materials with that of knowledge. Skilled labor replaced semi-skilled labor as the primary means of economic progress (McDougall 8). These economic realities remain today. The white collar world fuels economic growth, and those within it are then endowed with power and respect. The real world Crakes and Felix Hoenikkens receive higher paychecks and greater esteem than factory workers, mechanics, plumbers, and the like.

Technocracy is a distinctly modern phenomenon. The power of the state to determine r&d and the related power afforded to those involved in this production is a product of the twentieth century (McDougall 9). Associations between *techne* and power have origins in antiquity, but the power associated with *techne* as a practice is not the same as the institutional power associated with technology as an object under technocratic control. Cuomo identifies this relationship between *techne* and power at play in Greek language, writing, “essentially the same thing appears to have been variously called *techne*, *sophia* (knowledge/wisdom), *episteme* (rigorous/stable knowledge), or *dynamis* (power)” (9). Here the definition of *techne* does not transmute into the definition of technology. While access to and understanding of technology is limited, *techne* was an individualized practice that a wide range of people possessed. Many day to day actions required the use of *techne*. For example, “(b)oth carpentry and medicine were *technai*” (Cuomo 1). The practices of carpentry and medicine produce a tangible end result, but even practices that did not yield material goods

were considered *techne*. Cuomo writes, “a rhetorician, capable of turning opinions around in the minds of his audience, and a sculptor, capable of turning a block of marble into the statue of a god, both qualified as technicians” (1). The *techne* of a rhetorician, largely a mental activity, and that of the carpenter, largely a physical occupation, were not seen as fundamentally different as they would be today.

While the type of a person’s labor separates individuals today into strictly demarcated socioeconomic groups, different kinds of *techne* in Greek society were not as distinguished and therefore did not create such rigid social lines. That is not to say that value placements regarding one’s *techne* did not exist. A rhetorician was certainly revered more than a carpenter. Moreover, the Greek society was fairly stratified, thousands were enslaved, and only property-owning men could vote. I mean, rather, to argue that social distinctions based on one’s *techne* were not as prevalent as they are now. There does not appear to be a white collar *techne* and a blue collar *techne*, whereas labor now is defined as skilled or unskilled, with those in the former category not only earning better pay but also receiving more social validation.

In *Capital: A Critique of Political Economy Volume 1* (1867), Karl Marx provides the path between the picture painted by Cuomo and the hierarchized labor system of what Vonnegut dubbed the “gruesome now.” In Marx’s thought, technology, as the means of production, is that which can be owned by the ruling class and thereby alienated from the working class. He criticizes the logic of capitalism for objectification of workers that results from equating their value with the product they produce. This phenomenon was particularly apparent when Marx was writing, the height of the Industrial Revolution. The associations between a person, or rather, a laborer, and the goods he takes part in creating, forged a social

hierarchization of different forms of labor. It situated factory workers, who repeatedly and tediously partake in only one aspect of the creation of a good, near the bottom of this hierarchy. Marx writes:

But [Political Economy] has never once asked the question why labour is represented by the value of its product and labour-time by the magnitude of that value. These formulae, which bear it stamped upon them in unmistakeable letters that they belong to a state of society, in which the process of production has the mastery over man, instead of being controlled by him, such formulae appear to the bourgeois intellect be as much a self-evident necessity imposed by Nature as productive labour itself. (670)

The hierarchisation of labor is so embedded in the logic of capitalism that it appears self-evident. The objectification of the laborer allows the process of production, a process both economic and technical, to hold more power than an individual. Industrial capitalism exploits individuals by the very nature of their labor, and this reality demonstrates how the scope of exploitation has widened when compared to antiquity. Without using the exact term, Marx describes the seed of technocracy in *Capital*. He not only analyzes the past but predicts the future. We see his fears artistically rendered, in the aforementioned short story by Asimov about the Multivac computer, nearly 100 years later.

The distancing of technology from the level of the personal and the hierarchisation of certain kinds of labor continued into the twentieth century, solidifying during the Cold War. While in the industrial age, an economic system prompted the multi-faceted alienation of individuals, the Cold War era alienation stemmed from a political system as well. As the United States government co-opted the research and development of technology to suit its own needs, this multi-directional alienation left the individual—the laborer, the employee—in a state of disenfranchisement.

Unsurprisingly, unease towards the changing power dynamics of the state to a more technocratic system was ubiquitous in the United States and was reflected around the globe as well. In the dawn of the Cold War, the President of the United States, Dwight D. Eisenhower (1953-1961), recognized the ramifications of a political and economic system so invested in scientific r&d. In his farewell address, Eisenhower cautioned against the state's influence in technological r&d and its global impact, introducing us to terms like “military-industrial complex” and a “scientific-technological elite” that we still use today (Mcdougall 9).

Vonnegut's work reflects Eisenhower's warning, demonstrating the effect of the military-industrial complex on a global scale. In a globalized world, even non-technocratic countries are affected by the technocratic system of the US and the economies of various global superpowers. In *Cat's Cradle* and *Galapagos*, Vonnegut takes his narratives to lesser developed countries. In *Cat's Cradle*, inhabitants San Lorenzo—and in *Galapagos*, citizens of Ecuador—are implicated in the technologically-mediated conflict and the technocratic economy of world powers. As we saw in the introduction, the acquisition of *ice-nine* by San Lorenzo's despotic leader, Papa Monzano, ultimately leads to an environmental apocalypse in *Cat's Cradle*. In *Galapagos*, an American's desire to attain the Japanese-made universal translator, the Mandarax, ends in murder. Moreover, the citizens of San Lorenzo and Ecuador are depicted in extreme poverty, hindered from participation in a global market based on the creation and trade of technology. Therefore, these systems figure prominently in the violent and exploitative treatment of the global other.

Eisenhower's statement was directed at his current globalized economic system—governed by national boundary lines, consisting of states and rogue states—but Atwood's

dystopia in *Oryx and Crake* imagines a scientific-technological elite that knows no national borders, drawing on the fear of a technological elite that no longer has national loyalty. In her world, corporations hold the technocratic power. Corporate, multinational scientists, and the business titans behind them, has destroyed what was the United States government.

Atwood's privileged elite take advantage of citizens from lesser-developed countries as well as the non-elite population of the West, using them as test subjects in their product development. The technocratic system born from government-sponsored r&d negatively impacts the whole world in both novels. However, in Atwood's vision, the "government" is composed of multinational corporate entities who form a loose post-national state built on technocratic power. No longer demarcated by national lines, or the East and the West, Atwood's world is merely broken into producers, consumers, and those who are not allowed to participate in either.

### **Social Attitudes and Public Discourses on Technology**

Though we have seen that discourse on technology has always been ambivalent, the twentieth century rise of technocracy ushered in a spate of theory and criticism concerning technological determinism. The predominant ideology in the face of technocracy's rise tended to promote a "thesis of technological determinism...that technology is itself a force that transforms the nature of human thought and action" (Hanks 2-3). At the time, the view that technology could transform humanity was seen as a threat. In this individualistic society, people did not like the idea that an extrinsic force could alter "individual" thought and choice. Of course, one's thoughts and actions are largely shaped by the world around us, but this fear exists specifically because technology is involved. Rapidly developing and increasingly complex, technology seemed (and continues to seem) so alien to the vast

majority of the population who did not have engineering degrees. Hanks's synopsis of the popular and academic perceptions of technology indicates that though the philosophers in the technological determinism camp are writing from diverse places, they all see technology as an uncontrollable force with an ability to warp social values.

The concept of technology as an extrinsic force and therefore something with the potential to violate one's free will can also be found in the language associated with *techne*. Although *techne* in antiquity was celebrated as a means for human progression, the end result of the application of *techne*, be it a speech or a shoe, was seen as something outside of the natural. Cuomo writes, "the products of *techne* would not exist without a specific, goal-directed, intervention on a pre-existing nature" (14). The creation of a new good or the alteration of a body through the *techne* of medicine alters or even works against the world that existed prior to the use of *techne*. The utilization of *techne* can be seen as an unnatural force, and this paradigm of *techne* as countering the natural order, being antithetical to nature, fosters a conception of *techne* that links it to artificiality. Cuomo writes "[i]ndeed, we often find *techne* in connection with *mechane*—an artifice, device or ruse" (13-14). This is not to say that the association between *techne* and *mechane* applies across the board, but that a certain distrust of *techne* existed because of the oppositional framework written into the Greek language. This is somewhat paradoxical considering that *techne* was seen—to put it simply—as one's individualized skill, as a part of a person. That being said, the binary created between *techne* and the natural lingers in the Cold War Era conception of technology.

The technological determinists, then, are responding to a belief established long ago and written into the very language surrounding technology. However, many factors of the twentieth century deepen the perception of technology as an extrinsic force. In the long

twentieth century, a perception of an ever-increasing rate of production, illustrated in the art of the fifties, meets with a political and economic system that separates those who understand the functioning of technology and those who do not, those who have access to consumer technology and those who do not. The creation of the suburb and the later development of tech-savvy communities such as Silicon Valley spatially represent this technology-driven population divide. The combination of these developments and their impacts on society perpetuates the fear of technology as an outside force separate from the individual or the natural. When the pacing of research seems out of control and the production, understanding, and use of technology alienates a majority of the population, the concept of technology as separate from and determinant of one's life strengthens.

Atwood witnessed the social climate that inspired New Wave SF and in which Vonnegut wrote *Cat's Cradle*. Young Atwood's job at a Jewish summer camp in the decade after WWII provided her with a glimpse of the trauma of WWII. Atwood recalls a man working for the camp in the fifties: "there was a man who peeled potatoes for the kitchen. He did nothing but peel potatoes. And he had a number on his arm. He was obviously a shell-shocked survivor that the camp had hired. Everybody knew he was there. Nobody talked about him. He was the forbidden man" (qtd. In Cooke). The trauma of WWII can be seen in the employees' collective repression of the cook's experience. It left its mark on Atwood, who transferred it into her writing.

Though Atwood and Vonnegut both observed the painful realities of WWII, Atwood wrote her first dystopia, *The Handmaid's Tale*, much later, in 1985. During this period, Hanks identifies a shift in the discourse on technology, where scholars were beginning to move away from a deterministic viewpoint. Vonnegut and Atwood, therefore, seem to fall

between two periods of science fiction *and* two periods of ideological attitudes. Hanks refers to the eighties as an “empirical turn,” in which philosophers began to claim “it makes no sense... to view technology as determining the content of the rest of culture” (3). To their credit, Hanks writes that these thinkers “present a more nuanced and complex picture,” because they defend the potential benefits of technological development *if* the social, environmental, and political ramifications are regularly analyzed. While the determinists’ logic claimed that technology *shapes* society, these thinkers argue that a more mutual co-creation exists between humans and technology. The empirical turn birthed a school of thought referred to as posthumanism in which the separation between humans and technology, theorized by the determinists, is challenged. This philosophy, Hanks writes, “is an attempt to understand how technology mediates experience” (3).

In other words, the determinists of the Cold War era focused on the impact technology could have on the individual/society, but the contemporary scholars prefer to look at these relationships from several angles, multi-directionally. This framework affords more power to the individual, helping to avoid the danger of pessimism-based inaction. To that effect, Hanks writes that technological determinism breeds technological pessimism, the concept that, “while we must respond to the problems raised by modern technology, there is no possibility of directing technological development” (4). In contrast to this powerless framework, the newer theories take on a more materialist, posthumanist perspective, allowing room for human action in the creation, response to, and management of technology.

Scholars writing after the empirical turn such as Donna Haraway, David Wills, and Andy Clark attempt to break down human and technology binaries. They demystify technology, arguing that our creation, use, and reliance upon technology are exactly what

make us distinctly human. In *Dorsality*, Wills eschews the notion that technological development is out of our power to control (11). Setting up this claim, Wills examines the intrinsic nature of technology in the human. He centers his theory on anthropology, explaining that the Australopithecus genus of early humans gained its ability to use tools through its shift into an upright stance. The release of pressure previously resting on the brain allowed for the brain to develop further. After this development of the brain, Australopithecus began fashioning primitive technology to facilitate survival. A bodily change thus turned the Australopithecus technological. Wills cites the work of anthropologist André Leroi-Gourhan, writing “he refers to the concept of tools as ‘a secretion of the anthropoid’s body and brain’ such that ‘the Australanthropians...seem to have possessed their tools in much the same way as an animal has claws’” (8). Leroi-Gourhan suggests that tools are a natural extension of the human, “‘literally incorporated in the living organism’” (Wills 8). Technology, from this perspective, exists *within* the individual naturally.

Within Wills disruption of technology/human binaries is a system of ethics that Wills appropriately calls “speculative thinking,” through which, we negotiate the progress of technology and its human origins in order to regularly keep developments in check. *Dorsality* serves as a call to arms, advocating for a critical exploration of technological developments. We can read Atwood’s and Vonnegut’s adherence to the term speculative fiction as an example and performance of the thinking Wills calls for.

Andy Clark’s *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence* (2003) proposes a similar argument. Examining a more contemporary human, Clark refers to our species as “human-technology symbionts: thinking and reasoning systems whose minds and selves are spread across biological brain and nonbiological circuitry” (3).

Though Clark maintains a distinction between biology and technology, he argues that the creation of and reliance upon technology is natural. He writes, "what is special about human brains, and what best explains the distinctive features of human intelligence, is precisely their ability to enter into deep and complex relationships with non biological constructs, props, and aids" (5). While humans, he says, are adept at recognizing patterns, our reliance on modern technology stems from our ineptitude at "complex planning and long, intricate, derivations of consequences" (5). In an advanced society, our biology necessitates an interaction with technology to supplement the brain and body's inadequacies.

Dispelling some of the technological determinists' fear that technology alters the individual, as we have seen in Golden Age SF depictions of the human, Clark writes, "the very things that sometimes seem most post-human, the deepest and most profound of our potential biotechnological mergers, will reflect nothing so much as their thoroughly human source" (6). Clark's and Wills's terms, such as biotechnological mergers and "turning technological," demonstrate more than just a shift in attitude. Their work reflects a greater interest in technology that mutates more traditional concepts of species purity. Rather than discussing weapon technology, the theorists of the empirical turn concern themselves with biotechnology, transgenics, and communication systems. This shift suggests a declining fear in nuclear apocalypse after the Cold War. However, their somewhat defensive tone implies that a societal trepidation exists surrounding the definition of the human in an era of gene-splicing, DNA mapping, and advanced wearable technologies. Atwood's work illustrates some of these fundamental differences in the technological developments of the era and the societal response to them. *Oryx and Crake* indeed focuses more on biotechnology and its impact on subjectivity than on weapon technology, a primary focus in *Cat's Cradle*. The

differences between Vonnegut's and Atwood's content reveal the changing fears of the modern era, defined by historical and technological moments. Their shared criticism of technocracy, however, speaks to the dangerous durability of this political, economic, and cultural system in a globalized world.

## Chapter Two: Scars of Techno-Apocalypse on the Environment and on Human and Non-Human Animals

Early on in *Cat's Cradle*, John transcribes a letter from Newt Hoenikker about the day the atomic bomb was dropped on Hiroshima. Newt's father, Dr. Felix Hoenikker was toying mindlessly with a piece of string. Dr. Hoenikker then played a childhood game where one laces the strings through their fingers, forming what is called a cat's cradle. Newt explains that his father got on the floor to show him, singing a song about a cat. Newt was frightened by his father's uncharacteristic attention to him and playfulness, and he ran out of the house screaming. This ludic moment connects *Cat's Cradle* with *Oryx and Crake*, for the society in the latter is dominated by game play. While Dr. Hoenikker's playful moment is atypical because he is usually so invested in his research, the scientists in the Compound play games all the time. Jimmy's father—a scientist and developer for one of the Compounds, OrganInc—invents a game called create-an-animal, where he and his team think of absurd animal combinations and then bring them to fruition. Both Dr. Hoenikker's and Jimmy's father's ludic behavior reveal threats to humanitarian ethics on systemic and individual levels. Dr. Hoenikker's joy during the death of thousands by his own invention demonstrates his apathy for the suffering of many. Jimmy's father's delight at manipulating animals—at creating them for the purpose of entertainment only to destroy them when the joke loses its luster—illustrates his lack of regard for the experience of animals or even a scientific respect for them as instruments of his research.

In both novels, the economic reality and cultural norms associated with technocracy sanction the apathy towards others illustrated here by the game play of corporate or state scientists. The technocracies in *Oryx and Crake* and *Cat's Cradle* are shaped by late-stage

capitalism. In this stage, the relationship between corporations and government privileges the wealth of the corporations over the welfare of the people (Godden 173). Policy makers are persuaded by the lobbyists working for corporations and deep-pocketed CEOs to make legislation that will maintain an ever-increasing production of goods while simultaneously curbing cost of production (Godden). This results in the exploitation of the labor force. The spread of these corporations across the McWorld extends this exploitation of labor and land into other countries (Godden 173). The neo-imperialism of late-stage capitalism expands the scope of damage that is caused by the production of the apocalypse-inducing technologies within the novels. Under the unchecked power of technocracy, the fatal impact of these technologies is unquestioned. In an interview Atwood explains the fear behind her speculative dystopia. She defends science as a whole but says, “the bad thing is making all science completely commercial, and with no watchdogs. That is when you have to get very nervous” (Macpherson 80).

This chapter will investigate how the ethical, biological, intellectual, and social standards of the human have been directed and defined by economic and political structures in *Cat’s Cradle* and *Oryx and Crake*. Value systems connected to a technocratic society within and without the United States—or in the case of *Oryx and Crake*, the Compound—prevent the “mad scientist” characters, Felix Hoenikker and Crake, from questioning the ethics of their inventions, and even foster their detached outlook. Capitalism values ever-increasing production, efficiency, and the highest potential profit (Godden). Under technocracy, the impetus to focus on the numbers is redoubled by society’s increasingly scientific discourse. The social value ascribed to empiricism and objectivity supersedes the importance of the individual. This kind of approach quantifies and codes subjectivity,

warping the ability of scientists, and the institutions enmeshed in the technocratic system, to see an individual's subjectivity and agency. The scientists in the novel are shaped by these structures and discourses and ultimately fail to act towards others with empathy, ethics, or compassion. Vonnegut and Atwood thus ask the reader to consider from various angles what a human is, or, more importantly, what a human should or should not be. With that in mind, the structure of this chapter will explore the definition of the human including the subhuman and the inhuman as well as the relationship between the human, the super-human individual, and the non-human animal.

From the government's patronage in corporations (more specifically its hand in technology development) is born a technocratic state which not only affects the economic reality and working conditions of its populace but also shapes the culture as a whole. The speculative impulse behind Vonnegut's and Atwood's work involves questions such as these: how would increased capital interest alter the practice of science? How would increased government control affect the direction of invention? How would a capitalist-science-centered society affect grand narratives and value systems? In *Cat's Cradle* and *Oryx and Crake*, we get the answer to all these questions, and they trend in the negative. These novels reveal how science is practiced in increasingly more cruel ways, scarring the bodies of human and non-human animals. They reveal scientists are pressured with force to fulfill the needs of the corporate-state, and how these scientific and capitalistic discourses ultimately create a destructive and largely dehumanized population.

In *Cat's Cradle* and *Oryx and Crake*, the ideals governing the practice of science—rationality, empiricism, objectivity—are taken too far by the scientists. Dr. Hoenikker's unawareness about the consequences of creating the atomic bomb can be seen when Newt

writes to John about his father: “[a]fter the thing went off, after it was a sure thing that America could wipe out a city with just one bomb, a scientist turned to Father and said, ‘Science has now known sin.’ And do you know what Father’s aid? He said, ‘What is sin?’” (17). Dr. Hoenikker’s sadly naive response to his coworker demonstrates his complete lack of moral code. He is so fascinated with experimentation and invention, with empirical data and with understanding how things *work*, that he has completely forgotten about how things *feel*. In *Kurt Vonnegut's Crusade, Or, How a Postmodern Harlequin Preached a New Kind of Humanism* (2012). Todd Davis writes: “Hoenikker represents Vonnegut’s greatest fears: a man who has a mind so brilliant that he can find the means to destroy the world, but who has no conception of right or wrong, of moral value” (63). Dr. Hoenikker is so wrapped up in the scientific process that he has lost his humanity. As such, when Dr. Hoenikker uncharacteristically plays with Newt, he comes across like a supervillain, singing an eerie song before carrying on some dastardly plan.

The logic of corporate-state science and late-stage capitalism privilege production and discovery over the welfare and wellness of the populace. Late-stage capitalism encourages great divisions of wealth among the United States and world population. In both novels, the vast majority of the populace, those not belonging to the privileged upper echelon of society, are left in squalor. The fatal mixing of late-stage capitalism and ethically ungrounded science leads into a technocratic system and the apocalyptic destruction of the environments in both texts. Before these apocalypses, and in the wake of their destruction, the consequences of a society centered on wealth are etched into the people’s very bodies. This fatal concoction, and the marks left on bodies as a result are two of the primary themes of focus in this chapter. Both texts proliferate with fractured bodies: disabled, genetically-altered, and abused bodies

of human and non-human animals, bodies rendered monstrous. Through these speculative works, Vonnegut and Atwood warn their readers about the ramifications of a society that stands on the pillars of state-corporate capitalism and technological development. In these technocracies, the relationship between the primary means of economic growth and the value systems of society ultimately hurts everyone. The result of such a relationship, apocalypse, kills even those who initially benefited from technocracy.

*Oryx and Crake*, which I earlier deemed a techno-allegory, represents Atwood's speculation of what could happen in the future if our society should continue following current social and economic trends. Given this speculative and allegorical framework, and Atwood's penchant for wordplay, details of her technocratic and heavily consumerist society can come across as far-fetched. The idea of Wolvogs or Pigoons, pig-like transgenic creatures that carry human organs for future transplant, may cause a chuckle in the reader. However, animals are already being used in such a manner, as chimp and pig hearts have been transplanted, unsuccessfully as of yet, into humans. The ban on firearms and the simultaneous armament of the Corp(se)corps with Sprayguns may come off a little Orwellian. However, Atwood bases these details off of a realities we face today such as the increased militarization of the police force.

As noted in Chapter One, technocracy was established mid-century, and this state investment in the technology industry was predicated on the "need" for protection and defense on the world stage. In *Fictions of Capital: The American Novel from James to Mailer* (2008), Richard Godden reveals that this investment had other motivations behind it apart from national security. Godden explains the economic motivations behind the government's increased interest in corporate welfare and the devaluation of labor which resulted from it. In

the calculus of capitalism, economic stability requires a constant and growing accumulation of wealth in the corporate sector (Godden 171). One of the first indicators of this necessity followed the Stock Market crash in the thirties. The crash led to massive layoffs across industries, but when the United States reached economic stability, job security was still under threat. Godden writes:

By far the most protean element in all this was the work force: hired, fired and re-hired, its flexibility evidenced the degree to which the welfare of labour was secondary to the welfare of its employer, which in turn was subject to the play of the competitive market. If corporate accumulation was to continue with an intensity sufficient to finance incessant product changes, then the market had to be regulated. In other words, unorganized corporate or monopoly capitalism (1900-35/40) had to become organized corporate capitalism or full Fordism (1940-74). (171)

The fluidity of the workforce was an apparent indicator of the unpredictable swings of the market. In the wake of the stock market crash, large business owners found this market instability unsettling. Titans of industry wanted a regular source of investment in order to alleviate the mercurial turns of the market.

Workers, too, were growing restless. As the disenfranchisement of the workforce threatened their job security, the seed of popular uprising presented the government with the question of whether to intervene in industry. The onset of World War II, however, allowed the government to avoid this decision, as a need for military technology channelled millions into industry thus stabilizing the market (Godden 171). After the war, growth continued and the workforce remained fairly contented until the 1960's when wage increases stagnated (Godden). In the late sixties, worker strikes hit a post-war record, and consumer purchases decreased. Uncertain about the strength of the market, "US corporations re-oriented towards the volatile high-profit sector of military production" (Godden 174). In other words, corporations shifted gears to manufacture technology of interest to the government, primarily

military technology, in order to secure constant and massive purchases. This is the moment in which these corporations turn their backs on the laboring consumers. From the corporate reliance on the state as primary purchaser, a permanent-arms-economy, also known as a defense economy, is born.

The impetus for the increased allocation of government funds into corporate production thus stems from a mix of political and economic motivations, not merely from the state's fear of war and desire to be properly prepared. Corporations did not have to worry as much about increasing wages to promote consumer spending when they had a huge consumer in the government. Regarding the extent of the government's spending and role in technological development, Godden reminds us that technologies like the electronic digital computer and miniaturized circuits—which lead to the development of the microcomputer—were developed for ballistic calculations and used in proximity fuses for bombs. As such, the government funded a large portion of the billion-dollar cost of development, spread across a third of the electronics industry (Godden 176). Corporations were essentially raking in taxpayer dollars, but ordinary workers' paychecks were not seeing much of this growth.

In this moment, politicians attempted to validate and justify the shift to a defense economy. The government promised that their increase in corporate spending would protect freedom, be it on an ideological level or in the economic sense of free-trade on a global scale (Godden 174). Behind these buzzwords and social myths were multitudinous contradictions. In a rhetorical move many are familiar with today, the government increased their investment in corporations and increased corporate tax cuts, while 'advocating' for global cooperation and the welfare of the worker. Godden draws out these inconsistencies, writing "[t]he corporatists must therefore talk greater labour participation while tightening labour's belt;

offer democratic teamwork while centralizing the state, advocate widening trade while re-militarizing the economy” (174). In describing this historical moment, Godden switches his terms from state to corporate-state, indicating the extent to which the two are bound.

In *Cat's Cradle*, Vonnegut captures precisely this political and economic moment. He displays his knowledge of the underlying economic motivations of the technocratic state's defense economy. Vonnegut casts light on corporate greed and their apathy toward their workforce. As John flies to San Lorenzo, he meets a wealthy bicycle manufacturer named H Lowe Crosby who intends to set up shop in San Lorenzo. Through this character's rant about his employees, Vonnegut cuttingly satirizes the American businessman:

‘Christ, back in Chicago, we don't make bicycles anymore. It's all human relations now. The eggheads sit around trying to figure out new ways for everyone to be happy. Nobody can get fired; no matter what; and if somebody does accidentally make a bicycle, the union accuses us of cruel and inhuman practices and the government confiscates the bicycle for back taxes and gives it to a blind man in Afghanistan.’ (89)

His disdain for “egghead” academics, those fighting for worker rights, demonstrates his disdain for such movements. The small amount of aid, such as union membership, given to already exploited workers is still too much for Crosby. While comic in nature, Crosby's diatribe has serious implications, as it speaks to the lack of regard this businessman has for its workers as well as his lack of empathy for the suffering of people in lesser developed countries. However, the line, “if somebody does accidentally make a bicycle” serves as a criticism for the type of business normalized in a technocratic world—businesses that do not need to sell products to consumers in order to get by, relying instead on funding from the government, their true client.

When John asks Crosby if he thinks the employees will be better in San Lorenzo, Crosby replies, “I know damn well they will be. The people down there are poor enough and

scared enough and ignorant enough to have some common sense” (Vonnegut 89). As if the American economy was not exploitative enough, Crosby goes to San Lorenzo to find an even less regulated workforce. The irony here that common sense requires ignorance makes Crosby’s character appear all the more ludicrous. However it darkly reveals the breadth of the immorality of American business, as it relies on stereotypes about the global other as well on their lack of upward mobility. Moreover, it shows how the American economy in this post-war world knows no limits of exploitation. Even San Lorenzo, a remote and nearly uninhabitable island, cannot escape the American businessman’s reach for cheaper and more desperate labor.

Indeed late-stage capitalism and the technocracy it births necessitates a global reach. The US control of the International Monetary Fund is a symbol of the US’s control of the global economy. This “becomes a license for neo-imperialism” (Godden 173). In this business-driven neo-imperialism, businesses take natural resources from lesser developed countries, and they exploit the inhabitants of these countries for cheap labor. The insidious aspect of this practice lies in the speeches of the corporate-state’s politicians. They reveal their complicity, or even, their support of neo-imperialism through their celebration of “the ‘free -world’ for ‘free capital investments’ and ‘free repatriation of profits’” (Godden 173). The result of this thinly veiled exploitation is a severe disparity in wealth. Vonnegut captures this disparity with the image of San Lorenzo’s only hotel. Its size and grandeur are made absurd when John learns that he and two of the Hoenikker children are the first and only occupants.

What was formerly the United States makes up most of the setting in *Oryx and Crake*, but the few references Atwood makes regarding the international world suggest that the

political economy organized on the Compound model has impacted developed and lesser-developed countries across the world. As the corporations have taken over the US government in *Oryx and Crake*, the Compound society represents the logical extreme of technocracy where the developers of technology have overpowered their state investors. The unchecked power of this full technocracy thus bleeds into countries across the globe. Happicuppa coffee, a Compound-born coffee corporation, invents a coffee bean that allows the whole crop to ripen simultaneously and can be harvested with machines. The huge plantations they set up required a relatively small workforce. Atwood writes, “[t]his threw the small growers out of business and reduced both them and their labourers to starvation-level poverty” (179). Happicuppa’s effect on the economy and their apathy for the welfare of small businesses and laborers incited a global resistance movement. Responses to this movement resulted in mass peasant killings by the army. The narrator clarifies, “or by the *armies, various armies*; a number of countries were involved” (179) [emphasis mine]. The juxtaposition between peasants and armies creates a sympathetic image which highlights the massive power imbalance between the leading global powers and the rest of the world. While citizens of various developed countries resisted the Compound-driven violence, it was ultimately futile. Corporate capitalism had spread too far—and was too entrenched in international politics—to be changed. To this effect Atwood writes, “[u]nion dockworkers in Australia, where they still had unions, refused to unload Happicuppa cargoes” (180). The narrator’s aside suggests that Australia’s unionized workforce was a rarity on the global market. Its geographical distance from the center of the corporate-state economy may be the only reason for its holding out. The state of unions in Atwood’s near-future opposes that of Vonnegut’s. While in Atwood’s, unions are nearly extinct, the unions in Vonnegut’s United

States are hegemonic. Looking at the two near-futures together, we see an escalation of technocratic power in Atwood's world which erases what little labor rights unions represented.

The global wealth disparities wrought by technocracy is revealed in greater detail through Crake and Jimmy's love interest, Oryx. She seems to have come from a Southeast Asian nation, though her fractured memory prevents her from identifying her land of origin. She remembers a village surrounded with trees and the neighboring fields. Jimmy guesses Myanmar, Vietnam, and Cambodia, and Oryx can neither reject or affirm his guesses. Oryx recalls her early childhood—before coming to the US—in developmental terms, calling it “the time without floors” (115). Floors are the central distinction for her because her early life centered around the “pounded-earth surface,” the ground within her dwelling place. Sweeping them daily was important; the narrator expounds, “[t]hey were used for sitting on while eating, and for sleeping on...Nobody wanted fleas” (115). The picture of poverty in these last two examples demonstrates how Atwood's world is rigidly separated according to the producers and consumers. As the producers of food and raw material—rice and coffee in these examples—these people are not given the opportunity to take part in the wealth centered heavily in the technocratic Compound of the former United States.

The economy of the Compound—and of modern day US—is however deeply reliant on people like Oryx, for both materials and labor. At a young age, Oryx is purchased by a pleebland pimp to work as a child servant and sex slave (Atwood 131). Unable to benefit from the economy of the Compound, the pleebland economy is built upon this sort of illegal trade. Oryx refers to the man that purchases her affectionately as the “gold-wristwatch man” (118). In Oryx's community, he is seen in terms of his wealth rather than as the man that

takes their children away. Atwood writes, “[h]e was the villagers’ bank, their insurance policy” (118). However, after the initial purchase, he never fulfills his promise of sending a percentage of profits back to the community. The gold-wristwatch man is the picture of the black market side of neo-imperialism, manipulating an impoverished people and enslaving the young members of their community for his own profit. Oryx cannot remember where she lived before being sold, brought to various places, and eventually ending up United States—a testament to the nature of neo-imperialism, which erases landscapes, cultures, entire places.

While watching the Happicuppa resistance movement unfold on television, Crake expresses that he would like to kill all the Compound army men. Jimmy reads this as Crake’s sympathy for the exploited workers. This surprises Jimmy because Crake, like most of Compound society, appears indifferent to the welfare of others, particularly laborers. However, Jimmy’s above-average sympathy for others produces a misreading of Crake’s anger. Crake responds that he does not want to kill the army men because they are killing peasants but because they are defending a company that is “nuking the cloud forests to plant this stuff” (179). Here, and in countless other examples, Atwood draws attention to the negative environmental impact of this technocratic corporate-state capitalism. This system leaves its trace around the world, leaving behind abused bodies—such as Oryx’s— and scarred land. In this instance Crake reveals the seed of his ectopian vision, which privileges the health of the environment over the health of its human inhabitants. This ectopian vision proves fatal when his concern for the environment prompts him to wipe out all of humanity. Crake’s concern for the environment and Jimmy’s concern for people and animals marks them as outliers to Compound culture, though in varying degrees. In Compound culture, the

empathetic nature of the human, an innate quality of this social species, is reduced to the point that people are unmoved by violence and environmental destruction.

The world in *Oryx and Crake* is already seeing the environmental damage caused by over-production and consumption. For example, in the time of Oryx's childhood—roughly fifteen years before the apocalypse—her community requires more visits from the gold wristwatch man: “he had been needed more and more often, because the weather had become so strange and could no longer be predicted—too much rain or not enough, too much wind, too much heat—and the crops were suffering” (118). The damage to the environment has become so immense that it has triggered the symptoms of global climate change predicted by scientists today. This is one of the many explicit connections in Atwood's work between conditions of today and this near-future world. The changing environment directly causes Oryx's people greater struggle to survive, forcing them to sell more of their children. The technocratic capitalism of the Compound not only leaves producers in squalor and the environment in duress, it worsens conditions for the lesser developed world which makes them even easier to take advantage of. The technocratic system is so unfairly weighted that even environmental change disproportionately affects the producers rather than the consumers.

The separation of wealth not only exists on an international scale but on local scales as well. Those who work for the reigning corporations, such as OrganInc, HelthWyzer, and RejoovEsense, live within the walled-in Compound. For example, Jimmy, lives within the Compound in a Cape Cod-style house. These luxurious communities—filled with scientists, businessmen, marketing strategists and the like— promise gym and spa memberships, excellent schools, global cuisine, and, most importantly safety from the city. Referred to as

the pleeblands, the city, which houses everyone else, is characterized by its poverty and its entropy, its “endless dingy-looking streets,” filled with people “hurrying, cheering, rioting,” and “the addicts, the muggers, the paupers, the crazies” (27). These epithets exemplify how Compound culture reduces humans to objects and overwrites human empathy. The narrator adds, “[s]o it was best for everyone at OrganInc Farms to live all in one place, with foolproof procedures” (27). Framed in this light, the Compound justifies walling in its pleasure-bubble and enforcing strict bans on travel between the two worlds. The attitude of the Compound reflects the justification for a permanent-arms economy noted earlier in the chapter. It represents a hyper-localized continuation of this kind of logic. Atwood’s world has such extreme economic disparities that it far surpasses the already serious wealth inequality in America today where the richest 1% of the population owns over a third of its wealth.

While the technocracy within *Cat’s Cradle* has not created a level of stratification necessitating physical boundaries between the rich and poor, Vonnegut illustrates the drastic differences between the beneficiaries of technocracy and those who are left out. As noted in the introduction, Atwood compares Jimmy’s house to Cape Cod in order to illustrate his family’s wealth. Similarly, Vonnegut uses Cape Cod to demonstrate Dr. Hoenikker’s wealth and its relation to technocracy. The most visible element of technocracy in the novel is the government’s funding of General Forge and Foundry research lab in Illium, which primarily produces military technology. However, it also affects the economic and social rank of individuals. For Dr. Hoenikker’s work in the creation of the atomic bomb, he receives the Nobel Prize which affords him a house on Cape Cod, a destination almost exclusively for the wealthy and well-to-do. An ancillary character refers to this luxury as “dynamite money” (65), explaining that the prize’s namesake, Alfred Nobel, came to fame

for inventing dynamite. Outside the realm of the text, this is actually true. This brief ironic moment demonstrates the importance of destructive technologies in international politics by showing that the founder of the Nobel prize and our protagonist, the receiver of the Nobel prize, both invented them. The cyclical structure created by this repetition suggests that the confluence of weapon creation and sociopolitical power is a permanent and continuing feature of society. It reveals the economic impetus, and the resulting social validation, for the invention of weapons—Nobel will forever be immortalized through the prestigious awards given in his name.

Cape Cod emerges again as a theme of economic stratification when John, on a research trip for his Hiroshima book, stops in at the Del Prado hotel. The narrator informs us, “[i]ts bar, the Cape Cod room, was a hangout for whores” (20). This ironic gesture juxtaposes the setting of Dr. Hoenikker’s luxurious life with the reality of those who do not directly benefit from a technocratic, corporate-state, defense economy. The hotel bar is the opposite of the real Cape Cod, as the women frequenting the establishment must sell their very bodies for money in order to get by, whereas those living on Cape Cod have enough money to afford multiple houses. The two instances of Cape Cod in *Cat’s Cradle* symbolize the economic division of the United States in the world of the novel. The characters in the novel are either direct beneficiaries of the corporate-state or are nearly destitute. Vonnegut’s portrait omits the representation of middle-class Americans, drawing attention to the great injustices of state-sanctioned corporate greed.

The defense economy, fueled by the development of military technology, is a central theme in *Cat’s Cradle*. The novel is bookended with examples of military technology, opening with John’s desire to write a book about the atomic bomb and closing with the tragic

spilling of *ice-nine*. The General Forge and Foundry Company is described as “heavily guarded” with military personnel making rounds in the laboratory. Vonnegut shows his skill for irony when John interviews the lab’s overseer, Dr. Breed, who repeatedly insists the experiments going on are guided by “pure research” (42). However, the oppressive presence of the military, along with Dr. Breed’s admittance that the military did make requests to Dr. Hoenikker, makes the purity of General Forge’s research laughable. Vonnegut contrasts Dr. Breed’s vehement denial with the testimony of one of General Forge’s employees, whom John meets in a bar after his visit to the company. “Another guy came in,” John narrates, “and he said he was quitting his job at the Research Laboratory; said anything a scientist worked on was sure to wind up as a weapon, one way or another. Said he didnt want to help politicians with their fugging wars anymore” (26). This employee turns out to be Dr. Breed’s son, and his testament further evidences the government’s close involvement with business and the centrality of weapon production in scientific inquiry.

As we have seen, the very logic of the corporate-state economy results in the reduction of people into labor that can easily be fired and rehired, bought and sold. It fosters the physical separation of people into zones of luxury and squalor as well as the destruction of the environment. The relationship between corporations and government that results is all the more dangerous when the primary interest in production surrounds military technology.

Vonnegut draws on the violent ramifications of technocracy when he includes a line about General Forge’s location. Trying to sell John on Illium’s rich history, Dr. Breed says, “[j]ust about where the Research Laboratory is now was the old stockade. That was where they held the public hangings, too, for the whole county” (28). By linking General Forge with the violence of capital punishment indexed by the stockade, Vonnegut suggests that this

center for state-funded weapon development is the next iteration of state-sponsored violence. Only, this new iteration has global rather than province-wide consequences and boasts a much higher victim count.

Vonnegut not only criticizes the state's funding of research and development but the very nature of scientific inquiry in the sixties. He seems to suggest that the ideals governing science and the constitutive elements of humanity, morality, and empathy have an inverse relationship. This relationship becomes all the more apparent when "Papa" Monzano's doctor, Dr. Von Koenigswald— "a humanitarian with the terrible deficit of Auschwitz in his kindness account"— tells John "I am a very bad scientist. I will do anything to make a human being feel better, even if it's unscientific" (219). In Koenigswald's conception, human empathy and humanitarian goals are the antithesis of scientific practice. Vonnegut's here castigates scientists of this new technocratic world for failing to consider the well-being of people by privileging the tenets of science and the value of discovery over the welfare of individuals.

Crake, like Dr. Hoenikker, is apathetic to the well-being of people. However, while Hoenikker is characterized as unfazed by his surroundings because he is so distracted by scientific inquiry and indoctrinated by its ethos, Crake's disregard for the welfare of people is rooted in his antipathy for humans. He criticizes their ego-centric desire to dominate over nature, animals, and each other. Consider the Blysspluss pill, the project Crake uses to disseminate his apocalyptic virus. When Crake explains the concept of the Blysspluss pill to Jimmy, he situates human suffering in the desire to dominate and the hierarchical structures that are created and enforced as a result (294-296). In "Eco-Dystopia Reproduction and Destruction in Margaret Atwood's *Oryx and Crake*," Allison Dunlap argues that Crake thus

rewires the process of human sexual reproduction through the Crakers in order to curb the destruction that Crake blames on human sexuality. Dunlap writes “[b]y re-engineering human beings such that their reproductive habits mimic those of animals, Crake creates a group of humanimals who defy animal/human, nature/culture binary oppositions” (3). Crake destroys human society not out of Hoenikkerian obliviousness but out of extreme utopic vision. The inhumanity of the Compound people motivates Crake’s derranged humanitarianism, but this results in the most inhumane act of the novel, the mass murder of billions of people.

Crake takes the fate of the human race and the world upon himself. He, like the scientists of both novels, fosters a desire for control. Indeed, his private lab where he creates the Crakers is called the Paradise dome, a spelling reminiscent of a pair of dice. Once again, game play emerges as a theme in the novel. The double meaning of Paradise, with its reference to the Christian concept of Heaven, suggests that game play, in this example, serves as a means of control. If the Paradise dome is Heaven, Crake clearly sees himself as God, creator and controller of the universe. Thus, the biblical reference enhances our understanding of Crake’s use of game play within his scientific experiments to manipulate both his subjects and the greater population of the world.

While games can function to put people in cooperation with one another or to form bonds through play, they operate here as a means through which Crake may compete against the Compound’s control and set up the board, so to speak, for the future humanoids. The same dual function of game play can be applied to scientific inquiry, and the comparison operates as a means for Atwood to criticize the practice of science in a technocratic world. Now so distorted by motivations for profit, scientific research becomes highly individualized,

and cooperation amongst scientists is not often encouraged. Crake's sole control over the Paradise dome and the image of armed guards outside of General Forge and Foundry Company reinforce the isolation—rather than cooperation—of scientists as they compete to produce the most profitable technologies. This competition amongst scientists and corporations alike in *Oryx and Crake* has tragic results. The Compound corporations often sabotage other corporate players by kidnapping or murdering their best game pieces.

The biblical connection between Crake's lab and heaven also gestures towards Crake's utopic vision. He truly believes the creation of the Crakers will make the world into a paradise. Crake wishes to recreate a garden of Eden, where the environment will eventually heal from human destruction and where sinless Crakers will live in harmony with it and with each other. Herein lies the contradiction in Crake's logic, though Crake suggests that he can see past the "faulty wiring" that makes humans have such a penchant for destruction, his desire to create and control the future of the world is reflective of the Western impetus for domination he so eschews. Though Crake kills himself along with the other humans, his assumption that he has the answers to the world's problems smacks of egocentrism. Though he derides religion for adhering to an unproven master narrative, he creates his own master narrative through his Craker plan. In this regard, Dunlap writes, "at the heart of *Oryx and Crake* is a tension between capitalist science's tendency to minimize human/animal differences and its simultaneous insistence upon maintaining human exceptionalism" (2). Though seeing himself as above the human nature and the capitalist machinery which render society in *Oryx and Crake* so violent, Crake is oblivious to the elements of the Western man's ethos which shape his plan.

Crake's own self-conception and the Compound's recognition of his highly advanced intelligence, makes Crake a super-human individual. However, his incredible intelligence, when warped by the logic of capitalist science, allows him to murder billions of people. Though he tries to destroy capitalism paradoxically through his position of power, he is not immune to the Compound's social narratives. As the logic of capitalist science functions as a force that determines the value systems of the Compound culture and reinforces human exceptionalism, it also takes on a super-human quality. It seeks to constantly advance the parameters of the human through biotechnological innovation while simultaneously determining, like Crake does with his Crakers, the behavior of humans in the Compound.

Vonnegut's critique of inhumane behaviors also moves beyond that within the scientific community, illustrating how the cold objectivity of the scientific world is shared by, or rather, has leached into, other realms of society. Of Dr. Hoenikker, a character remarks, "[s]ometimes I wonder if he wasn't born dead. I never met a man who was less interested in the living." She then adds, "that's the trouble with the world: too many people in high places who are stone-cold-dead" (68). This character's remarks extends the coldness characterizing Dr. Hoenikker onto the political and economic elite. In *Kurt Vonnegut: A Literary Reference to His Life and Work* (2008), Susan Farrell comments, "[i]t is fitting then that the 'stone-cold' Felix Hoenikker develops the doomsday device that will eventually reduce the whole world to ice and the human beings who ingest it to stone" (86). Farrell's comment, framed mostly as a comic aside, speaks to an integral issue in the worlds of *Cat's Cradle* and *Oryx and Crake*. The very principles which make the scientist characters so inhumane spread to the rest of the population as capitalist interest in science increases its social value. Just like *ice-nine* came into contact with the world, and at lightning speed

turned everything to stone, the cold scientific outlook of the scientists in both novels render the technocratic subjects detached from other people and their surroundings. It is, so to speak, a cultural ice. Their lack of empathy and disregard for consequences is then compounded by the values of capitalism satirically and allegorically represented by Crosby, “Papa” Monzano, and the higher ups at RejoovEsense and Atwood’s other tech corporations.

Danette Dimarco further elucidates the dangerous impact of late-stage capitalism in the production of goods and technologies and the concept of productivity. She writes:

In other words, in modernity productivity becomes more than the mere output of objects or tools derived from natural resources to ease the toil involved in life. The instrumentalism once integral to producing good citizens and committed to the ideals of technological innovation evolved into a form of production that eschewed outward-looking objectives (like community building...) for inward looking ones. Under capitalism, then...the desire for making becomes further complicated by the desire to accumulate wealth. (174)

This desire to be productive—to accumulate wealth—impacts the modes of scientific inquiry and technological development. The competitive researchers in *Oryx and Crake* are willing to test on and “play” with animals in a way that makes animal testing today look tame. The increasing rapidity of r&d, outlined in Chapter One, is therefore driven by the fact that the creation of more products will lead to a greater accumulation of wealth, be it from the state or directly from consumers. This desire to accumulate wealth, and this lack of a community-oriented approach, facilitates the creation of destructive technologies. Before creating the atomic bomb, Dr. Hoenikker was more fascinated by turtles than by nuclear fission. Only under the pressure of General Forge—motivated by economic gain and the military’s oppressive presence—does Dr. Hoenikker create the atomic bomb.

The shifting motivation for r&d generates attitudes that threaten individual well being, the health of communities, and the state of the environment. When productivity

becomes synonymous with monetary gain, and monetary gain becomes most associated with technological development, social attitudes shift. Those working in Science, Technology, Engineering, and Math (STEM) fields—by society’s definition, those who are productive—are valued more than those outside of it (Newfield). This is a crucial social element of a technocratic state.

In *Oryx and Crake*, the wall separating the Compound kids from the pleeblands demonstrates the societal privileging of scientists and business moguls. However, the separation of people even within the privileged elite speaks to the extent of the technocratic value system operating in Atwood’s world. Jimmy, known for his witty turn of phrase, always preferred books and language to science and math. His preference narrows his opportunities for higher education, and he ends up at the Martha Graham Academy, a former liberal-arts school that is dusty, dilapidated, and furnished with out-of-date materials. Its position on the outskirts of the Compound, dangerously close to the pleeblands, reveals the little value Compound society holds in non-quantitative education. Martha Graham Academy responds to its diminished reputation by equivocating, changing its motto from “Ars Longa Vita Brevis” to “Our Students Graduate With Employable Skills” (188). The defensive tone in the motto change illustrates the implied connection between STEM fields and productivity and the university’s pitiful attempt to appeal to the ethos of productivity that Dimarco foregrounds. The school is not only located on the periphery of the Compound, its ethos is also located on the periphery of the humanities, incorporating the attitude of those outside of the humanities into the structure of the program. Atwood presents a humanist critique in her allegory by showing the alienating impacts of devaluing art. Bodies are separated, even within the Compound, based on value systems motivated by profit.

The increased appeal to ‘productivity’ and ‘employable skills’ at the behest of the techno-corporations reveals that the conflation of STEM and productivity. The subsequent inflation of the value of STEM and repositioning of humanities study indicates once more that Atwood’s humorous content reflects the current social and economic moment. Including this description of an art school’s fall, Atwood draws on predictions about the value systems tethered to a technocratic society as well as the reality of education today.

In “The Humanities as Service Departments: Facing the Budget Logic,” educator Christopher Newfield details his findings regarding the treatment of humanities departments as opposed to STEM departments. He writes, “[s]ince I began to study university budgets through an academic senate position fifteen years ago, cross-disciplinary inequalities have worsened, but I have in general not found faculty members to be much more interested in addressing them” (Newfield). Martha Graham represents what may happen to humanities departments and liberal arts schools if the funds allocated towards them continue to dwindle. Martha Graham’s motto eerily echoes Newfield’s findings: “[m]y approach here reflects my reluctant conclusion that most faculty members outside the humanities would accept this conversion of the humanities into a domain that teaches a range of basic skills.” In both cases, the only value of humanities is its ability to be transmuted into instrumental humanities which will be usable in the workforce and that will generate profit. The intrinsic beauty of art, its potential for engendering empathy, fostering creativity, and reproducing individual subjectivity is ignored. The enjoyment of art is a definitive aspect of the human experience. However, a culture built on the tenets of capitalist science casts this experience aside as unnecessary. Because these systems shape the individuals within them, this devaluation of art erases human qualities, rewriting the definition of what it is to be human. I

produce profit, therefore I am. While technocracy on a global scale reduces the agency of the global other, the value system associated with the localized technocracy of the Compound limits creative agency by separating bodies into zones of wealth and poverty.

Inversely, Crake enjoys the immense privilege of his advanced skill in science and math. He attends one of the Compound's most prestigious universities, the Watson-Crick Institute. When Jimmy visits Crake there he is astounded at the fact that Crake is allowed real butter. Crake responds, boasting, "'[n]othing but the best at Watson-Crick'" (223). Indeed this is a treat, as the consumption of animal products has reached an untenable limit, necessitating a boom in the production of lab-grown meat, genetically-altered animals for consumption, and soy products. Jimmy raves at the fact that Watson-Crick serves, "real shrimps instead of the CurstaeSoy...at Martha Graham" (208). However Crake's privilege goes beyond his ability to eat food which has never seen a lab. Watson-Crick allows students to earn royalties for whatever they may invent while attending school, providing students an economic leg-up as well as a breadth of future employment opportunities.

Crake later takes a job at one of the Compound's most elite corporations RejoovEsense. Here corporate scientists research and develop products that make people look younger, more beautiful, and happier. They offer cryogenics for the promise of immortal life as well as high-end, exotic transgenic meats like the "kamga-lamb, a new Australian splice that combined the placid character and highprotein yield of the sheep with the kangaroo's resistance to disease" (292). Crake is brought on to head the company's most profitable potential project, a project to replace cryogenics and offer immortality in a completely new way—the BlyssPluss pill.

The concept of the BlyssPlus pill was to make people happy enough to eliminate “the external causes of death” (273). Crake paradoxically cites sex as the primary factor in these external causes, which he enumerates to Jimmy: “[w]ar, which is to say misplaced sexual energy...Contagious diseases, especially sexually transmitted ones. Overpopulation” (273). Therefore Crake locates “the external causes of death” in subhuman drives. BlyssPlus protects the user from all STDs, as well as “provide an unlimited libido...coupled with a generalized sense of energy and well-being, thus reducing the frustration and blocked testosterone that lead to jealousy and violence” (294). The unparalleled rewards RejoovEsense gives to Crake for this invention and the pill’s extreme marketability reiterates how the logic of capitalist science is driven by the impulse to push the human into the realm of the super-human.

As opposed to the General Forge lab, which is primarily motivated to invent echnology to facilitate war, the RejoovEsense lab seeks to produce products to elongate life (that is, for the small and vastly wealthy consumer base that can afford it). The key distinction between Vonnegut’s and Atwood’s weapons of choice reflect the economic, scientific, and cultural shifts taking place between the 1960’s and the present. *Oryx and Crake* includes details about weapon technology in Compound society, but it is not as central as it is in *Cat’s Cradle*. For instance, the narrator describes Watson-Crick’s mascot, “the spoat/gider—one of the first successful splices...goat crossed with spider to produce high-tensile spider silk filaments in the milk. The main application nowadays was bullet proof vests” (199). The fact that this invention was immortalized in a statue outside one of the most prestigious schools shows that the production of military technology is still an important

endeavor, but it has been overshadowed by the production of more Huxleyan consumer technologies.

Because the Cold War ended about fifteen years before Atwood wrote *Oryx and Crake*, the fear of annihilation via widely destruction weapon technology had decreased. The development of consumerism from the sixties to the millenium also informs Atwood's critique. Therefore, she chooses a pill encompassing the desires of the modern consumer as the vehicle of apocalypse to show that desire may be just as fatal as destruction.

Though the fear of nuclear devastation had faded, fear of new biotechnologies, alien to the public, is established after the Cold War. It is this new wave of scientific practice, and the fear associated with it, that steers the plot of Atwood's novel. Atwood adopts the concerns expressed in a post-*Cat's Cradle* wave of scholarship underscored in my first chapter, posthumanism. Author of *The Cambridge Introduction to Literature and the Environment* (2011), Timothy Clark writes that posthumanists challenge the tenets of transhumanism, the "technologically inspired narratives about humanity transcending itself" (63). It is as if Atwood took the description of transhumanism and transposed it into her characters. The ideologies of transhumanism inflect the drive within the Compound to make increasingly super humans and consistently promote human exceptionalism. Clark outlines the dangerous implications of this narrative:

the hype sometimes produced by biotechnology companies and their supporters merely continues the modern age assumption that humanity should oversee, control and mould nature to its own ends. Able to manipulate and produce more and more of their own biology, human beings may, it is claimed, acquire almost limitless power, as with a brain supplemented by an embedded microchip, bionic limbs and so on, defeating natural finitidue and perhaps even attaining immortality. Such rhetoric intensifies rather than questions inherited mind-body and culture-nature dualisms. In this way new technologies have all too often fed outmoded types of humanism, exalting the human as essentially mind, reason, or some other essence. (64)

In Crake's celebration of the superhuman potential within the Blysspluss pill, he parrots the rhetoric of the biotechnology companies summarized by Clark. RejoovEsense and all the other Compound biotech corporations are all competing to make the consumer more 'superior' be it through elongated life, beautification (by societal standards), or prolonged youth. The technologies created to make super-humans foster the maintenance of human exceptionalism, making nature—animals and the environment—the otherized object to dominate.

Crake utilizes his high position in the technocratic system to carry out his own domination plan. He boasts about the amount of money his job at RejoovEsense affords him, telling Jimmy ““think of the R&D budget...mega millions”” (293). Crake's economic standing and prestige within the Compound enables him the resources and freedom to spread the virus that kills off most of the world's population. He uses Oryx to distribute the pill as part of a marketing campaign for BlyssPluss. Therefore, the consumer's susceptibility to marketing strategies in Atwood's technocratic world also factors in its demise. The technocratic system of the Compound endows Crake with the power to enact his game-like manipulation of others. Because of Crake's prestigious job, no one watches over his project or even inquires about it. This allows him to secretly incorporate the virus into BlyssPlus as well as invent the Crakers.

Crake's high placement amongst the technocratic elite also affords him more mobility. He travels freely and frequently between the Compound and the pleeblands, something not done by most Compound inhabitants due to the Compound's extensive security. Outside Jimmy's childhood home was “tight security,” where, “the guards were ruder, they were suspicious of everyone, they liked to strip search people, women especially”

(29). With restricted ability to travel freely, Jimmy's mother "felt like a prisoner"

(29). Therefore Crake's mobility demonstrates his higher status. Atwood explicitly connects economic status with freedom, writing, "You practically had to let [security] climb into your underpants before they'd let you fly anywhere in a hired copter, unless you were some graft-ridden prince from a Compound, that is" (Atwood 145). The trust and freedom arbitrarily given to Crake based on his place at Rejoovenesse, and the wealth it provides, illustrates the significant role that corporate science plays in Atwood's technocratic society. In this technocratic society, bodies are not just separated by economic status, they are also stripped, invaded, abused, and their movement is both surveyed and limited.

As a beneficiary of the technocratic system, Frank Hoenikker, like Crake, is allowed a freedom of movement that ultimately contributes to the destruction of the world. Had he not brought ice-nine to San Lorenzo, the tragic spill would not have occurred. Monzano, near-death, chooses to die by ingesting *ice-nine*. As Frank, Angela, Newt, and John attempt to clean up the mess, a plane crashes into Monzano's castle sending him and the *ice-nine* into the sea. The technocracy in *Cat's Cradle* enables Frank Hoenikker's economic privilege and freedom of movement. Frank uses his possession of ice-nine to sail to San Lorenzo and get a job that provides a lifestyle well above those of the San Lorenzens, who John describes as the "miserable folk of another race" (Vonnegut 83). Frank's ownership of *ice-nine* is as absurd as the Compound corporations ownership of the rights to technology. In both examples, the access to technology, and the wealth it provides, is arbitrarily given to a small faction of people—through birthright—and denied from the rest. Crake and Frank are both born with the chrome spoon of technocracy in their mouths. Indeed, the narrator refers to Frank's ship as "the pleasure craft," (Vonnegut 83) highlighting the privilege inherent in his very mode of

travel. Frank receives the ludicrous title “Major General Franklin Hoenikker, Minister of Science and Progress in the Republic of San Lorenzo” (Vonnegut 79). The three titles in Frank’s position comically points to the absurdity of his power in comparison with the disenfranchised and impoverished San Lorenzens. “Papa” Monzano identifies the reasoning behind this appointment, referring to Frank in an essay as “the *blood son* of Dr. Felix Hoenikker” (Vonnegut 81). Here technocracy is buttressed by nepotism, and after Frank meets Monzano and affirms his relation to Dr. Hoenikker, he says “since that moment, every door to opportunity has been open to me” (Vonnegut 83).

Frank’s enjoyment of his share of technocratic power cannot be explained away as simple naivete. He has displayed an impulse to control, like Crake and like Dr. Hoenikker, since he was a child. The day that Dr. Hoenikker’s bomb dropped on Hiroshima, Newt discovered Frank outside with a jar, a tablespoon, and some bugs: “[w]hat he was doing was spooning different kinds of bugs into the jar and making them fight...They won’t fight unless you keep shaking the jar. And that’s what Frank was doing, shaking, shaking the jar” (Vonnegut 14). While Frank’s abuse of bugs comes off as childlike play compared to Crake’s well-planned mass-murder, Frank defends his abuse using the terms of the scientific community. When Angela discovers him, he tells her he was experimenting. Newt writes in a letter to John, “[t]hat’s what Frank always used to say when people asked him what he thought he was doing. He always said ‘Experimenting’” (Vonnegut 14). At least in Frank’s mind, aspects of the scientific method justify cruelty. The confluence of a childlike game of insect battle and the language of scientific inquiry once again establishes a connection between game play and the scientific process. This connection sheds light on the irreverence with which these “scientists” view their subjects. Guided by the ethos of corporate science,

Felix, Frank, and Crake all exhibit a desire to control and all leave abused bodies in their wake.

The ethos of scientific discourse, which fosters this corporeal damage, extends its damaging impact to the environment, contributing to the environmental degradation apparent in both novels and resulting in apocalypse. The presence of apocalypses in Vonnegut's satirical and Atwood's allegorical novel make the novels ostensibly environmental texts which necessitate an ecocritical examination. The apocalypse trope exists across environmentally-concerned texts like John Christopher's *The World in Winter* (1962), Gregory Benford's *Timescape* (1980), and Cormac McCarthy's *The Road* (2006). *Cat's Cradle* fits the definition of the apocalypse trope of ecological criticism (Mentak 275). This is a trope used by environmentally-minded authors in which apocalypse is used as a tool which directs the reader to probe the elements of culture that endanger the environment, in other words, a literary experiment. The apocalypse is the result, and the reader must identify the cause. Indeed, ecocritical authors and theorists probe the relationship between culture and nature, repurposing Martin Heidegger's concept of being-in-the-world within the concept of ecological thinking. Heidegger's concept defines the human as one who is fixed and enmeshed in the physical world. The practice of ecological thinking adopts this premise, advocating for a consideration of the physical world, its current state, and the relationship between humans and this world. Vonnegut practices this ecological thinking by examining closely the role of culture on the environment. By placing the apocalypse in the hands of Frank Hoenikker—son of the “stone cold dead” state-scientist and apprentice to Monzano, a caricature of capitalist ideals—Vonnegut calls attention to the fatal cultural marriage of 1960's capitalism and irresponsible science.

Atwood's brand of environmentalism has been shaped by a feminist movement in the 1980's that applied the critical lenses of feminism onto environmental issues and debates. Well practiced in challenging male/female binaries, ecofeminists approach dualisms such as nature/culture, civilized/primitive, and God/man with a critical eye. Atwood troubles these distinctions through her exploration of what I have termed the human, subhuman, superhuman, and nonhuman. These terms apply to physical bodies as well as behaviors and drives in all animals. Considering the *corpus* in corporation, I will also apply these terms when describing corporate power. In the novel, Atwood celebrates the God's Gardeners, a counter-culture group that practices environmental activism, veganism, anti-materialism, waste-free living, and spiritualism. Their doctrine, revealed in *The Year of the Flood*, teaches the interconnectedness of all aspects of nature through open systems and overlapping ecosystems and communities. Their doctrine reflects the tenets of ecological thinking, which is an awareness of this interconnectedness that reinforces environmental stewardship.

Vonnegut also practices ecological thinking, as he recognizes the interconnectedness of all things in the world and attempts to consider a less anthropocentric worldview. When John goes to General Forge to interview Dr. Breed, he learns about the concept of *ice-nine*. The moment *ice-nine* touches water, it freezes all the water molecules in that body, and John starts to ask Dr. Breed about the possible ramifications of this reaction:

'If the streams flowing through the swamp froze as *ice nine*, what about the rivers

and lakes the stream fed?'

'They'd freeze. But there is no such thing as *ice nine*'

'And the oceans the frozen rivers fed?'

'They'd freeze of course,' he snapped. I suppose you're going to rush to market with a sensational story about *ice-nine* now. I tell you again, it does not exist!

'And the springs feeding the frozen lakes and streams, and all the water underground feeding the springs?'

‘They’d freeze, damn it!’ he cried. (Vonnegut 49)

John sees what Dr. Hoenikker could not be bothered to contemplate when he created *ice-nine*. Dr. Hoenikker cannot escape his own world of scientific inquiry; John, on the other hand, considers the interconnectivity of all the water in the world, even that which cannot be seen. John models ecological thinking because he considers how one action could trigger a chain reaction, impacting everything and everyone. His ecological vision contrasts sharply with Dr. Breed. Dr. Breed’s ecological blindness shows itself when he assumes John’s obsession with *ice-nine* stems from a desire for exhibitionist profit. Breed showcases his priorities by assuming John has the same. Breed’s narrow focus on scientific production and its result, monetary gain, overshadows any kind of environmental concern. Here Vonnegut showcases the culpability of irresponsible state-science and capitalism—these twin tumors of technocracy—in the destruction of the environment.

Ecological thinking not only considers the repercussions of human action upon environments but on the animals that inhabit them as well. Vonnegut’s and Atwood’s inclusion of animals in their novels draw attention to how these technocratic systems impact animals and animal bodies as well. Both Vonnegut’s and Atwood’s work forces the reader to acknowledge the agency of animals as well as to question the human/animal binary. I will look at the depiction of birds in each text to examine what, in particular, each critiques in the human-animal relationship.

Vonnegut’s oeuvre features human and non-human animals, aliens, and a multitude of machines, and none of these non-human characters act simply as accessories to the human characters. In fact, Vonnegut bookends his most well-known novel, *Slaughterhouse-Five* (1969), with the voice of a bird. Birds make cameo appearances throughout the novel. After

the firebombing of Dresden scene, Vonnegut writes, "[t]here was nothing going on out there, no traffic of any kind.... Birds were talking. One bird said to Billy Pilgrim, 'Poo-tee-weet?'" (*Slaughterhouse-Five* 215). This turns out to be an echo of what happens in *Cat's Cradle*. Moments before *ice-nine* spills, as Monzano's palace is crashing, John briefly contemplates taking his life by jumping down into the wreckage. He narrates, "I was recalled from this dream by the cry of a darting bird above me. It seemed to be asking me what had happened. 'Pootee-phweet?' it asked" (Vonnegut 259). The animals in these texts respond to and take part in the unfolding narrative; Vonnegut thus dramatizes the interconnectivity that ecocritics so often seek to point out. Their presence reveals Vonnegut's attempts to move away from an anthropocentric world view.

Moreover, Vonnegut's birds hold a specific function in a literary trend. In "War Is for the Birds: 'Birding Babylon' and the Military-Industrial-Complex," Molly Wallace writes:

From Rachel Carson's *Silent Spring* to Terry Tempest Williams's "unnatural historical" account of bird life and nuclear testing in Utah, birds have offered a kind of metaphorical barometer of environmental destruction, a set of figurative and literal indicator species for novelists, nature writers, and scientists alike. (127)

Birds appear in *Cat's Cradle* and *Slaughterhouse-Five* in the moments directly before and after man-made destruction. Specifically, they appear in both novels as they face the result of technology developed for war. They serve as a reminder for the reader to consider the effect of cultural products on the environmental body. Their cries and inquiries force the reader to ask "how will this tragedy affect other life?" and the common denominator between the two events implicates military technology as well as the permanent-arms economy that fosters this development.

Wallace compares Vonnegut's depictions of birds to Trouern-Trend's *Birding Babylon*. In the midst of war-torn Iraq, Trend seeks solace in watching birds who seem, to Trend, unaffected—happy even—amongst the destruction of war. Conversely, Vonnegut's birds do not appear jovial and do not serve a restorative purpose for the characters and reader. After the fire-bombing in Dresden, Vonnegut's bird expresses "all there is to say about a massacre" (qtd in Wallace 141). The environmental destruction deeply affects the bird, and it is seeking explanation for this destruction from Billy Pilgrim. Its communication with Billy Pilgrim call attention to the role of humans in this devastation. The inquisitive nature of the bird is made more explicit in *Cat's Cradle*, as the bird "seemed to be asking me what had happened" (Vonnegut 280). While Trend's birds serve as the objects of his gaze, Vonnegut's inquisitive birds are looking to the characters, questioning their violence. Vonnegut's bird cries rather than sings. In considering the range of emotions the bird could be having amidst destruction, Vonnegut recognizes the emotive element of animals so regularly ignored, demonstrating a posthuman inquiry long before the official school of thought is born. He draws attention to the agency of non-human animals, and uses this avian representation to criticize human action. He forces his readers to consider the the lives of animals and the impacts our actions have upon them.

The problem with Trend's depiction of birds is that they appear separate from the human world. Historian Keith Thomas writes, "consciously or unconsciously, [questions of] the fundamental distinction between man and animals underlay everyone's behavior" (qtd in Clark 183). These assertions of human exceptionalism and separation can be seen in assertions about humankind's "unique" ability to reason, use symbolic language, or have a soul. Trend falls into this practice when he portrays the birds of Iraq existing in some bird-

Iraq, an idyllic space that lacks the turbulence of a war-torn country. Vonnegut's bird challenges this separate sphere mentality, promoting a recognition of animal bodies and animal agency, a prime example of Vonnegut's ecological thinking, of being-in-the-world. Atwood presents a darker picture in which no animal is allowed to express its own agency in the pre-apocalypse world. The state of technocracy in Atwood's novel renders all animals subjects of the Compound. Even when these separate spheres are blended and human/animal binaries are blurred, the end result remains problematic and even destructive. In *Cat's Cradle*, we see how military technology destroys the environment and the human and non-human animals within it. However, we see more clearly in *Oryx and Crake* how the culture born from technocracy, not just the technologies themselves, leaves its mark on human and non-human animal bodies as well as environments.

As discussed above, the over-consumptive society in *Oryx and Crake* necessitates biotechnology such as genetically-altered animals for meat consumption and other "needs." When Jimmy visits Crake at Watson-Crick, Crake tells him about the newest biotechnological innovation, the ChickieNob, a genetically-modified chicken made to increase yield for chicken consumption. The narrator describes it as "a large bulblike object that seemed to be covered with stippled whitish-yellow skin. Out of it came twenty thick fleshy tubes, and at the end of each tube another bulb was growing" (Atwood 127). These "chickens" lack eyes and beaks. Body parts associated with expression and defense have been rendered unnecessary, making it clear that the animal's only purpose is to serve the human. Their "head" is in the middle of the body and the mouth is at the top where, according to Crake, employees "dump nutrients" (Atwood 127). Crake's discourteous description of the feeding process reveals his indifference toward this modified animal.

This overconsumption and indifference stems from the ideologies of a scientific capitalism. The quantitative discourse of scientific community, when combined with capitalism's impetus for production, equates "more" with "better." The ChickieNobs can generate *more* food, so they must be the *better* option for meat production. In the above example, only Jimmy sickens at the idea of ChickieNobs, their bodies grotesquely mutilated in comparison to the non-modified chicken. Everyone else thinks highly of the production-increasing creation, ignoring the animal's quality of life or the ethics of extreme transgenics.

Jimmy's father mirrors Crake's indifference toward the lives of genetically-modified animals. This is immediately related to the scientific languaging informing the Compound's value system. When he finally finishes his pigoon project, his wife responds negatively, telling him, "[y]ou're interfering with the building blocks of life. It's immoral" (Atwood 57). Jimmy's father angrily retorts, "[y]ou're an educated person...It's just proteins...there's nothing sacred about cells" (Atwood 57). Jimmy's father only sees the animals for their anatomical makeup rather than their lived experience. The language of the compound reduces bodies into their constituent parts. He equates this mentality with education which we have seen is bent towards the quantitative and the scientific. His retort evidences the harmful consequences to bodies when the education system is so warped in favor of STEM fields.

When describing the game Jimmy's father and his coworkers used to play, the narrator remarks, "'create-an-animal was so much fun,' said the guys doing it; 'it made you feel like God'" (Atwood 49). In this ludic moment, animals become mere playthings for the scientists at OrganInc. The animal bodies become game pieces to be manipulated. The scientists's desire to play God, the superhuman, directly reflects the transhumanist ethos

touted by biotechnological companies that maintains human exceptionalism. Organs from the pigoons allow people to live longer and eclipse the previous definition of man. In order to facilitate this transhumanist dream—the superhuman—the scientists must also mutate the non-human animal. These pigoons, carrying human organs, are smarter than pigs of today, who are already highly intelligent and sensitive creatures. This makes their abuse all the more insidious. It also shows how the culture of the Compound impacts even the definition and makeup of the non-human. Behind every superhuman in the Compound lies violent subhuman drives and the labor of non-human animals.

Social ecologists argue that this abuse of animals stems from the social configuration of capitalist societies (Timothy Clark). The oppressive hierarchical systems and elitism generated in the United States by the economic system fosters violence against animals and the environment (Clark 89). As shown in *Capital*, people are objectified for their labor as simply a means of production. This logic is then applied to nature where nature becomes merely “natural resources” to be utilized in production, or the research and development of technology (Clark 89). The need for nature’s existence outside the realm of production is ignored.

Inversely, the objectification of animal bodies and natural environments through language and culture can also foster even greater objectification of human bodies. This effect is especially pronounced when the line between human and non-human is challenged or weakened. For instance, this occurs when various animal-related epithets are applied to marginalized groups. Animal terms and images have been evoked to oppress marginalized others throughout modern history (Goody). These epithets associate women with cows (‘heifer’), dogs (bitches), and barn animals (chicks), and people of color with apes, monkeys,

dogs, rats, and many others. Crake uses animal epithets as well. Though his insults do not reflect racist or sexist sentiment, he denigrates human intelligence on the whole:

Monkey brains, had been Crake's opinion. Monkey paws, monkey curiosity, the desire to take apart, turn inside out, smell, fondle, measure, improve, trash, discard—all hooked up to monkey brains, an advanced model of monkey brains but monkey brains all the same. Crake had no very high opinion of human ingenuity, despite the large amount of it he himself possessed.  
(Atwood 99)

Crake links the human with the non-human. He cherry-picks certain functions of human curiosity in order to reductively categorize human intelligence. This categorization erases all individual difference by defining humans by a few basic practices. Crake's conceptualization of the human also, unsurprisingly, leaves out the human desire to express or to make and enjoy art. The animalization and homogenization of humans en masse allows the logic of objectification—elucidated by the social ecologists—to carry over to the human animal.

This objectification is facilitated even more when humans and animals are blended on a greater depth than mere nomenclature. The various transgenic animals in *Oryx and Crake*, such as the pigoon, challenge the human/animal binary. The implantation of human organs and human DNA into pigs simultaneously impacts the definition of the non-human and the human animal, challenging the human form (Ku 2). Though transhumanism seeks to maintain human exceptionalism by creating the super-human, the biotechnologies it so celebrates paradoxically links the human with the non-human as well. This eases the ability for those in power to apply to logic of animal objectification to human animals. Jimmy's father—buttressed by scientific practice and discourses on human rationality—ignores the subjectivity of the pigoons he creates, seeing them as his own subjects. Here he paradoxically contributes to the undoing of his own exceptionalism as the pigoon is comprised of human

parts. If humans are superior because of their brains, and a pig can carry that exact brain, where *really* can one draw a line of distinction between the two.

The instability of these distinctions indeed fosters the same sterile and abusive treatment of humans. The narrator repeats OrganInc's selling points regarding the pigoons, "it was much cheaper than getting yourself cloned for spare parts—a few wrinkles left to be ironed out there, as Jimmy's dad used to say—or keeping a for-harvest child or two stashed away in some illegal baby orchard" (Atwood 23). Here humans are used for the same function as the pigoons. The narrator demonstrates that, by the logic of the Compound, lab animals and children are interchangeable in their disposability. Their bodies are reduced to their constituent parts or, as Jimmy's dad would say, *proteins*. The very fact that a law had to be made to criminalize baby orchards reveals the depth of this dehumanization and objectification in society.

While visiting the pleeblands with Crake, Jimmy sees advertisements such as "Blue Genes Day?....Try SnipNFix! Herediseases Removed. Why Be Short? Go Goliath! Dreamkidlets!" (Atwood 285). On this relatively high-end strip in the pleeblands, all sorts of bodily attributes that one may want in their offspring can be purchased through gene therapy. Crake tells Jimmy "[g]ender, sexual orientation, height, colour of skin and eyes—it's all on order, it can all be done or redone" (Atwood 289). In this example, the commodification of the human body has become so extreme that elements of the body can be edited and modified, as if one were buying an upgrade for their phone. The language of these advertisements demonstrates how commonplace ideas regarding genetic editing must be in order to be understood in these shorthand forms.

The ubiquitous objectification of the human body in Atwood's world is still inflected by social divisions and hierarchies. For instance, sexual objectification proliferates the trilogy, but the sexual object is almost always a woman. Born outside the economically privileged first world, the novel's second namesake, Oryx, is sold at a young age as a child servant and sex slave. Jimmy first sees her on a website called HottTotts, a pornographic website exploiting young girls. The omnipresence of these violent sites speaks to the complicity and apathy of those in Atwood's world towards sexual objectification, commodification, and exploitation. Even Jimmy, the empathetic outsider, the lover of language, partakes in this objectification of bodies. Jimmy screenshots the image of Oryx and prints and saves the picture. Jimmy thus makes Oryx his own individual object of sexual obsession. In a society where everyone and everything is a commodity, the body, particularly the female body, becomes a site of monetary exchange.

Women are also commodified in *Cat's Cradle*. As in *Oryx and Crake*, the technocratic system determines who will objectify whom. Newt's purchases a sex partner in Zinka, a Russian midget, with his possession of *ice-nine*. Newt's material benefits from the technocratic system *fosters* this trade, but the related value system—which views people, environments, and animals merely as a means of production—*justifies* this trade. Similarly, Papa Monzano offers the hand of his step-daughter, Mona, to Frank. Though Frank appears less zealous for love or sexual gratification than Newt and Angela, he still accepts. However, it may be more precise to refer to this gift as a trade. At the engagement party, Papa Monzano tells Frank, and the audience before them, “Franklin Hoenikker—you will be the next President of San Lorenzo. Science, you have science. Science is the strongest thing there is” (Vonnegut 145). Papa Monzano then clarifies “Science...Ice” (Vonnegut 145). Frank is not

given the presidency and Mona for his understanding of science. He is given it for his possession of *ice-nine*, which, of course, he has shared with Papa Monzano. Mona serves as the reciprocal gift for Frank's gift of ice-nine. Again, the female body becomes a site of monetary exchange. Mona's countenance reveals her displeasure with such a trade, leaving readers to wonder about Mona's level of consent in this trade.

Marriage is, by definition, an economic trade, and marriages have been used to form political alliances throughout human history. This may raise the question of whether or not technocracy's commodification of women and women's bodies is any different from any other political and economic system. To that effect, we must remember that technocracy is established in the mid-twentieth century. At this point, marriage remains an economic arrangement, encouraged by the state through tax benefits and economic guarantees in case of separation. The nuclear family headed by a male and female spouse is a fundamental building block of capitalist culture that makes heterosexuality compulsory and reinforces gender inequality. However, the dialogue on marriage has shifted. A marriage, according to the twentieth-century cultural narrative, occurs between two people who are *just right* for one another. Words like "soul mate" become part of the social milieu. Talk of economic motivation is largely minimized or else sanitized so as not to detract from the narrative of individualized love. Therefore the proposed marriage between Frank and Mona, with its overt economic motivations, appears as a more transparent transaction. As such, Vonnegut criticizes the technocratic system that promotes this union as a system engendering social regression. This is particularly ironic since the discourse of technocrats is centered on progression and production.

Vonnegut and Atwood criticize the apathy towards bodies, both human and nonhuman, written into the ethos of corporate-state capitalism and unregulated and irresponsible scientific practice. Despite his “good intentions,” Crake’s mass murder reflects the mentality of the corporate-scientists that he so loathes. First and foremost, Crake is experimenting, and he uses the language of experiments to reduce the victims of his massacre to subjects of an experiment. He is thus able to disregard the physical suffering caused by the virus hidden in the Blysspluss pill as well as ignore individual subjectivity and free will. Everyone is Crake’s subject in a massive biological, social, and environmental experiment.

Focusing primarily on Jimmy’s distraught state in the first novel, and the havoc caused by the escape of the Compound’s many transgenic species, Atwood marks Crake’s inventions and intentions as a failure. Dunlap writes:

With the condemnation of Crake's vision for a better future, Atwood condemns not only the biological determinism and capitalist commodification of life that allowed Crake to believe in the complete control of the Crakers, but the utopian vision that allowed Crake to believe that he could single-handedly build a sustainable planet free of hierarchy. (10-11)

Atwood warns against embracing grand narratives, be they rooted in science, economics, or environmental justice. This is a markedly Vonnegutian move. Throughout his work, Vonnegut questions the validity and consequences of grand narratives such as Religion and Reason. Bokonon’s religion of lies and his final irreverent gesture towards God are only a few of Vonnegut’s criticisms of religious grand narratives. While both novels seem to suggest that thinking outside of grand narratives is close to impossible, they present the ramifications of purely accepting these narratives uncritically. In these apocalyptic tales, the authors suggest that the reader adopt a critical eye in order to potentially prevent such dire consequences.

In *Oryx and Crake*, animals are ludicrously disfigured and humans are animalized and objectified. Bodies are used as test subjects, as human incubation chambers. In the wake of the apocalyptic virus, the dispersal of the Crakers, and the release of the various transgenic species, Jimmy is rendered monstrous another—albeit symbolic—distortion of the body. After the apocalypse, Jimmy changes his name to the Abominable Snowman. Ku explains Snowman’s reference to his monstrosity:

Since the pigoons and the Crakers are now endowed with human DNA, these two species push Snowman to reconsider what it means to be human in the age of transgenics. Monstrosity may be synonymous with either corporeal grotesquery or ethical transgression in the nineteenth-century imagination, but Atwood’s *Oryx and Crake*, while no doubt inheriting, modifying and critiquing the “mad scientist” stereotype of Frankenstein, further questions—if not totally confounds—the fine line between humanity and monstrosity with respect to their biological morphology and immanent hierarchy. (109)

The Crakers outnumber Snowman, making him, for the first time in his life, a biological minority. The Crakers do not eat living things and have a limited concept of symbolic language, lies, or violence. Snowman thus recognizes their moral superiority, one of the distinctions formerly used along with rationality, spirituality, and the like to justify a human/animal distinction.

The narrator establishes Snowman’s monstrosity early in the text as Snowman considers his chosen moniker: “[t]he Abominable Snowman — existing and not existing, flickering at the edges of blizzards, apelike man or manlike ape, stealthy, elusive, known only through rumours and through its backward-pointing footprints” (6). The “apelike man or manlike ape” description demonstrates the product of biotechnology’s blurring of man/animal binary. The chiasmus here performs the animalization of the human and the humanization of the animal. The simultaneous existing and not corresponds to his diluted humanity. The word “flickering” really highlights that dilution, as his concept of his own

humanity cannot be sustained or remain constant. Moreover, that this flickering takes place “at the edges of blizzards,” situates Snowman in a liminal space, which speaks to his lack of biological complexity in comparison to the Crakers as well as his placement at the transition between two biological epochs. His “backward-pointing footprints” solidify his inability to fit into this new world, as he is biologically and culturally tied to the past, referred to by the Crakers as “the before.”

Unlike Atwood, Vonnegut does reiterate the nineteenth century trope of monstrosity in literature, referenced earlier by Ku as the “corporeal deformity related to ethical transgressions” (108). He does so in the description of Newt Hoenikker. While *Oryx and Crake* illustrates the effect of technocracy on the bodies of its disenfranchised, the bodily distortion in Vonnegut represents symbolically the depravity of technocracy in his social allegory. When the reader first learns that Newt is a “midget,” Newt is responding to a letter from John which praises the Hoenikker family. He writes:

‘P.P.S you call our family ‘illustrious’ and I think you would maybe be making a mistake if you called it that in your book. I am a midget for instance—four feet tall. And the last we heard of my brother Frank, he was wanted by the Florida police, the FBI, and the treasury department for running stolen cars to Cuba’ (Vonnegut 18).

Newt opposes John’s accolades using his own physical difference as the first example. He then follows with Frank’s trouble with the law. Sandwiching his size between his denial of John’s commendation and his admittance of Frank’s illegal actions, Newt suggests that his physical deformity is another representation of the family’s transgressions.

Though Ku associates the trope of monstrosity and deformity with the presentation of ethical transgression in the 19th century, this theme was sewn into the Western tradition in the language and myths of the Greeks. Cuomo writes that there exists a “well-known

distinction between technician (one of the most common words for it would have been demiouros [δημιουργός]) and ‘base-technician’ (banausic [βαναυσικός])” (Cuomo 9). Those that employed their techne primarily out of avarice would have been labeled the ‘base-technician.’ Demiouros translates to “one who works for the people,” making the distinction between the two technicians primarily rooted in their intention—working for personal gain or for communal good. Indeed Cuomo identifies the baseness of the base technician with the willingness “to do anything for money,” (9). Here she adds that in Greek stories, base-technician characters were “crucially marked by corporeal deformity” (Cuomo 9). In this tradition, deformed or monstrous characters not only represent ethical transgression but the specific transgression of greed.

Vonnegut carries on this tradition using his “midget” character Newt (albeit problematically) to illustrate the greed of the Hoenikkers, the technocratic system that they represent, and his own lack of hope for the repair of this society. John explains the excerpt about midgets within *The Books of Bokkonon*:

I was grateful to Newt for calling it to my attention, for the quotation captured in a couplet the cruel paradox of Bokkononist thought, the heartbreaking necessity of lying about reality, and the heartbreaking impossibility of lying about it,

‘Midget, midget, midget, how he  
struts and winks,

For he knows a man’s as big as  
what he hopes and thinks.’ (Vonnegut 283)

Newt’s size is associated with small-mindedness in this poem, and John’s assertion that this poem reflects reality suggests that this small-mindedness extends beyond just Newt into the society as a whole. Bodily deformity in Vonnegut’s novel represents the greed within, and the ideological limits imposed, by a technocratic capitalistic society. While surely a scourge

to disability scholars, Kelly Bender supports this argument in her article “The Satirical Cat’s Cradle.” She writes “[p]erhaps Newt’s size is Vonnegut’s symbol for how much hope there seems to be at the moment—little” (Bender). A “midget” body represents a larger problem in Vonnegut’s world, a “midget” morality. The prevalence of this “midget morality” leaves Vonnegut characteristically unhopeful about the state of society and the health of the world.

The state of society and the health of the world which so concerns Vonnegut is intricately bound to the technocratic system and technocratic culture. As an economic system, technocracy shapes the material realities of those under it. This includes the alienation and stratification of people on a global, national, and regional scale. While the economic reality of technocracy places control over bodies, determining their freedom of movement and challenging at will an individual’s right to their bodily autonomy, ideological elements of technocracy also leave physical traces on bodies. Bodies of land and water and bodies of human and non-human animals are scarred by the logic of technocracy. Such logic is built upon the commodifying nature of capitalism and the objectifying nature of scientific inquiry in this era. These systems act as super-human forces, shaping the very definition of the human. Characteristic qualities of *homo sapiens* such as empathy and the sublime experience of art are curbed as the values of scientific capitalism mould society, the material goods it creates, and the kinds of behavior it accepts and normalizes. Due to historical and technological shifts, Atwood deviates from Vonnegut, showing how the physical boundaries of the human are troubled, and how that complicates what it means to be human in a biotechnological world. This chapter, unfortunately, ends without a positive note because, in the world of these texts, the ontological and biological status of the human is ultimately moot. They no longer exist.



### Chapter Three: Love, Expression, and Subjectivity in a Technocratic World

As the first novel in the MaddAddam trilogy, *Oryx and Crake* presents the aftermath of Crake's destructive purity fantasy, flashing back through Snowman's memory to explain how and, more importantly, *why* Crake wiped out humanity. Unlike the heteroglossic second novel, which is infused with the hymns of God's Gardeners, Toby's diary entries, and the many voices of the Pleeblands, the narration of *Oryx and Crake* predominantly mirrors Snowman's thoughts and language patterns. Though none of the novels in the trilogy take on a linear structure, the singularity of voice in *Oryx and Crake* heightens the effect of the frequent flashbacks, promoting a deeper psychological reading. The flashbacks in this novel invoke a sense of Snowman's wistful pensiveness which lies behind his extreme cynicism.

After the apocalypse, Snowman's subjectivity, already reduced by the technocratic Compound, is all the more diminished. Demonstrating Snowman's scattered access to memories of the past, Atwood establishes the nature of Snowman's voice (5). He is someone who has lost the context with which to even recall his former life. His status as other in the realm of Crakers leaves Snowman in an extreme state of alienation. The hallucinated presence of Oryx speaks to his maddening need for human interaction. Snowman is alone; he no longer fits in this posthuman world. Snowman's anachronistic presence can be seen in the first description of him. He wears a broken watch and "winds his dirty bedsheet around himself like a toga" (Atwood 4). This image of the Roman associates Snowman with Antiquity. As the presence of the Crakers ushers in a new era, Snowman is the only remnant of the world before. The Crakers, programmed not to engage deeply in symbolic thinking, have no sense of time in the incrementalized, 24-hour formulation that a watch marks out. The narrator relates, "[i]t causes a jolt of terror to run through him, this absence of official

time. Nobody nowhere knows what time it is” (Atwood 1). His terror is centered as much on the absence of a primary unit of organization in his previous life as well as his own isolation. “Nobody nowhere knows what time it is” translates to nobody knows to ask. He is the only being who would even think of it. The very organization of Snowman’s thought marks him as an outlier no longer fit for this Craker world.

Snowman and Jonah both change their names after the apocalypses. The fact that they apply these mythic names speaks to their sense of their own subjectivity. The biblical Jonah, a prophet of the Old Testament, is also a figure of antiquity. He brings deliverance to the Ninevites to usher in a new future. He is a part of the before. However, Jonah chooses this name in a more empowering fashion. He believes his fate—or to use the Bokononist term, his *Zah-mah-ki-bo*—is to deliver a message to those who remain after the apocalypse. Jonah takes on this prophet name because the apocalypse, and the events leading up to it, have filled him with a sense of agency and urgency.

As we saw in Chapter Two, Snowman chooses his name because of his lacking sense of belonging. He characterizes himself as a liminal figure, attached to a past he cannot bring back and stuck in a present in which he does not fit. As Snowman wrestles with his memory, these flashbacks reveal a greater theme across the novel of forgetfulness, a sense of loss in the present moment, and the need to look back that highlights his anachronistic presence. In an early chapter in *Oryx and Crake*, the narrator relates the events leading up to Jimmy’s mother’s escape. He remembers her in full detail, and as he explores his memory, the narrator says, “[w]hat did his father look like? Snowman can’t get a fix on it” (Atwood 49). This question arises like an afterthought, as if Jimmy did not even realize that he could not remember his father’s appearance. Snowman spends the majority of the novel sifting through

memories, trying to hold on to what Jimmy once knew and to sort out what elements of his memories were real or true, which words forcing their way into his consciousness were his, what signs he had missed (Atwood 95-96).

Due to its satiric nature, *Cat's Cradle* does not present such a wistful character. *Cat's Cradle* is structured as Jonah's post-apocalyptic chronicle, and therefore does not plunge into John's psyche in the way that Atwood's narrator does for *Snowman*. He spends little time in wistful introspection. He rather presents the series of events of his own journey and the events that led to the destruction of the world. He interlaces the history of Bokononism into this narrative, as his newfound faith in Bokononism inflects his understanding of the past. Despite the differences in narrative style and tone, Vonnegut and Atwood are similar in that they present a protagonist who is lost in retrospection. *Cat's Cradle* is the culmination of John's book about the history of the Atomic bomb—*The Day the World Ended*—John's own personal history, and *The Books of Bokonon* (as Bokonon gives John the last sentence of the book that, until that moment, supposedly had no end). Each of these texts claims that they present themselves as a history of human stupidity [Farrell]. The *human* element of this stupidity is inextricably linked to the desire to write histories. Indeed John writes,

‘Write it all down,’ Bokonon tells us. He is really telling us how futile it is to write or read histories. ‘Without accurate records of the past, how can men and women be expected to avoid making serious mistakes in the future?’ he asks ironically. (Vonnegut 237)

John and Bokonon mock the incredibly human need to attempt to record, remember, and understand the past as well as the futility of attempting to channel that knowledge into a better future. Yet with this realization in mind, they still partake in it. Bokonon provides John with the last sentence of *The Books of Bokonon*, and John then assumes the Jonah identity

and writes *Cat's Cradle*. Despite their dogma, Bokonon and Jonah cannot escape their desire to write history, to understand it.

Snowman and Jonah's fixation on memory and history reveal what is lost to their worlds and the impossibility of using history to change the future. As a futurist author, Atwood casts her narrative into the near future, what could be understood as a few generations removed from the present. We understand that Snowman's sense of loss stems from a multitude of societal situations that develop after our present moment. Vonnegut, on the other hand, sets his novel in the "gruesome now." This is particularly powerful because Jonah's struggle to understand the past is happening in the present. Setting the book in the present highlights the immediacy of Jonah's situation, how quickly the state of the entire world can change, and how we *right now* are already in a position where our understanding of history does little to change the reality of the present. Snowman's and Jonah's revelations demonstrate how their technocratic societies contributed to these losses, absences, this sense of forgetting. Through these themes of loss, absence, and forgetfulness we see the threat imposed by the technocratic systems in the novels to familial, platonic and romantic relationships as well as various modes of expression. The theme of memory and history in these two novels emphasize the power of forgetfulness in Vonnegut and Atwood's societies. Characters in both novels have forgotten names and languages and people as well as how to love, how to express, how to connect with others. This has left damaging effects on many types of relationships and on artistic and linguistic expression. In the societies that Vonnegut and Atwood present, no healthy parent-child relationships exists. Romantic love is commodified and scientifically sterilized. Artistic and linguistic expression is devalued and diminished, rare and forgotten. This chapter will demonstrate how the material realities and

cultural norms associated with technocracy in these two novels directly diminish relationships and thwart individual expression. It will show how the technocratic reconceptualization of love and expression hinders the development of subjectivity and therefore emotionally damages the characters.

In *Oryx and Crake*, the Compound value system, whose relationship with technoscience and state-corporate capitalism was evidenced at length in chapter two, stresses constant research, production, and consumption. Parents of Compound kids, therefore, spend most of their time at work or focusing on work. This has been so normalized that full and nurturing parent-child relationships are no longer a societal priority. Absentee mothers and fathers proliferate the text. Jimmy and Crake at times benefit from parental neglect, as the absence of Crake's guardians gives them the freedom to browse violent and pornographic sites and play games together. Atwood writes, "[l]ate afternoons were the best time for doing these things at Crakes place. Nobody interrupted them. Crake's mother was out a lot, or in a hurry, she worked as a diagnostician at the hospital complex" (88). Paradoxically, Jimmy and Crake's relationship develops on the condition of Crake's mother's absenteeism, on the weakness of their parent-child relationship. Here the relationship between parental neglect and the culture of the Compound is made overt. Not only does Crake's mother miss time with Crake because of work, she also facilitates Crake and Jimmy's problematic voyeurism by not providing parental censorship. The violence of the Compound and pleebland society is sanctioned by absent parents. Their truancy manifests at times in their forgetfulness, as the narrator continues, "Jimmy had the impression [Crake's mother] couldn't remember his name, not only that, she couldn't remember Crake's name either" (Atwood 88). Crake's

mother is absent from his life, but, more importantly, he is absent from her thoughts. She even forgets the highest symbolic referent to her son's identity

When Jimmy's mother abandons him, Crake responds with hurtful nonchalance.

Atwood writes:

When Jimmy's mother took off like that...Crake didn't say much. He didn't seem surprised or shocked. All he said was that some people needed to change, and to change they needed to be elsewhere. He said a person could be in your life and then not in it anymore. He said Jimmy should read up on the Stoics. (70)

Crake's response demonstrates how normalized this kind of abandonment has become in society. Crake minimizes the importance of the mother, lumping her in with any other person who may feel the need to enter and exit Jimmy's life. He parrots the discourse of the Compound which diminishes the importance of woman as mother in favor of woman as producer/consumer. Moreover, the consumeristic nature of this society praises the individual, targeting advertisements towards the development of a better self. The health and happiness of a family or a community takes a back seat to the health and happiness of an individual. Thus Jimmy's mother is not an outlier in Compound parents, she is yet another statistic.

Jimmy's mother and father reflect this same forgetfulness. They annually forget Jimmy's birthday, a celebration of life and a reaffirmation of identity that exists in several cultures. His parents resort to getting him day-late and unthoughtful gifts. The narrator says of Jimmy's mother "[h]is mother on the other hand could never seem to recall how old Jimmy was or what day he was born..." (Atwood 50). Jimmy's mother forgets crucial details of Jimmy's life, demonstrating her complete lack of presence and presents. The ellipsis in this quote highlights the sense of absence in Jimmy's home environment, as this form of punctuation denotes something left unfinished, something left unsaid. These examples not only reveal fissures in the family structure but also the diminishing presence of

language—Crake’s mother rarely using his name—and tradition—Jimmy’s half-baked birthday celebrations.

Initially, Jimmy’s parents’ absence appears directly related to their dedication to their work. However, Jimmy’s mother grows increasingly disheartened by Compound life and value systems. She eventually runs off to join an environmentalist counter-movement. Atwood seems to suggest that Jimmy’s mother’s absenteeism does not merely stem from Compound values and family structures. Even the counter-movements contribute to and are complicit in the destabilization of family. One could argue that because Compound economics and culture incited these counter-movements that the fault is still upon them for breaking up Jimmy’s family. However, I argue that many societies in *Oryx and Crake*, central or countercultural, have forgotten how to nurture a familial relationship. In the second novel, a woman runs off to join God’s Gardeners, this time bringing her daughter. However, she spends so much time obsessing about the health of her romantic relationship with one of the group’s leaders that she often neglects the needs and desires of her daughter. Thus, the material realities and ideologies of Atwood’s technocracy have left such deep cultural imprints that even those working to oppose it wind up in the same state of cultural forgetfulness. Atwood’s criticism of declining family values resonates in her dedication in which she writes, “for my family.”

*Cat’s Cradle* also depicts negligent parenting that lead to empty familial relationships.

Mrs. Hoemaker dies in childbirth, leaving Newt, Frank, and Angela with a neglectful and emotion-blind father. His neglect relates directly to his scientific perspective. He is so caught up with his experiments that he forgets to tend to his children. Secretary to the General Forge

and Foundry Company, Miss Faust tells John that she does not think Dr. Hoenikker was knowable. She says, ““when most people talk about knowing somebody...they’re talking about intimate things, family things, love things...Dr. Hoenikker had all those things in his life...but they weren’t the main things with him”” (Vonnegut 53). When John asks what were the main things with him, she replies “truth” (Vonnegut 53). Truth, to Dr. Hoenikker, could be gained through empirical research and experimentation. Committing his life to this, he forgets to involve himself with his children. While Dr. Hoenikker spends his time working for a state-funded research lab, he neglects his children due to his own exhaustive quest for truth rather than employer or societal pressure to produce. By being always lost in thought or tinkering with something, Dr. Hoenikker, even when he is at home, forgets to invest in his children’s lives. This shows how dangerous an empirical quest for truth can be, not only is it dishearteningly unattainable, it puts blinders on emotion and disregards the welfare of others.

The situation appears opposite in Atwood’s world. As opposed to being deeply lost in thought, the Compound parents appear absent-minded, as if their minds have checked out. This may be related to how this society consumes and is consumed. Compound employees are so consumed by work that they have little time for anything else. However, when they do have free time, they participate in the consumerist Compound culture. The Compound is inundated with distracting advertisements selling new and improved items to distract oneself. There is very little time to process, there is little time for introspection or reflection. Faced with an increasingly demanding present, Compound parents forget the past and ignore the future, making it easy to forget things like birthdays until after they have come.

The same event that demonstrated Hoenikker’s ludic disinterest in the the destruction wrought by his research in chapter two reveals how his lifestyle alienated his children from

him. When Hoenikker tries to play with young Newt, the irregularity of his action frightens Newt to the extent that he runs out of the house screaming. Newt explains this moment of terror in his letter to John. Dr. Hoenikker crawls on the floor to get on Newt's level, and Newt writes, "[c]igar smoke made him smell like the mouth of Hell. So close up, my father was the ugliest thing I had ever seen. I dream about it all the time" (Vonnegut 11). This act of physical closeness and intimacy is foreign to Newt. Newt has normalized his father's inquiry-driven negligence. As such, this deviance in behavior frightens him. Like Snowman, who cannot remember his father's appearance, it is possible that Newt was never truly aware of his father's features because of his father's physical and emotional distance. When confronted with them so suddenly, Newt's unfamiliarity with his father makes the details of his face and breath cartoonishly hellish. Just as the biotechnology born from technocracy renders Snowman monstrous in *Oryx and Crake*, Dr. Hoenikker's inquiry-driven negligence makes him a monster in his child's eyes, nightmarish and haunting even into Newt's adult life. In each case we see how the absence of the parents opened space for the culture of technocracy to influence the children directly.

In Atwood's novel, forgetful and absent parents appear ubiquitously, whereas in Vonnegut's work, other characters recognize Dr. Hoenikker's deviant parenthood. He is an outlier. Atwood presents a society where all parents, and the children alike, are compelled to overwork themselves and overconsume. These values are so deeply enmeshed that Snowman's hallucinations of Oryx are presented in the language of consumption. Snowman begs his hallucination to speak to him, and Atwood writes, "*Oh, nice abs!*" comes the whisper, interrupting him. *Honey, just lie back* (11). The language in Snowman's hallucination breaks down. The first phrase, like a tag-line, mimics the language of an advertisement. The second

mirrors that of a sex worker. Snowman's memory is entirely shaped by consumption. His superior linguistic capabilities are reduced to the language used to sell objects, to sell people. Early in the text, we already see Atwood's mounting criticism of this highly consumerist society.

Therefore, as Atwood criticizes the technocratic society of the Compound, and its imperial effects on the rest of the world, Vonnegut's criticism appears at first more narrow. The only other parentless child in Vonnegut's text, Mona Monzano (Papa Monzano's step-daughter), loses her father to countless World War II prisoner exchanges. He is moved from the Russians to the Serbians to Yugoslavians, caught in the constant ebb of war. As a satiric figure, Dr. Hoenikker represents the potential narrow-mindedness of corporate funded scientific inquiry, as he forgets even his family in his quest for empirically-unearthed truth. Here, Mona's orphanhood, and the absurd odyssey of her imprisoned father, highlights the pervasive nature of war in the twentieth century. When thinking of these two examples in tandem, they together function to indict technocracy in its two essential halves—the state and industry. The production of war technology and weaponry emblemized in Dr. Hoenikker's workplace is the central cog in a permanent-arms economy which maintains a near constant state of war; the very thing that takes Mona's father away from her. Mona and Newt's orphanhood is the sad effect of a state-science-driven permanent-arms-economy, the reigning economic system in the United States in the 1960's and a central element of US technocracy.

Like Mona, Crake is also orphaned by the technocratic system. Crake's symbolic orphanhood is made real when his mother is murdered by a rival Compound corporation. Corporate espionage occurs often in the Compound world. This is one of the reasons Jimmy's father gives for such tight security at the Compound. As we saw in chapter two, the

values associated with scientific discourse and capitalism foster the objectification of human and non-human animals, in this case, employees. The narrator recounts, “[i]t was an accident, or so went the story. (Nobody liked to say the word *sabotage*, which was notoriously bad for business)” (Atwood 176). A hostile bioform consisting of “a transgenetic staph...mixed with a clever gene from the slime-mould family” literally dissolved Crake’s mother (Atwood 176). Her gruesome death serves as a literalized representation of the dissolving family in Atwood’s world. The technocratic culture of the Compound even encouraged the murder of Crake’s mother, and many other mothers and fathers. The kidnapping and murdering of competing scientists—and the concomitant destruction of scientists’ families—occur so frequently in Atwood’s world that the event was not scandalizing at all. In fact, it was silenced by the company due to their weariness for bad press.

The corporation’s revision of truth and willful avoidance of the word espionage reveals the extent of information control at play in Atwood’s society. The corporations morph language and narratives to ensure their profitability, their power. The Corp(se)Corp men may ensure obedience through the threat of physical violence, but the heads of corporations rely on several methods to maintain power. While the incredibly uneven distribution of technical knowledge and resources perpetuates the gross stratification of wealth, the control of information thwarts revolution and revolt. The corporations decide the term “sabotage” is not preferable, and, as a result, no one uses it. They clearly hold the power over the narrative. Every product is marketed with kitchy and taglined names, revealing a homogenization of advertising techniques. As we saw earlier, the overloading of information also contributes to the mental state of the Compound parents and their role in the family. This shaping, limiting, rephrasing, and overloading of information is so successful in the

Compound purely because a select few—the higher ups of the corporations—hold the power.

While Mona's father was instrumentalized and then traded from country to country, Jimmy's mother—and several other leading scientists—is instrumentalized and traded about by techno-corporations. In both cases, the paradigm that a person exists primarily as a tool to serve the needs of a larger unit—be it a country's military or a corporation—results in their dehumanization. This ultimately fosters even the grizzliest of murders. The difference between the constant war of Vonnegut's world and that of Atwood's is reflected in the text when Jimmy's father explains the need for the Compound's rigid security:

When there was so much at stake, there was no telling what the other side might resort to. The other side, or the other sides: it wasn't just one other side you had to watch out for. Other companies, other countries, various factions and plotters. There was too much hardware around, said Jimmy's father. Too much hardware, too much software, too many hostile bioforms, too many weapons of every kind. And too much envy and fanaticism and bad faith.  
(Atwood 28)

The narrator suggests that the scope of sides referred to here is a recent development. The implication here is that war is no longer broken down into sides demarcated by national lines and ideological affiliations, as it is in Vonnegut's world. While economic motivations for war have always been present, they are no longer couched in nationalistic terms. In Atwood's world where technocracy has reached its logical conclusion—eliminating the need for a controlling body in the form of national government—war is centered in the corporate. Even the ideological wars waged by the “various factions and plotters” rove around the nucleus of Atwood's corporate technocracy, as different groups and gangs respond to the economic reality and the co-created ideologies of this system.

There is a notable difference between war in Atwood's and Vonnegut's worlds as well as the extent of familial absence. These differences serve as a lens through which to

reveal how the technocratic system has changed in scope since *Cat's Cradle* was published. The technologies themselves have advanced, society has become more consumerist, corporations have grown larger, and their role in the legislative process has grown (Harvey). These changes in scope thus leave a greater and deeper imprint on society—be it on relationships or on individual subjectivity and expression. In both novels, cultures promoting parental forgetfulness leaves characters such as Newt and Jimmy with a profound sense of loss. Davis notes that during Vonnegut's time at the University of Chicago, he came across the work of Robert Redfield. Redfield's "theory suggests that all human beings, for physical and emotional well-being, *need* to belong to extended families, localized communities" (Davis 65) [emphasis mine]. In response to Redfield, Vonnegut comments "it is curious that such communities should be so rare, since human beings are genetically such gregarious creatures. They need plenty of like-minded friends and relatives almost as much as they need B-complex vitamins and a heartfelt moral code" (*Palm Sunday* 204). Vonnegut's conflation between social and somatic necessity in this quote informs the reading of a scene of *Cat's Cradle*. John transcribes a bar conversation in which a woman says that she read in the paper that scientists have found the secret to life. The bartender interjects, "[p]rotein...They found out something about protein," to which the woman agrees (Vonnegut 25). This biological answer to the secret of life is presented in such an anti-climatic manner; it shows how a consideration of life merely in terms of science is an empty approach. It leaves out an understanding of the crucial necessity of human connection. *Cat's Cradle* stands, in part, as a commentary on the social effects of a society that has such a dearth of these connections. Vonnegut's comparison between relationships and vitamins seems to predict Atwood's criticism, as the society she creates has a wealth of vitamin supplements and health enhancers

(Atwood 248), but they ultimately fail to fill the absence of deep familial, platonic, and romantic relationships.

In fact, no truly fulfilling or healthy romantic relationship is portrayed in *Cat's Cradle* or *Oryx and Crake*. In *Cat's Cradle*, Newt and Angela try to ameliorate the loneliness of their childhood by finding a partner. In both cases, their possession of *ice-nine* secures their partner. It is not impossible that they could have found a partner without bribery or trade, but I believe that their childhood in an emotionless household hindered their emotional and social growth. While Dr. Hoenikker forgets to parent, his children lose the opportunity to learn to love. Newt explains his sister's behavior to John, writing that as an adolescent "[s]he didn't have any boyfriends. She didn't have any friends at all" (Vonnegut 16). Angela is deeply affected by this lack of connection to others. Thus when Harrison C Connors arrives at her door in the wake of her father's death, she does not hesitate to marry him. As president of FabriTek, another technology company dedicated to the production of war technology, Connors' interest in Angela for her possession of *ice-nine* becomes apparent almost immediately (Vonnegut 179).

Their marriage is therefore merely a commodity exchange, an intrinsically technocratic trade as he gets technology, *ice-nine*, and she gets a social power through being able to flaunt a rich and highly attractive man. She can only get social power from this merger because her marriage is a farce; Connors has no affection for her. While all marriages consist of some form of economic exchange, the fact that their relationship is built solely on trade speaks to the superficial nature of the relationship. Connors appears to have no regard for Angela, or, if anything, disdains her outright. Newt tells John "[h]er husband is mean as hell to her...he hardly ever comes home—and, when he does, he's drunk and generally

covered with lipstick” (Vonnegut 179). Though Angela inverts the patriarchal power structure by selling instead of being sold, she is still subject to her husband’s abuse. Angela never lets any of this show, relying on Connors’ good looks and public performance to present a false picture of marital happiness. She subjects herself to the abuse and infidelity of her husband so that she may at least *appear* romantically fulfilled. Angela’s lack of an understanding of love leaves her to rely on merely the image of what she thinks love looks like for satisfaction. In the Compound, advertising images are omnipresent. Similarly, Angela creates an image of her “loving” relationship and sells this to the people she encounters. Thus, the logic of consumer capitalism and technocracy inform her behavior.

Whereas Angela is deeply motivated to feel a sense of emotional connection, Crake appears comfortable in his solitude. Crake’s sense of comfort in not feeling strong bonds is the logical conclusion of a society that has normalized a lack of fulfilling relationships. He does not behave like Angela because he does not know that there is even a lack to be felt. It is exactly this reality of the Compound world that gives Crake the capacity to wipe out humanity. He does not feel connected to anyone, so their deaths do not matter.

In a society which forgets emotionality as the demand for production increases and the discourses of capitalism and science proliferate, it comes as no surprise that Angela makes a Faustian trade of legitimate romantic love for the superficial image of the dream American couple. In fact, nearly all the romantic relationships in both novels are presented as nothing more than commodity exchanges. In Newt’s letter to John early in the novel, he writes that, “[a]ctually I am a very lucky person and I know it. I am about to marry a wonderful little girl. There is love enough in this world for everybody” (Vonnegut 18). We

immediately find out that this little girl, a russian dancer and secret spy named Zinka, leaves Newt within a week of their romance, taking some *ice-nine* with her.

Though it is ambiguous whether or not Newt gave Zinka *ice-nine* for her companionship and sex, Newt speaks about the relationship in terms of commodity exchange. He tells John, “[Zinka] broke my heart. I didn’t like that much. But that was the price. In this world, you get what you pay for” (Vonnegut 128). Here Newt conflates his failed relationship with the capitalistic society he lives in, suggesting that relationships are rooted in terms of monetary exchange. While Zinka clearly dated Newt to provide the Russians with *ice-nine*, Vonnegut’s irony surfaces in the false reason she gives for leaving Newt. John writes that “[s]he said Americans were too materialistic” (Vonnegut 20). Zinka easily convinces Newt that they are in a mutual, loving relationship. I argue that she manipulates Newt from this specific angle because he was such an alienated child. His alienation makes him desire emotional connection. His stunted emotional development and his lack of an understanding of love makes Zinka’s narrative easy to sell.

Both sides of these two material relationships reveal the declining state of relationships in Vonnegut’s technocratic world. The Hoenikker children, rendered ignorant to the concept of love by their distracted, empiricist father, are melancholic. They know the artificiality of their trades, they receive no emotional connections from them, yet they defend their relationships (Vonnegut 127, 179). Newt and Angela consent to this artificial love because they want to reproduce at least an image of the societal norm. They have accepted the ideology of the state. This interpellation prevents them from attempting to find more fulfilling relationships. Moreover, the availability of companionship in exchange for *ice-nine* disincentivises their effort to find a companion through trial-and-error. On the other side of

that coin, Connors and Zinka must make themselves commodities, selling their bodies and their time for the benefit of their company and country respectively. In all cases, people are denied the opportunity for romantic love and this denial is linked to the power of the technocratic state.

Introducing what he knows about Newt's former lover, to his readers John writes, "Zinka—plain Zinka. Apparently she didn't have a last name" (Vonnegut 19). Zinka's lack of a last name, an integral aspect of identity and subjectivity, reaffirms her commodity status. Like Mona's father and Crake's mother, Zinka is a human instrument—in her case for Russian intelligence. She is temporarily sold to Newt for access to war technology. The competition between the United States and the USSR in the Cold War era is carried out through technology development, the yardstick of international superiority at this time. Vonnegut thus comically belittles the moves and counter-moves of technocracy operating on an international scale, as this technocratic competition is played out by two midgets.

Like Zinka, Oryx also has no last name, as well as no memory of her given name. As evidenced in chapter two, Oryx's status as sexual commodity is established at a young age when she is purchased by the gold wristwatch man. But her subjecthood is also diminished by Jimmy's obsession with her image on HottTotts. He continues to interact with her as an object when he meets the *real* Oryx. Oryx responds ambiguously when Jimmy points her out in his photograph, and the question of whether or not this is truly Oryx contributes to the reading that Jimmy has created a fantasy out of this image. He imposes an identity upon her. This behavior hinders Jimmy's ability to connect with Oryx because his idealized conception of Oryx never matches reality. He is constantly let down, and he consistently projects himself into fantasy. More importantly though, it puts Oryx on a pedestal of

perfection which further fosters her dehumanization. Oryx challenges Jimmy's fantasy by constantly thwarting the narrative he tries to write of her past. He asks her several questions, trying to paint her as a victim—trying to unearth the troubled past which must be overcome in his fairy-tale romantic fantasy. Oryx responds to his questions indifferently, frustrating Jimmy. When he tries to get her to denounce her pimp, to get angry, to be hurt, Oryx replies that she is happy it brought her to where she is today. Jimmy angrily responds “I don't buy it” (Atwood 142). His persistent need to uncover the abuses of her past makes her something, in DiMarco's term, to “emotionally conquer” (185). He solidifies this conqueror/conquered, knower/known relationship by refusing to answer questions about himself, though he asks them to her repeatedly. Oryx's response simultaneously demonstrates her own unavailability to Jimmy and her own assumption that buying and selling are the most basic operations, as she retorts, “what is it that you would like to buy?” (Atwood 142). Oryx pushes against Jimmy's idealized version of her by refusing to grant him the narrative he wants.

However, her response resembles the language of prostitution like that within Snowman's hallucinations of Oryx. Though she resists Jimmy's narrative, she still acts as if her speech, her personal history, and her body are commodities. Forgetting her own name is just the surface of Oryx's diminished subjectivity. She reinforces her own subjectivity by rejecting Jimmy's assumptions, but her sense of subjectivity cannot be separated from her sense of self as commodity. This sense of acceptance may be beneficial to Oryx, who does not feel the same societally-fostered crippling loneliness as Jimmy or the pain Snowman feels at forgetting aspects of his world (Atwood 7). However, Oryx's nonchalance

demonstrates the degree to which Atwood's society has normalized what Jimmy sees as a great lack—a lack of personal history, parentage, name, or sexual agency.

Once again, Jimmy is seen as the outlier. His emotional response to Oryx's trauma is ridiculed. Growing angrier by the mere thought of her pimp—"Jack, this piece of garbage"—Jimmy again probes Oryx for some sort of emotional response (Atwood 142). Oryx responds, "Crake is right...[y]ou do not have an elegant mind" (Atwood 142). Jimmy is seen by both Crake and Oryx as intellectually deficient because of his distress in the face Oryx's abuse and, more broadly, the isolating elements of his society. The narrator translates Oryx's dis, "[e]legant mind was just mathtalk, that patronizing jargon the math nerds used, but it hurt Jimmy anyway" (Atwood 142). The language of technocracy again contributes to Jimmy's isolation as well as the sanctioning of abuse in Atwood's world.

Jimmy gets insulted because he challenges the gold wristwatch man's actions and the sex slave trade he is involved in. Oryx uses the jargon of the scientific community to invalidate Jimmy's emotional response, revealing the prejudice held by this empirical community against emotion or sentiment. Moreover, the patronizing and isolating power of this term demonstrates the depth of the divide in the Compound between scientific people and those drawn to the corpse of the humanities. In this way, language is used to hurt Jimmy and to punish him for his more socio-cultural-centered affinities. Through these epithets, language can be used by the scientific-corporate community as a means of control, privileging the pursuit of science—and the culture of the Compound—over other alternatives.

Indeed, the highly scientific language coloring the day to day communication of society in the Compound contributes to the absence of more traditional romantic

relationships. For example, Jimmy and Crake's high school life skills class teaches them "family heredity research, negotiating your own marriage-and-divorce contracts, wise genetic match-mating, the proper use of condoms to avoid sexually transmitted bioforms" (Atwood 24). The language of "wise genetic matching" sanitizes sex and relationships to the point of the clinical, removing any notion of feeling, love, or passion. While there is no question that marriage licenses, prenuptials, and divorce papers have always been contracts, this kind of language is typically avoided in American society, replaced by the more ambiguous term "papers" in order to underplay the business aspect of the marriage. Members of the Compound forgo, or perhaps forget, this socially agreed-upon mask. There is no need, in their world, to minimize the business side of a marriage in order to highlight the aspect of mutual love. Atwood's society inverts our language norm, minimizing, or completely erasing, the element of love in marriage. Jimmy's life skills class additionally fosters the elitism of the Compound, as it advises adolescents to look for partners who could bear the most socially acceptable—the most profitable—child. Thus the language not only erases concepts of love and romance, it perpetuates the ideals of corporate capitalism.

Jimmy carries the scientific language of the classroom into the home. Jimmy's depiction of his attractive stepmother demonstrates his recognition of her sexuality while paradoxically desexualizing her with scientific language: "Ramona's push-up-bra breast tops were freckled from too much sun, not that Jimmy was much interested in those any more. He was familiar with the tectonics of cantilevered mammary-gland support devices by now" (Atwood 175). Here even lust—or lack thereof—is couched in scientific language. Ramona's intimate wear is described in the language of engineering. The narrator, miming Jimmy's

thoughts, refers to Romana's breasts in biological terms. This language choice completely removes the sexual element from Romana.

While it can be a sign of progress when women are not seen merely as objects of sexual desire, in this case, this language is just as impersonal and objectifying. Jimmy reduces Romana's breasts—a symbol of femininity, an erogenous zone, and the source of food for her soon-to-be-born child—to merely a collection of glands shaped by carefully engineered apparel. Using the language of the study of anatomy in this manner reduces the human merely to a set of parts, or, in the words of Jimmy's father, "just proteins." As Jimmy's societally-instilled cynicism grows, his language reflects his declining humanitarianism. He becomes less of an outlier. The depersonalization that this kind of language fosters makes interpersonal and sexual violence easier to commit and interpersonal intimacy more difficult to achieve. It comes as no surprise that sexual violence affects every female character in the trilogy.

In *Cat's Cradle*, Mona serves as an exotic object of love-obsession for John like Oryx for Jimmy. On the plane to San Lorenzo, John spots her on the cover of the *Sunday Times*. He writes, "I was in no hurry to read the contents. The girl on the cover was enough for me—more than enough, since I had fallen in love with her on the sight" (Vonnegut 80). John, like Jimmy, develops intense feelings for a woman based on a print image, allowing him to provide his own caption, so to speak, of her identity. John's claim also reveals that his conception of love is as shallow as Newt is short. He likens her appearance with food, writing "[s]he was brown as chocolate. Her hair was like golden flax" (Vonnegut 80). Objectifying women through comparisons to food is a common practice (Adams 22). John renders Mona consumable, increasing his capacity to make her *his* own fantasized object.

This is not merely a flaw on John's part. The *Sunday Times* no doubt intentionally puts this beautiful woman on the cover to sell their papers. They deliver this image to be consumed. John's problematic response is socially sanctioned.

John doubles down on his objectification, continuing, "I opened the supplement, hoping for more pictures of this sublime, mongrel Madonna" (Vonnegut 80). He compares her to animals and angels, the sub and the super-human. His specific use of the word "mongrel," which connotes a wild, untamed animal also mimics imperial attitudes towards the colonial subject. The term mongrel is a remnant of colonialist language in which blood was used as a metaphor for life and identity. This metaphor traces back to Antiquity, as Aristotle believed blood to be the nutrient that fed life (Roof 189). Through history, blood has been used almost ambivalently as a metaphor for food, life, soul. In *The Poetics of DNA*, Judith Roof writes that despite the fact no evidence exists that people thought blood was the agent which carried elements of the parent into the offspring, "blood has nonetheless become a lasting synecdoche for kinship, a way to conceive the connections among fathers, mothers, and children...we have bloodlines and blood relatives; we share blood" (189). The concept of a mongrel, of mixed blood, thus served as an othering tool for the colonizing body. John's incorporation of this highly problematic language dehumanizes Mona from yet another angle, making her a colonial subject to be conquered, a wild beast to be tamed.

While Angela pays for the picture of love, John believes he has found love in a picture. I attributed Angela and the other Hoenikker children's corrupt sense of love to the loneliness of their atypical childhood. However John, as a relatively "normal" character, has an equally dwarfed, as well as egocentric, conception of romantic love. John describes Mona using the language of consumption and imperialism. He thus reflects the attitudes of the

United States economy, driven by consumption and the subjection of global other (Godden). Here the values of the corporate-state, permanent-defense economy—pillars of technocracy—impact social elements such as John’s problematic understanding of romantic love.

So many characters in the novels have either forgotten how to love or have internalized the logic of their highly technological and capitalistic societies to the point that these efforts are violent and problematic. The isolation created by these social conditions and forgone emotions is compounded by the difficulty faced by these characters to make or maintain friends. Thus another social bond is threatened. Atwood explains that friendships in the Compound are fleeting and rooted in the politics of the corporations: “[Crake] was a transfer, the result of some headhunt involving a parental unit: these were frequent among the Compounds. Kids came and went, desks filled and emptied, friendship was always contingent” (71). Jimmy, Crake, and the rest of the Compound kids are not allowed long and lasting friendships. This is directly related to the highly competitive economy of the Compound corporations. The constant movement and manipulation of employees on the Compound, like pieces on a chessboard, reveals the apathy corporations have for their employees. The employees are merely part of a process, parts which can be traded and replaced.

As such, the children of these employees move around frequently, hindering the development of deep friendships that are so necessary for emotional development, coping with childhood trauma, creating trust, expressing deeply personal information, as well as general happiness and enjoyment (Strauss). Even Jimmy’s best friend, Crake, ultimately manipulates him, knowingly, in the most personal way. He lies about the nature of his project

and murders the woman Jimmy “loves” to ensure that Jimmy takes care of the Crakers. The constant shuffling of friends, and the stifled emotional development of Compound kids, makes even best friends unknowable. Snowman’s depression and his need to comb through his past in part stems from his desire to review his relationship with Crake, to identify what moments were real and what were merely parts of Crake’s plan. (Atwood 40).

The characters in *Cat’s Cradle* and *Oryx and Crake* are not only deficient in their ability to express love but to express themselves altogether. These two novels present societies where art is constrained to commercial purposes, language is mutated, and meaning is impossible to convey. As a “word person,” Jimmy chooses to attend Martha Graham, a former liberal arts school, in order to pursue his enjoyment of language. His highly consumerist and scientifically-bent society, however, only values art and expression when it can be used to encourage consumption, no longer valuing expression as a tool for analyzing history or experience or for its simple beauty. The Compound society is not only increasingly scientific in its discourse, it also communicates with a progressively more stripped, cliched, and impersonal language.

The Compound and the Pleeblands are inundated with advertisements, the language of which seeps into everyday expression. This society appears unbothered by the regression of expression into catchphrases. For example, Jimmy’s stepmom, Romana, who works for the prestigious OrganInk, talks “like a shower-gel babe in an ad. She wasn’t stupid.... She just didn’t want to put her neuron power into long sentences” (Atwood 16). In this society, which values efficiency, people are quick to disregard anything that may come off as a waste of time. That Romana seeks to save her time by omitting more complex expression speaks to the decreased value of expression through language. Comparing her to an advertisement

suggests that she merely repeats language, her sentiments are merely a performance. She casts aside original thought or feeling, mirroring the actions of others which society crafts. She becomes an automaton, a body that moves and reproduces expectations, forgetting her own individualized responses beneath the performance, and forgetting how to use language to disentangle her thoughts and feelings. It is not merely the bioscience of the Compound that produces robots and superhumans, these automtoms are also culturally produced as modes for self-expression are increasingly limited, mutated, and eliminated.

Though Jimmy goes to school to study language, Atwood's society only values language study when it can facilitate consumerism. His language study is therefore thinly veiled advertising. Jimmy jokes about the superficial quality of his major, Problematics, by referring to it as "Spin and Grin" (Atwood 110). Here Jimmy will learn "[w]indow-dressing... decorating the cold, hard, numerical real world in flossy 2-D verbiage" (Atwood 111). The Compound and pleebland citizens, still people with human needs, rely on art—even at its most meaningless form—in order to dress up the reality in which they live. In desperation, Snowman runs through the dressed-up words of advertising in his head, seeking solace in their empty beauty. While this is the highest extent of art most people in this society require, Jimmy's cynicism in this passage exposes his dismay at the slim definition of art that is socially acceptable for him to produce. Windows, in their transparency, evoke a lack of substance in Jimmy's work, which he laments. Moreover the image of Jimmy decorating a shop window, on the outside looking in, reinforces his outsider status in this scientific society.

Hardened by the state of art in society, Jimmy chooses to write his senior thesis on the lowest of low-brow literature—self-help books. Jimmy makes his decision—an act of

both resignation and rebellion—out of spite, as the decision comes directly after he concludes that, “[t]he system had filed him among the rejects, and what he was studying was considered – at the decision making levels, the levels of real power – an archaic waste of time” (Atwood 115). Atwood makes the level of language control overt in this quote. Jimmy is disenfranchised by his predilection for art over science. Jimmy throws himself into the most common form of literature knowing that no matter what he focuses on, it will be received with little to no interest. Jimmy often entertains his friends with the self-help book language. At one point, he performs a bit on a book that does not exist, a book of his own imagination. He writes his senior dissertation on this apocryphal text and no one even realizes it. He earns an A, a testament to the level of attention given to linguistic scholarship. The disinterest or willful ignorance on the part of the highest echelons of technocracy, echoes the ethos of their technocratic society. In this society, where time is a commodity, Jimmy’s graders do not give him their time, as the governing bodies of this society—the corporations—hold little value for literary endeavors.

After the apocalypse, Snowman’s thought is plagued by cliches and fragments of his self-help book research. His linguistic trajectory, almost atavistic in nature, robs him of the emotive and comprehensive vocabulary he treasures. Feeling he is losing himself, Jimmy warns himself, “hang on to the words” (Atwood 40). The words, as Jimmy’s sole outlet for expression, are Jimmy’s only tangible concept of identity. But Jimmy also knows that those words will never have an audience, as the Crakers, by design, communicate very simply (Atwood 7, 305). The art and culture which created those words died with the rest of the world’s population. In these post-apocalyptic moments, Jimmy’s desire to look back on the before, to remember the language he loves, only reveals that society was already in the

process of forgetting. This forgetting contributed to and culminated in the apocalypse, the final loss.

Snowman characterizes this forgetting as a separation of the mind and the body that results from a highly technological society. It appears that all members of this society suffer from a mind/body separation (Dunning). This creates divisions within the self to the extent that the body has autonomy, separating itself from the consciousness. A disillusioned Snowman reflects on this division as he tries to locate the reason for humanity's downfall in the forms of entertainment enjoyed anonymously by individuals in his society:

When did the body first set out on its own adventures?...It must have got tired of the soul's constant nagging and whining and the anxiety-driven, intellectual web-spinning of the mind, distracting it whenever it was getting its teeth into something juicy or its fingers into something good. It has dumped the other two back there somewhere... while it made a beeline for the topless bars, and it had dumped culture along with them: music and painting and poetry and plays. Sublimation, all of it; nothing but sublimation, according to the body. Why not cut to the chase? But the body had its own cultural forms. It had its own art. Executions were its tragedies, pornography was its romance. (Atwood 50)

The social devaluation of mindful art leaves only violent and empty forms of consumer entertainment and expression in its place. Snowman associates art with expression, identity, and subjectivity. In a society which forgets the importance of art, Jimmy increasingly loses himself. On top of the physical alienation and social isolation created by the technocracy, Snowman is subjected to the deepest form of alienation—alienation from the self.

True to the pattern set by this paper, Vonnegut's world does not reflect a devolution of language and separation from self to the extent that Atwood's does. Nevertheless, the text celebrates the power and necessity of art in human society and implicitly references its precarious state and the threat to its survival. At a ceremony at the Monzano residence, Phillip Castle strikes up a conversation with John, telling him, "I'm thinking of calling a

general strike of all writers until mankind finally comes to its senses” (Vonnegut 231). John responds “[d]o writers have a right to strike? That would be like the police or firemen walking out” (Vonnegut 231). John suggests that artists serve a societal function just as important as the police while simultaneously making the criticism that art can function, like the police, as a means to control a population, as the advertisement art in *Oryx and Crake* does. However, the reference to firemen also suggests that art protects life. Surely, the lack of art threatens life in *Oryx and Crake*. Phillip continues with the ramifications of his hypothetical, saying people would “die like mad dogs, I think—snarling and snapping at each other and biting their own tails” (Vonnegut 231). Phillip asserts that a world without art would produce violent citizens. He animalizes this hypothetical artless population, therefore indicating that art is a core aspect of humanity. Farrel writes that “[w]hile this conversation is not meant to be taken entirely seriously, it does acknowledge the necessity of art in our lives” (87).

John draws out the core function of art, saying “[w]hen a man becomes a writer, I think he takes on a sacred obligation to produce beauty and enlightenment and comfort at top speed” (Vonnegut 231). Vonnegut explicitly relates the functions of art that are necessary for individual and societal health. The term enlightenment in this quote is important because it is something, unlike knowledge or data, that cannot be gained from empirical research. John’s claim that these things must be produced “at top speed” suggests that he feels society is in dire need for it, suggesting that the technocratic privileging of “productivity” is already beginning to threaten art. It also serves as a satire of the capitalist paradigm which values an ever-increasing rate of production.

Phillip and John seem to believe that their appreciation for art is different from the norm. Phillip initially proposes the hypothetical as a punishment for the *rest* of mankind until they “come to their senses.” Phillip uses “they” as a subject instead of “we” in the mad dogs line, indicating Phillip and John’s sense of deviance from the rest. Phillip and John’s sense of separation points to the fact that their consumerist and capitalistic society, clownishly mirrored by Papa Monzano, has begun to forget the importance of art.

While we see little enjoyment of art in *Oryx and Crake*, Angela’s flute accompaniment to Meade Lewis’ blues album invokes a deeply emotional response in John and Julian Castle in *Cat’s Cradle*. So touched by the music, John exclaims to Julian “my God — life! Who can understand even one minute of it?” (Vonnegut 182). Angela toys with the mechanical reproduction of Meade Lewis’ song as a means of expressing and understanding her complex emotions. In this touching moment, Vonnegut emphasizes the importance of artistic expression in the human experience. and how it enables the intrinsically human search for meaning in life. The mechanical reproduction of Lewis’ blues allows Angela to affix her own meaning to the piece. Indeed Farrell writes, “[t]hroughout the novel, Vonnegut emphasizes the importance of art in helping people find meaning in life” (87). This moment is far more impactful than an earlier moment in the novel when the woman in the bar says that scientists have long ago found the meaning of life in proteins. Vonnegut suggests that a merely scientific paradigm, which is becoming more normalized in a science-driven economy, ignores modes of expression and meaning-making which are integral to humanity.

The text includes several instances that show art in a state of decline. Newt writes to John that his father “didn’t read his mail or magazines or newspapers, either. I suppose he read a lot of technical journals, but to tell you the truth, I can’t remember my father reading

anything” (Vonnegut 10). Dr. Hoenikker serves as a satiric representative of scientific discourse being taken to the extreme, and one of the ramifications of this is a lack of interest in literature, interpersonal communication, and world events. One of the primary functions of art surrounds its capacity for instilling empathy, and while Dr. Hoenikker’s preoccupation with scientific inquiry make him forget to act as a father to his children, his disinterest in art also hinders him from developing empathetic traits.

Had he been more empathetic, he would not have been able to engage in such lighthearted play in the face of such tragedy on the day the bomb dropped. The string that Dr. Hoenikker makes the cat’s cradle out of actually reveals the vulnerability of art in Vonnegut’s society. It came from a manuscript that had arrived at the Hoenikker’s house in the mail. Newt writes to John, “Father took the string from around the manuscript of a novel that a man in prison had sent him” (Vonnegut 8). The juxtaposition between the novelist’s imprisonment and Dr. Hoenikker’s cushy Cape Cod life reiterates the disproportionate value this society gives to science and the isolation of those, like Jimmy in *Oryx and Crake*, who do not conform to this principle. The fact that a work of literature is merely bound by a little piece of string speaks to the weakness, the impotence of art in Vonnegut’s world. Angela later burns the book, string and all, to keep her siblings from what she views as trash (Vonnegut 10). Similarly, Newt throws his painting out of the window of his room at Casa Mona only moments after painting it (Vonnegut 169). The book’s lack of protective barrier and the two instances of destroyed art symbolize a greater threat to the durability of art in this society. Like in *Oryx and Crake*, the devaluation of art ultimately curbs the characters’ ability to express themselves and attain a sense of meaning in life.

The greatest example of this thwarted expression occurs in the anticlimactic ending of the novel in which Jonah fruitlessly climbs Mount McCabe to deliver a grand message.

John's fascination with Mount McCabe begins the first time he sees it in person.

Commenting on what he believes is the relative ease of accessing the peak he tells Frank,

“[m]aybe I'll climb it” (Vonnegut 211). This fascination grows with after the *ice-nine* apocalypse. Jonah writes:

I blurted out my dream of climbing Mount McCabe with some magnificent symbol and planting it there. I took my hands from the wheel for an instant to show [Newt] how empty of symbols they were. ‘But what in hell would the right symbol *be*, Newt?’ I grabbed the wheel again. ‘Here it is, the end of the world; and here I am, almost the very last man; and there it is, the highest mountain in sight. I know now what my *karass* has been up to, Newt. It's been working night and day for maybe half a million years to get me up to that mountain. I wagged my head and nearly wept. ‘But what, for the love of God, is supposed to be in my hands?’ (Vonnegut 285)

John's one desire at this point is to send a message, a “magnificent symbol” that will provide meaning to his life, to the state of the world. However, he lacks any idea of what to express or how to express it. He yearns desperately to make meaning and has no means to do so.

Perhaps this is why he marvels at Angela's music—at least she has a outlet to express herself through.

In what looks like a meaningful event, John meets Bokonon immediately after this confession. John approaches him, and Bokonon gives him a sheet of paper with the last sentence from *The Books of Bokonon*:

If I were a younger man, I would write a history of human stupidity; and I would climb to the top of Mount McCabe and lie down on my back with history for a pillow; and I would take from the ground some of the blue-white poison that makes statues of men; and I would make a statue of myself lying on my back, grinning horribly, and thumbing my nose at You-Know-Who. (Vonnegut 286)

This is the last sentence of the book. We never know if Jonah reaches the top of the mountain and delivers a message to whoever may remain alive. Vonnegut leaves the reader with a sense of unfinished business. Jonah in a way gets to express himself through writing *Cat's Cradle*, but in the world of the text, he—like Snowman—has no audience to read it.

This failure to deliver a message is made all the more absurd when one considers the opening line of the novel “Call me Jonah” (Vonnegut 1). In the book of Jonah, God sends Jonah to send a message to the Ninevites upon a mountain about their wickedness and the destructive punishment God has in store for them. Vonnegut constructs Jonah's identity on his failure to deliver a message through this ironic naming. This opening line also references the opening to *Moby Dick*—“Call me Ishmael.” Farrell writes “[I]like the narrator of *Cat's Cradle*, Ishmael in Melville's novel is an outsider, a wanderer who witnesses great destruction and survives to tell the tale” (86). Perhaps the more important resonance between Jonah's trajectory and the plot of *Moby Dick* involves Jonah's shared obsession with Ahab for the unattainable. Ahab seeks to exact revenge and conquer the white whale, while John seeks to conquer Mount McCabe and send a great message of cathartic meaning. These similarities become blatant when John describes Mount McCabe, writing, “[i]t was a fearful hump, a blue whale, with one clear stone plug on its back for its peak” (210). Equating Mount McCabe—and its meaning for Jonah—with *Moby Dick*, Vonnegut suggests that Jonah's attempt to send a message of meaning, prophet-like, to the world is ultimately futile.

Many scholars writing on Vonnegut and *Cat's Cradle*, such as Neil Easterbrook and Zoltan Abadi-Nagy, have used these moments in the text to demonstrate how Vonnegut's thought seems to predict the impulses of poststructuralism, which at the time was in its infancy. He criticizes grand narratives—from Religion to Reason to Progress—and

frequently reminds his readers of the looseness of meaning, a markedly deconstructionist move. However, it is also important to use this example to consider the material realities of the characters in these worlds. Indeed, it is the spread of bio-scientific weapon technology that leaves Jonah and Snowman with no audience with which to communicate. Their capacity for expression and meaning-making is minimized by the destruction of their community. Like in *Oryx and Crake*, the apocalypse in *Cat's Cradle* is the final culmination of an already-occurring process. The technocratic society in *Cat's Cradle* was already in the process of curbing expression.

That being said, a crucial distinction emerges between the message in Vonnegut's satire and Atwood's techno-allegory. Jimmy/Snowman's story is being told by an omniscient narrator whereas John/Jonah writes *Cat's Cradle*. There is a certain agency in Jonah which Snowman is not given. Though Jonah has no audience, he is able to tell his story. Snowman's language is fractured; words, phrases, and advertisements from his past replay with little control from Snowman. Jonah is allowed self-expression, to make his own meaning out of the events so far out of his control. Vonnegut's brand of post-structuralism frees the individual to create their own meaning by taking the authority from grand narratives. Bokonon's final gesture acts as a rebellion against God, the superhuman symbol of extrapersonal authority. In Bokonon's gesture and Jonah's creative expression, Vonnegut shows that even when greater forces determine the trajectory of one's life, one can respond to them and make them significant in their own individual way. Atwood's novel shows the subject's destruction by society even when its object-form—Snowman's body—continues to live. Again, a comparison between the two works reveals a greater sense of hopelessness in Atwood's work than in Vonnegut's.

One of the purposes of this thesis was to historicize this despair(ity) between the two texts. Snowman is not only losing the words with which to express himself, but his deeply cynical attitude hinders him from making any sort of positive meaning from his experiences. Jimmy/Snowman is a dynamic character. His memories from childhood portray him as an inquisitive kid with an atypical love for language and interest in the lives of animals. However, his mother's abandonment, his social isolation, his best friend's betrayal, and his lover's murder harden Jimmy/Snowman. As this chapter has shown, all of these events are encouraged by elements of Atwood's highly scientific and capitalistic society. Therefore, the novel suggests that the economic and cultural realities of this world make it impossible for Snowman to garner some sense of personal meaning with which to protect himself from his dark post-apocalyptic reality.

This difference between Atwood's and Vonnegut's outlooks, I argue, stems less from differences in the authors' perspective and more from the realities of the epochs in which they are writing. The divisions of wealth in Atwood's era are much greater than in Vonnegut's. The instruments of violence are more diverse and widespread. The will of corporations is increasingly reflected in the legislative body. The proliferation of information and advertisements in the millennium dwarfs that of Vonnegut's era. All of these realities are used to control the population. Atwood thus prophesizes a world in which the corporate body has such control over the individual that Snowman is rendered incapable of even creating his own personal meaning in life.

Though Atwood appears to have no faith in the preservation of human society, she has faith in the preservation of human biology. As mentioned before, Crake designs the Crakers to have little to no understanding of symbolic thinking. At first, Snowman must

speak to them in very plain, literal language; metaphoric language confuses them. Crake does this in part because he believes symbolic thinking leads to the establishment of hierarchy and religion, systems Crake blames for violence and oppression (Atwood 293). Additionally, he designs them in this fashion because he has no appreciation for any kind of knowledge outside of the empirical (Atwood 167). Crake carefully selects the Crakers' genes so that any element of spirituality would be eliminated. In this regard Crake shares the presumptions of several scientists in the real world. In *The Creation of Inequality: How Our Prehistoric Ancestors Set the Stage for Monarchy, Slavery and Empire*. Kent Flanney and Joyce Marcus write, “[a] number of biologists and psychologists...have concluded that religion might have a genetic basis” (68). These scientists and Crake greatly overestimate the biological determinations of culture.

More than likely, Crake and the real world scientists' faith in genes to determine behavior stems from the cultural narrative applied to DNA in the mid-twentieth century. At this time, DNA replaces blood as the metaphor for life and identity. Trying to define DNA to the public, scientists choose various metaphors ranging from a code, recipe, blueprint, alphabet, and digital language. These analogies often build upon and inform one another so that one scientist may use several in one speech. The biological reality of DNA is soon replaced by these metaphors, framing DNA as a text, a generative text that creates a whole and reproduces itself eternally. This paradigm conflates DNA, a biological element of the human, with the superhuman. This narrative produces, “a way of thinking about DNA genes as building blocks of meaning and as constituents of a meaningful organization that tends toward something grander—a history, a plan, even a metaphysics that renders DNA not only the ‘secret of life’ but also the secret of Life” (Roof 101). Through this narrative science

transcends into religion. Therefore, when I speak of Crake's faith in genetics, the religious connotation of faith—of trust in the existence of God without empirical evidence—applies.

Indeed, scientists still do not know *how* genotypes translates into phenotypes, the observable characteristics of an individual. The lack of knowledge on this front leads to descriptions of DNA as a “spectacular point of self-contained miracle” (Roof 86). Roof humorously mimics the totalizing logic espoused by scientists and then absorbed into broader culture: “DNA is what it is because it is what it is, and it is what it is somehow instantly, completely, overwhelmingly” (86). Here the depiction of DNA directly reflects the primary component of religion outlined by Flanney and Marcus, “the *ultimate sacred propositions*, beliefs considered irrefutable despite the fact that there is no empirical evidence to support them” (69). The self-contained truth to DNA is the ultimate sacred proposition, a proposition which Crake unerringly believes in.

This is particularly ironic given Crake's near constant belittling of spirituality. He succumbs to the practice he finds most intolerable, revealing the gaps in his logic through his incredibly human tendency to mythologize. Crake's dismissal of spirituality mirrors that of the scientists mentioned in Flanney and Marcus's piece. They write that “many Western scientists cannot believe that people as pragmatic as hunters and gatherers would invest their energy in something as irrational as belief in the sacred” (Flanney and Marcus 68). This quote demonstrates how pragmatism has been defined with its supposed opposite relation to spirituality, a view sewn into the very organization of the Compound.

However, as humanoid beings, the Crakers' capacity for symbolic thinking exceeds Crake's plans. When Snowman temporarily leaves the Crakers, they create a scarecrow-like Snowman to stand in his place. When the Crakers learn that Snowman needs fish to survive,

an anomaly to the herbivore humanoids, they associate Snowman's eating of the fish with ritual. They bring him the fish, and he tells them a story about the before. They thus create symbols and rituals despite Crake's careful design. Crake's failure was predicted by anthropologists. Concerning the scientists's belief that spirituality can have a genetic basis, they respond, "anthropologists are skeptical about the existence of genes for religion" (68). These anthropologists have shown through many studies how a concept of the sacred could result from logic. Thus Crake's conception of spirituality and logic as mutually exclusive is misguided. Had this been revealed to Crake, it would, with certainty, have challenged his entire sense of identity.

This is perhaps the one hopeful element of the novel. These aspects of humanity that were being snuffed out by a scientific and consumerist society persist. The Crakers may be posthuman, but the human capacity for symbolic thinking remains. While this capacity may be the reason for "the leaders and the led...the tyrants and the slaves....the massacres" (Atwood 155), it is also what lies behind poetry, geometry, gift-giving, music-making, sculpture, and sacrifice, and storytelling. While society in *Oryx and Crake* oppresses most in favor of the few, Crake's science fails to wipe out some intrinsically human aspects in the Crakers—a small testament, perhaps, to the longevity of the human spirit.

## Final Thoughts

“Based on the factual record I have put forward, I am announcing today that we cannot and will not make this certification. We will not continue down a path whose predictable conclusion is more violence, more terror and the very real threat of... nuclear breakout” (Borger). Without the telling evidence of Trump’s rhetoric—such as his constant appeal to the truth value of his claims seen here in his inclusion of the “factual record,”—one might think this quote came from the Cold War Era. In this speech, given in October 2017, President Trump threatens to nullify the 2015 Iran nuclear deal if further limitations on Iran’s nuclear program are not put in place. Trump’s zeal in restricting Iran’s ability to create nuclear weapons comes at the same time as Kim Jong-un, North Korea’s leader, tests his nuclear warheads and threatens to attack the United States.

As international tensions rise, Hillary Clinton tells CNN “we will now have an arms race –a nuclear arms race in East Asia” (Associated Press ). This weapons-related international conflict, and the unease brewing in the United States and elsewhere regarding physical and ideological threats, certainly looks like a millennial reiteration of the Cold War. This project examined the trajectory of societal fears concerning technology largely born in the Cold War era. It traced how these fears shifted from nuclear weapons that threaten human existence to biotechnologies that threaten *the nature* of human existence. It detailed a linear progression of the technocratic reach from the 1960’s to the early 2000’s. However, in light of recent cultural trends, it is clear that these social fears are not also linear, but cyclical.

Trump’s speech serves as a reminder that the fears driving the Cold War have noticeably resurfaced, and that the state’s response to this fear has followed the Cold War Trend. Trump raises up technology as a tool for the governmental maintenance of national

prestige. Attempting to control the research, production, and dissemination of technologies both inside and outside the borders of the United States, Trump participates in a decades-long trend of technology-mediated power play. If the Cold War saw the birth of technocracy, this new iteration of the Cold War sees its amplification. The number of countries with nuclear weapons and other destructive armaments has increased since the Cold War, as has the number of countries the United States perceives as a threat.

Atwood places *Oryx and Crake* in the near future, pushing the reader to question what elements of present have contributed to theirs. This practice of speculation can seem just as futile as John and Snowman's backward-looking gaze. However, if this project is any evidence, there are things to be learned from analyzing the past and speculating about the future. A few questions thus emerge when considering our present, Vonnegut's depiction of the past, and Atwood's narrative about the future. If technocracy solidifies in the Cold War and if it grows and mutates under the new heights of consumerism, are we setting the stage for a new technocracy, even greater in scope? Can this new Cold War and internet-age hyper-consumerism usher in a new technocracy that widens the divisions of wealth, heightens individual alienation, damage and mutate bodies, and devalues creative expression? Will someone writing a thesis fifty years from now point to our gruesome now and say "there, that's where it happened"?

Or is there, perhaps, a new political, economic, and social reality forming that exists outside the parameters of technocracy? For example, does the banking industry wield more power than the technology industry? What would happen if that power grew? Could the one percent become .01 percent? How would that change the way we organize the country? These kinds of questions are what Atwood and Vonnegut propose in their speculative works

of science fiction. And these are the kinds of questions their work encourages us, as citizens, as writers, as voices, to ask as well.

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## **Vita**

Julia Logan Lindsay was born in Durham, North Carolina, to William and Myra Lindsay. She graduated from Cary High in May 2012. The following autumn, she entered Appalachian State University to study English, and in May 2016 she was awarded the Bachelor of Arts degree. In the fall of 2016, she continued her education in English at Appalachian State. She accepted a research assistantship and began working toward a Master of Arts degree. She was granted the M.A in May 2018. In August 2018, she commenced work toward her Ph.D. in Contemporary American Literature at the University of Georgia.