BIOTECH ANIMALS, ETHICS, AND CARE APPROACHES IN CONTEMPORARY SCIENCE FICTION

MONICA SOUSA

A DISSERTATION SUBMITTED TO

THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN ENGLISH

YORK UNIVERSITY

TORONTO, ONTARIO

August 2024

Abstract

Biotech Animals, Ethics, and Care Approaches in Contemporary Science Fiction contributes to the growing body of works focused on animal studies and science fiction by exploring its connections with biotechnological practices and an animal ethics of care theoretical framework. With a focus on what I choose to call "biotech animals" (which may include animals genetically engineered/modified or animal cyborgs with robotic/cybernetic bodily attachments or enhancements), I explore how contemporary science fiction represents the ethical treatment of these altered animals, particularly after their creation. By tracing out these discussions, I examine how my contemporary focal texts reveal the capacities of the reader/audience to question what caring relations between humans and biotech animals could look like if humans acknowledged both their responsibility and their obligation towards their creations. The analytical chapters of my dissertation examine Margaret Atwood's *MaddAddam* trilogy (2003-2013), Bong Joon-ho's *Okja* (2017), Kirstin's Bakis's *Lives of the Monster Dogs* (1997), Grant Morrison and Frank Quitely's *We3* (2004), Pat Murphy's "Rachel in Love" (1987), Emma Geen's *The Many Selves of Katherine North* (2016), Dean Koontz's *Watchers* (1987), and Jeff Vandermeer's *Borne* (2017). There are key questions that shape my analysis. What does care look like when applied to biotech animals? How do these texts depict, in various ways, processes that do not suggest a caring framework? In what scenarios are they complicated? Additionally, my dissertation explores the influential role of science fiction in demonstrating that the way we relate to caring relations are often easily affected by biocapitalism and other similar forms of human control. In doing so, my dissertation also draws attention to how these fictional works can draw attention to alternate ways of relating to biotech animals that subvert anthropocentrism while still holding on to core care values, suggesting a need to consider a philosophical posthumanism mindset that removes the human from the center of all ethical consideration.

Dedication:

This dissertation is dedicated to my partner, Jacob Millar, who has been with me from the beginning of my doctoral degree. His unwavering patience, love, and compassion continuously provided me with the strength and confidence I constantly needed throughout this long journey.

And to my cats, Perseus and Athena, who Jacob and I adopted about a year into starting my PhD. A huge, warm thanks to them both for the cuddles, the laughs, the shenanigans, and for making mine (and Jacob's) life more complete. I hope to continue learning more about them as the years go on and more about being the most caring companion that I can be.

And to the many animals I shared living spaces with as a kid growing up. I did not come from the most protective and caring homelife, and I truly feel that my animal companions must have often felt the same way – I wish your lives could have been better. This upbringing is a large part of why I grew up to value compassion and care in the first place, and how I came to recognize the importance of extending these values toward our sentient nonhuman neighbours.

Acknowledgements:

I am incredibly grateful to my dissertation committee members Dr. Allan Weiss, Dr. Marcus Boon, and Dr. Steven Bailey for all their guidance and feedback throughout my writing process which has helped bring this dissertation to fruition. I am thankful as well to Dr. Jody Berland, who sat on my committee for much of the process, for her feedback and suggestions throughout that helped me rethink some key areas in my project. I am especially appreciative of the support of my supervisor, Allan Weiss, for his countless hours of reading and rereading several drafts and for his gracious patience throughout. I should also mention his "Grammar Man" related critiques, which allowed me to transform many rougher, unpolished early drafts into more refined works; thank you for helping me shape my writing into the best it can be. I am also appreciative of all the time he spent with me in his office hours and Zoom meetings discussing my project, my concerns, and his help in guiding me through the bumps along the way.

I also want to extend a special and big thanks to my students in EN 4005: Literature and Animals. In the Fall semester of 2023, I had the greatest opportunity in designing and teaching my own 4th year level English course. A few of the texts on the syllabus were some of my dissertation's focal texts. Every week, my students continued to delight and inspire me with their astute observations on the course texts and their genuine enthusiasm for reading about animals in literature. Furthermore, I taught this course when I was reaching the end of my dissertation writing process, and the continuous enlightening discussions with my students about animals and literature helped me keep my spark and passion for this project alive and burning. I could not have asked for a better group of students.

My heartfelt thanks to my partner, Jacob Millar. This long journey would have undoubtedly been so much harder without his love and undying faith in me, even during the moments of my lowest confidence.

And, of course, to my cat companions, Perseus and Athena! After all, when it comes to writing about animals, what is more inspiring than having the privilege of being alongside them?

Table of Contents:

Introduction

In the spring of 2000, contemporary artist Eduardo Kac introduced the world to one of his artistic works: Alba, a genetically modified "glowing" rabbit. Kac worked in collaboration with French geneticist Louis-Marie Houdebine to produce this rabbit spliced with the Green Fluorescent Protein (GFP) gene, found in the jellyfish *Aequorea Victoria*, for the "GFP Bunny" project. This gene fluoresces green when exposed to blue light.[1] While Alba was created as an artistic work, she was also supposed to be used for social commentary. The GFP Bunny project was to include a public debate about the ethics of manipulating genes in animals. Kac elaborates on these intentions on his website: "As a transgenic artist, I am not interested in the creation of genetic objects, but on the invention of transgenic social subjects. In other words, what is important is the completely integrated process of creating the bunny, bringing her to society at large, and providing her with a loving, caring, and nurturing environment in which she can grow safe and healthy" (Kac, "GFP Bunny"). Yet, despite this assertion and his insistence that Alba would be provided with a "loving, caring, and nurturing environment", she died two years later. Houdebine did not have much detail to provide about Alba's death, other than she died "without any reason" (Philipkoski, "RIP: Alba, the Glowing Bunny"). Alba died before the public debate could take place.

While Alba was, allegedly, unharmed during her creation as a GFP bunny, we also do not know if she was indeed provided with a "loving, caring, and nurturing environment" as Kac insisted. Furthermore, animal-focused artist Steve Baker argues that Kac misses the point. Baker states that Kac "engages with the animal through techniques that strike many people as

[1] While Kac claimed that Alba's whole body glowed green, others believe that the photos of Alba with a glowing green body were fabricated.

meddlesome, invasive, and profoundly unethical" (29). Ultimately, Baker believes that Kac's work reproduces an entire set of scientific research practices that subject millions of animals to experimentation – more often harmful than not. Indeed, Alba reproduces and advances countless biotechnological practices performed by humans on unwilling animals.

Humans have a long history of refashioning and manipulating animal bodies for their own purposes and preferences. Animal breeding is one common and prominent example of this. Consider the domestic dog, the product of selective breeding over millennia, who now bears very little resemblance to its ancestor (the grey wolf). However, with traditional animal breeding, the animal's genes are manipulated indirectly, through the process of selective mating or engineering animals with desirable genetic traits. Genetic engineering is the *direct* manipulation of an organism's genes. As science journalist Emily Anthes points out, "It took thousands of years to turn wolves into dogs. Now we can create novel organisms in years, months, even days" (6). As biotechnology advances, humans are given the tools and the power to modify or engineer new animals in profound new ways. Biotechnology is used on animals for many reasons: food production, xenotransplantation, artistic purposes, aesthetic purposes, and warfare are a few common examples.

At one point, however, the idea of engineering or modifying an animal into something new did belong, almost exclusively, to the pages of science fiction. The core texts that I focus on in my dissertation come after and follow in the tradition of three important works of science fiction that focus on animals and/or animality and technology: Mary Shelley's *Frankenstein* (1818), H.G. Wells' *The Island of Doctor Moreau* (1896), and *Do Androids Dream of Electric Sheep?* (1968) by Phillip K. Dick. These three novels offer ethical discussions of biopower and control and explore the human's ethical responsibility towards their nonhuman or hybrid

creations. As Joan Gordon notes in her discussion of animals and science fiction, "one history of sf is the story of the end of 'Man' as the unique human(ist) subject. Many sf stories … are also about the uncanny processes of denaturalization through which we come to experience ourselves as subjects-in-technoculture" (270). She notes that Shelley's, Wells', and Dick's texts are examples that demonstrate how "technoscience is making us strange to ourselves" (270).

Frankenstein is a prime example of the ways in which technoscience offers us this strangeness. Shelley's novel can easily be credited as popularizing the character of the "mad scientist" – a morally blind, ego-driven scientist who gives little thought to the consequences of his abnormal, animated creations or to his ethical responsibilities over his creations. These creations are often strange hybrids that suggest hints or traces of both human beings and animals. Today, *Frankenstein* undertones persistently spread throughout popular culture in narratives and discourses that underline the dangers of God-like scientists. *Frankenstein* references are not uncommon in headlines when scientists announce a new method for engineering or manipulating life. In the words of Sherryl Vint, "Public understandings of science are often filtered through popular culture: journalists treat genre fiction as a repository of shorthand ways to describe new discoveries or inventions, and with increasing frequency, one sees headlines or advertisements that frame their content as an example of the world becoming like (what was once found only in) speculative fiction" (2021, 7). A key example of this is the prefix "Franken", traced back to *Frankenstein*, to refer to a frightening or strange hybrid. For example, "Frankenfood" is a slang term that describes various types of genetically modified food products that have been created through bioengineering.

Much like how *Frankenstein* explores fears of the degeneration of humanity, H. G. Wells's *The Island of Doctor Moreau* adopts the Frankensteinian "mad scientist" who is left to

deal with the consequences of treating his creations without any compassion. Wells' novel is an early example of uplift, a science fiction motif that appears in many of my core texts. Uplift is a term referring to a development process undertaken by humans to transform a certain species of animals into what they consider to be *more* intelligent beings. Similar to Victor Frankenstein, Dr. Moreau exemplifies the ongoing hubris of Western society with scientists who argue for practices that enable humans to tame and manipulate nature. This ability is supposed to be void of any sentimental or emotional attachment influencing their ethical concerns, opting instead for an objective, distant approach that values scientific discovery above all else.

Dick's dystopian novel *Do Androids Dream of Electric Sheep*? also focuses on animals and technology to offer readers ways to rethink who is deserving of ethical treatment. In the many, after the devastation of a nuclear war, many humans have abandoned Earth for extraterrestrial colonies. The humans left on Earth co-inhabit the planet with androids and most live animals are greatly endangered or extinct. On this reimagined Earth, the marker for a human possessing empathy is their compassionate attitudes towards animals and whether they own a pet – preferably a biological animal rather than an *electric* imitation of one, which are also available for purchase. While many scholars have looked at the importance of extending empathy towards the androids, some scholars are also interested in exploring the novel's emphasis on the importance of animals. Ursula Heise, for example, explains that "the imaginative exploration of artificial animals" is underlined by "the question of how much nature we can do without, to what extent simulations of nature can replace the 'natural,' and what role animals, both natural and artificial, play in our self-definition as humans" (60). Similarly, Vint argues that another important aspect of the novel is "the importance of animals, electric and real" ("Animals and Animality"… 112). She seems to indirectly address Heiss's latter question on the role of animals,

as she argues that both the organic and the electric animals ask of humans to reconsider other ways of "being in the world" and that "This way resists commodification in our relations with one another and with nature to produce a better future, one in which humans might be fully human once again by repairing our social relations with animals and nature" (Vint 125).

While the idea of a rabbit like Alba with a body that can glow green may just sound like the writings of science fiction, and not real life, this could not be further from the truth. Since the late 1920s, scientists have been creating transgenic animals, ranging from different mammals, to fish, insects, and birds. Animals other than rabbits that have been exposed to Green Florescent Protein, including cats and fish. Currently, pigs are often considered the best candidates for xenotransplantation (the transplantation of living cells, tissues, or organs from one species to another), which echoes the imaginings of Margaret Atwood and her 2003 novel *Oryx and Crake,* where pigs are genetically engineered to produce organs for human transplants. Animal bodies have also been engineered or modified in other advanced ways by biotechnology, ranging from animal clones, such as Dolly the sheep, to cyborg animals or "remote-controlled animals", such as the RoboRoach, a wirelessly controlled cockroach developed by Backyard Brains.

My dissertation focuses on what I am referring to as "biotech animals" – which may include animal cyborgs with cybernetic/robotic bodily attachments or enhancements, or animals genetically engineered/modified or produced through other forms of biotechnology – and how they are represented and treated in contemporary science fiction. In my dissertation, contemporary science fiction includes works published in the second half of the 20th century and the 21st century. My project primarily investigates how science fiction represents the ethical treatment of biotech animals before and after their production. While I examine the power and control that is evident during their creation and consider their problematic origins, I am

particularly interested in centring the discussion on how they are treated after their creation. There are many works of scholarship that question the ethics of using biotechnological methods to engineer and modify animal bodies. While this discussion is important and will certainly be addressed, I am primarily interested in asking how authors of science fiction texts suggest what could be done with these creatures or how they could be treated now that they are here. While science fiction works focused on biotech animals can draw our attention to the ethical implications and potentialities of producing them, rather than *only* warning us against this practice (or at times condoning it), the genre can also encourage audiences to consider how we choose to treat them in the aftermath. My project examines the work of eight creators (seven authors and 1 film director), spanning from the late 1980s to the late 2010s, and argues that through their suggestions for the importance of caring relations, they generate a space for readers/audiences to take a step back from ingrained anthropocentric biases that serve to express and exploit nonhumans that are positioned as "Other".

My thesis argues that authors of contemporary works of science fiction can attempt to allow readers/audiences to question what caring relations between humans and sentient biotech animals could look like if one were to take seriously the question of human responsibility and obligation towards their creations. My project considers key questions: Is such an acknowledgement enough to cultivate a caring relation? What does such care look like? How do these texts depict, in various ways, processes that do not suggest a caring frame? In what scenarios are they complicated? Additionally, my thesis explores the genre's influential role in demonstrating that the way we relate to caring relations are often easily affected by biocapitalism and other similar forms of human control. Furthermore, what unites each of my primary texts and my core argument is a reminder that biotech animals have a significant connection to sentience;

most of the biotech animals in my core texts are indeed sentient, or they are representative of animals that are. I argue that what is implied in all of these texts is that humanity's willingness and inclination to care for a biotech animal should be – and often is – motivated by a recognition of their sentience, which can be understood as "the capacity of an individual organism to sense and feel things and to have subjective experiences of those sensations and feelings" (Calarco 121). In many debates in animal ethics, there is a question of whether pain and pleasure can be included in those sensations and feelings. However, many scientists today agree that all vertebrate animals, at the very least, are sentient. While one may be inclined to see an entity altered or engineered by technology as primarily machinic and, thus, unfeeling and lacking in subjectivity, I argue that the authors of my core texts attempt to demonstrate how this is not necessarily the case.

In my consideration of what such a caring treatment might look like, I look at how the genre's representation of biotech animals can be read through animal ethics of care approaches that strive to be non-anthropocentric. Anthropocentrism is the belief that humankind is the most important element of existence, and that nonhumans can and should be used as means for human ends. This dissertation asks us to consider what it would mean if humans – especially those who have access to a position of power that allows them to oppress and/or exploit – instead tried to channel non-anthropocentric motives and behaviours. A non-anthropocentric outlook rejects the idea that humans always must be at the center of ethical consideration, and it recognizes the mutually beneficial relationships that humans have with nonhumans.

In popular culture, science fiction is prominent in many media forms. This is why I examine texts from a range of different media as case studies for analysis. While most of the texts are novels, I also look at a film, a graphic novel, and a novelette. The core texts I focus on

(listed here in order of publication) are Pat Murphy's "Rachel in Love" (1987), Dean Koontz's *Watchers* (1987), Kirstin's Bakis's *Lives of the Monster Dogs* (1997), Margaret Atwood's *MaddAddam* trilogy (2003-2013), Grant Morrison and Frank Quitely's *We3* (2004), Emma Geen's *The Many Selves of Katherine North* (2016), Bong Joon-ho's *Okja* (2017), and Jeff Vandermeer's *Borne* (2017). My choice to focus on these texts is based on their range of dates (from the late 1980s to the late 2010s), and the shared features that these texts possess, namely a preoccupation with close relationships and encounters between humans and biotech animals, the complex biopolitical intersections of human and animal bodies and technologies, and a choice to acknowledge the potentiality for hope and change when it comes humanity's future relations with biotech animals.

These texts indeed offer, on the one hand, rather grim conceptions of the futures and disheartening realities about how we currently approach animals and biotechnology. However, my decision to choose these texts is largely based on my argument that these texts are *also* not without spaces for hope and the potential for adaptation. I would argue that the latter is what the authors attempt to put into focus. Drawing attention to how caring relations are represented in science fiction reveals the genre's ability to outline equitable approaches, considerate and adaptable connections between a plurality of beings, and the importance of attentiveness to the mutual vulnerability between our human selves and our sentient animal planetary neighbours.

While I chose these texts because of their fruitful critique towards the technological manipulation of animals, I am especially interested in how they allow us to think about how to ethically engage with animals in the aftermath of technological manipulation. While these works certainly highlight the oppressive origins and possible disastrous effects of biotechnologies, I argue that their authors are also concerned with the ethical treatment of nonhuman animals and

the obligation of the humans who practice or condone such biotechnologies that directly exploit them. I argue that the authors of these texts, through the attention they give to power and systemic control over animal bodies, demonstrate the author's interests in encouraging their audience to reconsider and evaluate the ethical treatment that humans extend towards biotech animals. Specifically, the genre can inspire readers/audiences to recognize the importance of caring for and caring about these animals. As I will later explain, this importance is best outlined through flexible animal ethics of care approaches that may also be attentive to scenarios that call for virtues that are typically emphasized in *justice*-based ethics. This project's engagement with animal care ethics, when applicable, also brings into conversation scholars working in posthumanism.

Before I explain my reason for focusing on science fiction, let us first consider fiction narratives in general. In fiction, imagination and emotion are key to providing abstract and speculative concepts with wisdom and depth. Fiction in the arts (in many forms of media, be it novels, short stories, films, etc.) can certainly be interpreted as thought experiments, but imagination is vital in order to think or rethink the world through a certain set of ideas and concepts. Martha Nussbaum's theory of "the narrative imagination" (or sometimes referred to as "the literary imagination") argues that fiction enriches the cognitive and emotional capacities of the reader for making ethical and moral decisions. Nussbaum states that "Citizens cannot relate well to the complex world around them by factual knowledge and logic alone" (95, 2010). Because of this limitation, our most efficient ability is our narrative imagination. When considering literature, Nussbaum suggests that we ask, "not only how the characters feel and imagine, but what sort of feeling and imagining is enacted in the telling of the story itself" (4, 1997). I would argue that Nussbaum's theories can also be extended to fiction in many forms of

media, such as film. Ultimately, fiction can cultivate both an emotional and educated perspective that cause us to make these judgements with care. These judgements with care are not necessarily limited to how we view our fellow humans; they can also extend towards animals.

The genre I focus on in this dissertation is science fiction. As Allan Weiss explains in his discussion of fantastic literature, there is an "ongoing problem in the field" (Weiss 8) when it comes to terminology; the problem typically concerns the labels of "science fiction" and "speculative fiction". As Weiss explains, the fantastic, as a larger category, can be split into two broad genres: speculative fiction and fantasy. Speculative fiction "foreground[s] political, social, scientific, technological, and philosophical concepts" (12). Fantasy does not speculate in the same way genres fitting the category of speculative fiction (such as science fiction) do. Fantasy does not ask "What if there were dragons?" but instead "presents a world in which dragons are real and even a given" (Weiss 12). The texts that I look at offer some sort of scientific explanation. In this dissertation, science fiction can be understood as a genre where "the fantastic elements are explainable by the operation of natural laws as revealed by science, and developments in technology" (13).

When considering the genre's backgrounds, it is important to draw attention to how it has traditionally been viewed as a puritanical genre angled toward a male readership, as a genre by men and for men. Even though the genre of science fiction can be traced back to works by women (like *Frankenstein*), it is generally perceived as male dominated (Chakraborty 932). In fact, women writers in the genre were not properly recognized until the later half of the 20th century, and many wrote under male pseudonyms in the early and mid 20th century. With my core texts I have aimed to have a balance between female and male authors. This also plays a part into why I chose some of my core texts. While some of the texts may be obscure (for

example, the works by Kirstin Bakis, Pat Murphy, and Emma Geen), it is important to me to include the voices of women in the genre. Furthermore, many 20th century and older works of science fiction underestimate women, not representing them in a strong leading roles, or only presenting them in nurturing or passive roles rather than experts in their fields. My core texts provide a range of female characters, from women who take on a caring role, to women who are scientists/working in science, to women who encompass both.

I choose to focus on science fiction partially because of availability – representations of animals engineered/modified through biotechnology lend themselves well to science fiction rather than realist fiction. Also, while often excluded from categories of "literary fiction," science fiction is a fruitful genre for creating spaces and moments for reevaluating and reimagining to happen, especially in terms of how biocapitalist practices intersect with major biotechnological advances and human interactions with biotech animals. I would also argue that there is a continued need for scholarship in the field in terms of how the genre is responding to ongoing cultural debates about technoscience and animals. This scholarship can outline the space the genre offers to question and challenge many cultural and ethical norms and biases when it comes to humans and animal relations. This is especially the case when ways of being in the world are reconstructed. As Neil Badmington observes, science fiction sees "bodies, minds, desires, limits, knowledge, and being itself reimagined in ways for which traditional anthropocentrism cannot possibly account" (375). I also argue that the genre can suggest methods of accepting other ways of being and can help strengthen emotional responses.

As Sherryl Vint explains in *Animal Alterity*, both science fiction and human-animal studies "are interested in foundational questions about the nature of human existence and sociality" and "take seriously the question of what it means to communicate with a being whose

embodied, communicative, emotional and cultural life … is radically different from our own" (1). Vint notes that our conception of what it means to be human is highly dependent on a human-animal binary, separating ourselves from our own animal status. She observes that science fiction is the best genre to challenge this binary because "its generic premises enable us to imagine the animal quite literally looking at and addressing us from a non-anthropocentric perspective" (5-6).

Science fiction can teach us to embrace both non-anthropocentric and non-technophobic (albeit *cautionary*) responses. The need for this perspective is evident because while some people may be willing to show care or respect towards non-biotech animals or technologically modified humans (such as humans with robotic prosthetics), to many people the intermingling of animals and machinic technology may still be *especially* unsettling or "monstrous". One reason for this unease is that both animals and machines are traditionally seen as separate from humanist constructions regarding the human condition, and so directly connecting the two can lead to even further feelings of abject horror. It is also a human tendency to fear the unknown; they may, then, be inclined to fear animals and advanced technology more than they fear their own human capabilities. Also, what causes this reaction is likely also tied to the purposes they were created for – for example, animal cyborgs that are created for aiding in warfare or other violent military practices. The act of playing with life or "playing God" is unsettling for many people. This is why, in the words of Bruno Latour, alluding to *Frankenstein*, "We confuse the monster for its creator and blame our sins against Nature upon our creations" (Latour). These biotech animals become a disturbing reminder of the unethical practices that humans are capable of when they wield excessive power and interfere with many forms of life. This specific focus on the treatment of biotech animals after they have been created, as well as human responsibility and possible

emotional responses in the wake of the animal exploitation, is still lacking in science fiction scholarship.

The anthropocentrism that is apparent when people – such as authors and readers/audience members – may care more about defining the status of a biotechnologically modified human than they do a biotech animal is another reason why this research is important. If presented with a human with advanced, machinic body modifications, one may easily be inclined to wonder "is this being still human?" They may also consider this question if presented with a human with a nonhuman organ transplant. Yet, what happens when they apply a similar question to an animal? If an animal has been genetically altered is that animal still an animal of that species? I argue that we do not often ask those questions about animals compared to the question "is the technologically altered human still human?" because we care more about defining the human – an act that already receives plenty of attention. If the answer to the question "is this being still human?" is "yes", it likely implies that they should have rights, and that they should be worthy of respect and ethical treatment. However, if a biotech animal does, indeed, equal animal, many people would not have that same automatic conclusion of "they are an animal, so of course they deserve respect". This imbalance indicates a need for us to further explore what it means to care for and care about animals, and how this care may be complicated when the biotech animal may, on one hand, seem fascinating and innovative to the observer, but on the other hand, even more abject than biologically "natural" animals. While the texts I will be examining in this dissertation draw important attention to the concerning and often unethical practice of engineering animals, other important readings of these texts allow us to recognize how they also encourage emotional care responses.

What is an animal?

To clarify my project, there is an important question for us to consider: what *is* an animal? In *What is an Animal?*, Tim Ingold refers to the major theme of the World Archeological Congress on "Cultural Attitudes to Animals"; this major theme was prefaced with an introductory session where contributors were asked to address this key question. Ingold was not surprised that this question spawned many kinds of answers. He notes that it was "the degree of passion aroused in the course of the discussion" (1) that was the most surprising. He further explains that this passion confirmed to him that "there is a strong emotional undercurrent to our ideas about animality" and that "to subject these ideas to critical scrutiny is to expose highly sensitive and largely unexplored aspects of the understanding of our own humanity" (1). When we ask the question "what is an animal?" we are also asking "what does the word animal mean?" – i.e., what is an animal as a tangible object, and how, exactly, do we use the word.

Let us focus on the latter question first. We see this highly sensitive aspect of cultural understandings of humanity when we consider the two contradictory ways the term "animal" is culturally used: on one hand, we may use the term as something "benign and inclusive of humanity" (Ingold 4), and, on the other hand, we may use it as something "negative and exclusive" (4) and as "stand[ing] for the unhuman, the antihuman" (Midgley 35). An example of the latter can be seen where you hear someone say, "you behaved like an animal". Stating that someone behaved like an animal implies that they acted without any moral or ethical sensibilities, characterizing the word to mean a depraved being.

Mary Midgely gives the history of the origins of the word "animal": "In Latin *animal* was used to translate the Greek word *zoim,* a living creature" (36). What is a living creature? If part of "living" or being alive involves thinking or feeling, French philosopher René Descartes would not see an animal as fully suiting the definition. According to Descartes' views of animals,

animals are “automata” and “void of reason”. Descartes believed animal behavior is solely explicable in terms of physical mechanisms. As he explains, “were there such machines exactly resembling organs and outward form an ape or any other irrational animal, we could have no means of knowing that they were in any respect of a different nature from these animals” (*Discourse on the Method)*.

In contrast with Descartes, in his work *The Animal that Therefore I Am,* Derrida explains that his work and the work of many other philosophers since Descartes are haunted by the question of the animal. He prefers to use the phrase “that which we call animal” instead of the simpler term “animal” to draw attention to the fact that “animal” is a word we use to separate nonhuman animals from the fact that we, too, biologically speaking, are animals. While humans give themselves this word, they are “according themselves, reserving for them, for humans, the right to the word, the name, the verb, the attribute, to a language of words, in short to the very thing that the others in question would be deprived of, those that are corralled within the grand territory of the beasts: the Animal” (32). Furthermore, the fact that we refer to all living species (excluding plants and bacteria) that are nonhuman as “animals” is absurd and reductive: “as if all nonhuman living things could be grouped without the common sense of this ‘commonplace,’ the Animal” (34). It is, at best, lazy and dismissive to lump together the cat and the beetle, the tiger and the parrot, and the elephant and the beaver – at worst, it is uncaring and/or uninterested.

On this note, let us consider the tangible, biological elements. As Ingold writes, “the question 'What is an animal?' is one of macrotaxonomy of distinguishing animals from the other major classes of life forms such as plants, fungi and bacteria” (2). The Oxford English Dictionary provides two definitions for the word “animal” as a noun. The first definition is sound and accurate: “a. A living organism which feeds on organic matter, typically having specialized

sense organs and a nervous system and able to respond rapidly to stimuli; any living creature, including man" (OED). The second definition explains, "In ordinary or non-technical use: any such living organism other than a human being." There is a note included under this definition: "Frequently applied specifically to a mammal, as opposed to a bird, reptile, fish, etc" (OED). Yet, humans, birds, reptiles, and fish, certainly all count under the first definition; they are all living organisms that fit within the biological kingdom of *animalia*.[2] This biological definition offered by the Oxford English Dictionary is what I work with in this dissertation.

Human beings are also animals. While nonhuman biotech animals are the focus of this dissertation, I am exploring human and nonhuman relations by considering what it means for humans to think in an ethical care mindset toward biotech animals. A meaningful consideration of these relations requires us to also come to terms with the animal within ourselves, which includes rejecting the idea that humans are inherently superior, recognizing our commonalities with nonhuman animals, and accepting the variety of differences between all animals in a way that encourages respectful curiosity rather than a debilitating fear.

Contextualizing Biotechnology and Animal Ethics of Care

Biotechnology:

As all my core texts will later demonstrate through their shared emphasis on depictions of life being separated from its embodied contexts, biotechnology continues to greatly affect Western political and societal relations. As Nadine Ehlers notes, in our contemporary age where opportunities arise through the intersection of bodies and technology, "life is open for

[2] Biologically speaking, kingdom animalia also breaks animals down into two types: vertebrates and invertebrates. Humans are vertebrates, because they have a backbone, while invertebrates do not. Vertebrates are further broken down into five classes: amphibians, birds, fish, mammals, and reptiles. Insects are an example of invertebrates (other examples including anemone, jellyfish, words, to name a few).

transformation and revisioning" (Ehlers 120). Life has become "increasingly technologized" (Ehlers 120). Ever since biotechnology has allowed for life to be seen through a molecular lens, organisms – human and nonhuman – have been open to change at the molecular level, which suggests that "there is nothing mystical or incomprehensible about our vitality—anything and everything appears, in principle, to be intelligible, and hence to be open to calculated interventions" (Rose 4). Humans intervene upon life through technological methods such as gene editing, gene splicing, or creating organisms with new gene sequences added or removed. Moreover, biotechnology offers more than just molecular alterations that affect life. Biotechnology also contributes tools of technologization that alter life by extending it or enhancing it, seen in examples such as artificial limbs/joints, dialysis, laser eye surgery, and cardiac pacemakers. While scientists have implemented many different biotechnological techniques and methods to alter human life, they have also introduced animals into their biotechnological practices, putting into motion a radical change of how to view animal life.

Biotechnology is a broad area of biology and technology, which involves the use of an organism's biological systems, their parts, or the living organism itself to create a new body, life, tool, or product. It can also be understood as "the use of biological organisms and processes to provide useful products in industry and medicine" (Morris xxii). The field continues to advance, for "[e]very day, newspaper articles claim a new application for biotechnology" (Morris xxii). While old biotechnologies include practices such as cheesemaking or brewing beer, "new biotechnologies are built on the explosion of discoveries … about how living things work" (Morris xxiii). "Biotech" is an amalgam of organic life and technology. How I use the term biotechnology and "biotech animal' is shaped and inspired by Anthes's observations of how biotechnology is shaping the future of animals in *Frankenstein's Cat: Cuddling Up to Biotech's*

Brave New Beasts. Anthes uses the term biotechnology in a broad way to encompass these examples of modified animals: transgenic animals, clones, animals undergone gene therapy, animals that have received advanced prosthetic attachments, and cyborg animals. Anthes does not limit herself to looking at animals that have been modified on the molecular level. In a 2013 interview with Breeanna Hare for CNN, Anthes expresses her interest in cyborgs as a particular experiment at the forefront of biotechnology: "I think a lot of the early work in biotechnology was manipulating biology and the genes that are already there. … the future in many ways is the mash-up of the living with the nonliving, the biotic with the a-biotic. … a growth of creatures that combine electronic bits and biological ones" (Hare).

In the contemporary science fiction works that my project explores, biotech animals include genetically engineered/modified animals, animal cyborgs, lab-grown animal bodies, and (a more speculative example not discussed by Anthes) animal bodies with a foreign consciousness uploaded to their brains.[3] We could argue that domesticated animals are also "biotech animals" in the sense that they have been subjected to breeding practices. However, my dissertation limits itself to looking at animals that are on the more recent, advanced, and extreme level on the scale of human manipulation. Accordingly, the intention of this section is not to give a comprehensive list of every example in the development of animals and biotechnology. Rather, I wish to give a brief overview of some notable examples of biotech animals.

The world's first transgenic animal was a mouse. In 1974, Rudolf Jaenisch and Beatrice Mintz created a transgenic mouse by injected retrovirus DNA into mouse embryos, demonstrating that leukemia DNA sequences had assimilated into the mouse genome and to its

[3] When relevant, I will begin at the start of my analysis chapters with a bit more detail on specific types of biotech animals (for example, in the following chapter I will offer more of an overview on biotech pigs). The goal for this section is to provide a more general, introductory overview.

offspring. Since then, genetically modified mice are commonly used for laboratory research on genes or human diseases (pigs are another common example).[4] Mice serve as easy models for research because their tissues and organs are similar to those of humans, and they carry almost all the same genes that operate in humans. The most common genetically modified mice are knockout mice, mice that have had existing genes inactivated or "knocked out", by replacing them or disrupting them with artificial pieces of DNA. Knockout mice have been used to study a variety of diseases and conditions, from heart disease, to obesity, to diabetes. Genetically modified mice are also the most common models in cancer research. In 1984, genetically modified mice were created that carried cloned oncogenes, a gene that predisposes them to developing cancer. The OncoMice, as this type of laboratory mouse is called, was the first mammal to be patented.

Genetically engineered animals are also created for commercialization and food consumption. In 2003, GloFish were released to the United States market, making them the first genetically modified animal to be commercialized. Much like Alba the rabbit, GloFish are fish (initially Zebra fish at first, but now include tetras, tiger barbs, and bettas), with GFP added, allowing them to glow in the dark under ultraviolet light. The GloFish currently come in a variety of vibrant colours, including "Electric Green", "Sunburst Orange", "Moonrise Pink", "Starfire Red", "Cosmic Blue", and "Galactic Purple." As Anthes observes, "Tweaking the genomes of our companions allows us to create a pet that fulfils virtually any desire – some practical, some decidedly not" (21). Arguably more practical than animals that glow in the dark, a company called Felix Pets is attempting to genetically engineer cats that are missing the *Fel d 1*

[4] Pigs are also a convenient model in biomedical research. I will discuss biotech pigs a little further in Chapter 2, in connection with my discussion of the pigs in Atwood's *MaddAddam* trilogy and Joon-ho's *Okja*.

gene, which codes for a protein that triggers human allergies. As stated on the company's website, "our cats will be the first truly allergen-free cats" (Felix Pets, LLC). Animals have also been genetically modified for food use. In 2015, The AquaAdvantage salmon became the first genetically modified animal created for this purpose. Developed by AquaBounty Technologies, the typical growth hormone-regulating gene in the Atlantic salmon was replaced with the growth hormone-regulating gene from Pacific Chinook salmon, with a promoter sequence from ocean pout, enabling the salmon to grow larger and year-round instead of only during the summer.

Animal bodies are also "cyborg-ized" – equipped with bionic or cybernetic attachments – for a variety of purposes, ranging from animal-centered motivations to human-centered motivations. For example, in 2007 prosthetist Kevin Carrol and a team of experts designed a prosthetic tail for Winter, a bottlenose dolphin that was caught in a crab trap two years prior, which resulted in the loss of her tail. Up until her death in 2021 (due to an intestinal abnormality), Winter lived at the Clearwater Marine Aquarium, and her tail, made from silicone and plastic, enabled her to swim normally. The purpose of creating a prosthetic tail for Winter was so she could have a higher quality of life. In contrast, the Defence Advanced Research Projects (DARPA) have developed remote controlled cyborg beetles to be used for military purposes. In 2006, DARPA asked American's scientists to submit "innovative proposals to develop technology to create insect-cyborgs". In 2009, researchers from the University of California, Berkeley, announced that they have managed to create a remote-controlled cyborg beetle by attaching a computer chip to its brain, turning it into a miniature drone. While reportedly developed for search-and-rescue missions and disaster relief, these intentions are human-centric, and these animal modifications were not for the animal's benefit.

The creation of animal clones is another important example of biotech animals. Perhaps the most well-known example of an animal clone is Dolly the sheep. Dubbed “the world’s most famous sheep”, Dolly was cloned in 1996. Dolly was the first mammal to be cloned from an adult somatic cell. The birth of Dolly proved that specialised cells could be used to create an exact copy of the animal they came from, which was a significant accomplishment in biotechnology. After the creation of Dolly successfully demonstrated cloning, many other large animals were cloned, including pigs, horses, deer, and bulls.

In recent years, advancements in the creation of biotech animals only continue to advance. For example, in 2021, a U.K. biotechnology company called Oxitec released in the Florida Keys a genetically engineered offshoot of the Aedes aegypti mosquito that transmits dengue, Zika and other infectious illnesses. These mosquitoes were created because they are becoming resistant to chemical insecticides used to control them. Since only females bite, the company altered male mosquitoes to spread a lethal trait to females during mating, which results in more females dying faster. Before their release, a debate lasted for almost a decade on whether they should be released, mainly with the concern from Florida Keys residents over their safety. As time progresses, the creation of biotech animals will only advance, and the safety of humans will be of primary concern. It is difficult to be confident in the idea that the same number of people will show concern for the safety of animals, a fact that my dissertation addresses.

Animal ethics, ethics of care, and a (literary) animal ethics of care:

Animal studies, as a field, involves studying animals in a variety of interdisciplinary ways. Animal studies scholars may have an educational background in a variety of diverse fields, including anthropology, biology, film studies, history, literary studies, philosophy, and sociology. These scholars explore ideas of animality, animal welfare, animal ethics, or

humanmade conceptions regarding the "animal". Animal studies often employ other theoretical perspectives, such as feminist theory, postcolonial theory, or Marxist theory. Furthermore, in the words of Marianne DeKoven, "This turn away from homo sapiens and toward other animals does not mean a 180-degree turning of the back. It means that we humans can give up the burden of our solipsism and our reign over the planet and take our place among the animals in a posthuman conjuncture" (367). In other words, the attention given to animal studies does not have to mean a dismissal of issues and concerns relevant to humans; a key idea to note is that these two areas do not have to be, and should not be, seen in opposition.

The animal rights movement, which started with the animal protection movement in Victorian England, was influential in the development of animal studies. In early 19th Century England, the prevention of cruelty to animals became an important movement, growing alongside humanitarian involvements advancing human rights, including the anti-slavery movement and, later, the woman suffrage movement. The animal rights movement advocated for the end of animals being used for meat, research, clothing, and entertainment purposes. Ultimately, this movement is grounded in questions of ethics regarding our co-existence with animal species. Peter Singer is a founding and well-known example of a philosopher who explored the field of animal studies from an ethical perspective. In *Animal Liberation* (1981), Singer attempts to expand upon utilitarian questions regarding pleasure and suffering by extending them to animals. In his work, Singer argues that the idea of rights, a traditional framework to discuss human and nonhuman animal relations, is not necessary to consider one's relation toward animals. Rather, he argues that animals' sentient ability to suffer should be a key factor in our wanting to consider their interests. Following in the tradition of Singer, Thomas Regan discusses animal rights in his work *The Case for Animal Rights* (1983). Regan holds a

Kantian position, arguing that at least some types of animals are "subjects-of-a-life" (possessing unique life stories) have inherent value and must never be treated as means to an end.

Some important later theorists in animal studies include Jacques Derrida, Cary Wolfe, and Donna Haraway. One could argue that the appearance of Derrida's *The Animal that Therefore I Am* (2008), when published in English, was influential in seeing a rise in animal studies in the humanities. Derrida's work explores the ontology of animals, the differences between animals and humans, and considers the many binaries that humans construct between themselves and animals in an attempt to maintain human supremacy. In *Animal Rites* (2003), Cary Wolfe critiques Peter Singer's utilitarianism and Regan's Kantian-based ethics by highlighting how their philosophies contain elements of harmful humanist thought. W. J. T. Mitchell explains in the forward to *Animal Rites*, that Wolfe's work asks, "what it would mean to take the question of animal rights seriously in philosophy, as a deep problem for reflection, not just as a ready-made political or ideological position ripe for action" (xiii). Donna Haraway is another well-known scholar in the field of animal studies. In her works *The Companion Species Manifesto* (2003) and *When Species Meet* (2009), her development of "companion species" also leads to a discussion of "companion animals".

The branch of animal studies that I will be engaging with most in my dissertation is animal ethics – specifically, a literary animal ethics of care. Animal ethics explores human-animal relationships and how animals should be treated. This subject can include discussions of animal welfare, speciesism, animal cognition, the history of animal use, the concept of nonhuman personhood, anthropocentrism, and theories of justice. While there is no one theory that is completely accepted by all scholars in animal ethics, the most common founding theories in animal ethics belong to the categories of consequentialism and deontology. Consequentialism

is a class of ethical theories that argue that the consequences of one's actions are the basis for any judgement in a consideration of the rightness or wrongness of that action.[5] Deontology is a class of ethics that hold that, rather than looking at the consequences of an action, the morality of an action should be based on whether the action itself is right or wrong under a series of rules, and emphasizes duty and obligation.[6] Ultimately, consequentialism and deontology both highlight a framework of set standards and impartiality.

Instead of situating my argument in these common early ethical theories, my dissertation leans toward a relatively newer ethical approach for considering animals: ethics of care (also known as "care ethics"). Specifically, my project's core theoretical approach uses an animal ethics of care. First, let us consider the history and tenets of this ethics. Ethics of care was developed as a branch of feminist thought in the later 20th century. The origins can be traced back to Carol Gilligan and Nel Noddings, with their respective works *In a Different Voice* (1982) and *Caring: A Feminine Approach to Ethics and Moral Education* (1984). Gilligan's ethics of care was established because she believed women had different emotional responses compared to men, which called for a different ethical system directed towards women. Ethics of care is often contrasted with what Gilligan sees as "justice-based" ethics, such as consequentialism and deontology. However, because the range of biotech animals is complex and situational (especially regarding how they are represented in science fiction), my focus on ethics of care will also question when a moment arises where care practices may also need to be challenged, perhaps integrating tenets in justice-based ethics. Some scholars in care ethics already choose to take this approach, such as Grace Clement and Michael Slote.

---

[5] A well-known example is utilitarianism, the belief that actions are "right" if they bring more benefit than harm.
[6] Immanuel Kant's theory of ethics argues this mindset, outlining how people properly display "good will" when they act of respect for a "moral law" because they acknowledge that it is their duty to do so.

In *Curious Kin in Fictions of Posthuman Care*, Amelia DeFalco, who is especially interested in extending care theory towards nonhumans or "more-than-humans"[7] states that "Care is a vexing concept, largely because of its ubiquity as a term, concept, feeling, and behavior" (11). Part of this ubiquity stems from care's functionality as a verb and a noun, a dual function that implies one does care and one has care. Care, in its broadest sense, is "affection, devotion, responsibility, even obligation; it is action, behavior, motivation, and practice: care feels and care does" (DeFalco 5). How do we narrow this wide definition a little bit more? Perhaps feminist and ethics of care philosopher Virginia Held states it most concisely: "the central focus of the ethics of care is on the compelling moral salience of attending to and meeting the needs of the particular others for whom we take responsibility" (10). Acting upon this "moral salience" means being attentive to individual scenarios, refusing a "one size fits all" mindset. It also means "operating from the assumption that persons are relational" (DeFalco 12). As DeFalco suggests, this assumption also requires a willingness to encompass nonhumans/more-than-humans in the category of "persons", recognizing then that they too are constituted by their relations with others. To think with a care mindset means to recognize "vulnerability and interdependence as intrinsic, rather than anomalous" (12-13).

Ethics of care argues that moral action focuses on the relationships we have with others and emphasizes actions such as care and benevolence as virtues, as well as the importance of emotional compassionate responses such as sympathy, empathy, and compassion. As animal studies and feminist philosophy scholar Lori Gruen explains, "Within the care tradition in animal

[7] In *Curious Kin in Fictions of Posthuman Care*, DeFalco uses the term "more-than-human" as a "descriptive terminology" and as a "way of referencing non-anthropocentric life worlds without resorting to human/nonhuman binaries" (3). The more-than-human includes "entities in co-existence, including but not limited to biological life forms" (3).

ethics, compassion, sympathy, and empathy are the focus of much discussion. Although some people refer to these as 'moral emotions', they are more appropriately thought of as different forms of attention" (45, 2015). There are times where an ethics of care may call for either of or all these attentive responses. What is the difference between sympathy, empathy, and compassion? While often treated as synonymous, there are some differences to consider.

In differentiating between sympathy and empathy, M.W. Fox writes, "Sympathy is the sharing of another's emotions, especially grief and anguish, involving pity and compassion. Empathy (from the Greek term meaning affection, and a more recent German term *einfuhlung*, which means 'a feeling in'), entails the power of understanding and imaginatively entering into another's feelings" (61). Josephine Donovan considers the idea of sympathy in her discussion of the need for attention towards animal suffering. In her work, she rejects the idea that sympathy is irrational: "[sympathy] requires strong powers of observation and concentration, as well as faculties of evaluation and judgement. … It is a cognitive as well as emotional exercise" ("Attention to Suffering" 180). While there are many ways in which my core texts portray characters who sympathize, empathy is a little more specific. My discussion of Pat Murphy's novelette "Rachel in Love" and Emma Geen's novel *The Many Selves of Katherine North* in the third chapyer will consider empathy further. Gruen considers the idea of empathy in connection to how we relate to animals, arguing for what she calls "entangled empathy": "a type of caring perception focused on attending to another's experience of wellbeing" (*Entangled Empathy* 17). It involves recognising that "we are in relationships with others and we are called upon to be responsive and responsible in these relationships by attending to another's needs, interests, desires, vulnerabilities, hopes, and sensitivities" (*Entangled Empathy* 17).

Throughout my dissertation, I will use the terms sympathy and empathy when most suitable. At times, I will also use the word "compassion", a term that most commonly means "to suffer with." As provided by the Oxford English Dictionary, compassion refers to "The feeling or emotion, when a person is moved by the suffering or distress of another, and by the desire to relieve it; pity that inclines one to spare or to succour" (OED). John Fischer argues that one's compassion is especially strong if they act on it (214). Yet, as suggested by many examples in literature and in real-life practices, would there ever be a moment where it is arguably more compassionate to *not* take action? Would not taking action be falling in line with care ethics? This discussion will especially arise in my focus on Kirstin Bakis's *Lives of the Monster Dogs*.

According to care ethicists, a shortcoming to justice-based ethics is that they are inclined to emphasize sets of rules as a guiding principle rather than asking for flexibility, paying attention to situational examples, and considering the importance of response to the individual. Noddings explains that ethics of care is "interested in maintaining and enhancing caring relations—attending to those we encounter, listening to their expressed needs, and responding positively if possible" (13). Drawing attention to interconnectivity, Joan Tronto defines care as "a species activity that includes everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, our selves, and our environment, all of which we seek to interweave in a complex, life sustaining web" (103, 1993). Defining it as a "species activity" implies the possibility of opening care considerations to include a range of human and nonhuman interdependencies. In the words of DeFalco, "What if we abandon human 'specialness' as a prerequisite for concern and care?" (6).

My dissertation will consider how certain scholars in animal ethics, such as Donovan, Gruen, DeFalco, and Daniel Engster, approach animal welfare by connecting care ethics with

animal ethics to form an animal ethics of care. These scholars focus on the personal relationships that humans have with animals. As Engster explains, care ethics opposes animal suffering "not because we wish to maximize utility or consistently apply our rights theory across species, but because we have relations with animals and care about them" (521). Relations, here, can be understood as the way two or more beings are connected. Engster makes an important claim in the above quotation when he says we care "about" animals; ethics of care not only questions what it means to care *for*, but to care *about*.[8] As Noddings explains, "Caring-for describes an encounter or set of encounters characterized by direct attention and response. It requires the establishment of a caring relation, person-to-person contact of some sort. Caring-about expresses some concern but does not guarantee a response to one who needs care" (xiv).[9] Noddings also acknowledges that it is impossible for us to provide care for everyone in the world, even if we care about them; we may not be in the position to because we are limited by time, resources, and space. Regardless, caring-about is still important, and it aligns with Adams' and Donovan's assertion that animal ethics requires attention: "Attention to the individual suffering animal but also … attention to the political and economic systems that cause the suffering" (3). Caring about these reasons and trying to understand them displays a caring-about animals, and a caring-about animals can also influence our motivation to acquire knowledge in how to care *for* them.

[8] Grace Clement, as mentioned earlier, believes that ethics of care may be better suited to animals we have direct relations with and can easily care for (such as companion animals) and not necessarily well-suited to animals we have indirect relations with (such as wild animals). This is part of the reason she believes care ethics must also consider justice-based ethics. This idea will be discussed further in chapter 3.

[9] Providing a brief example that outlines the differences between caring-for and caring-about, Noddings explains "I might, for example, care about civilians living in fear during civil strife in, say, Syria, but I may not follow up on my expressed concern. Or I may follow up with a small gift to a charitable organization. Edging closer to caring-for, I may check on the credentials of the organization to find out how my contribution is spent" (xiv).

As DeFalco says, “Caring deeply for and about the nonhuman is a charged endeavor” (102). The primary nonhuman figure in focus in my project is the animal – specifically, the biotech animal. And so, why should animals be included in our circle of ethical concern, and why should we be thinking about caring-for and caring-about animals? One of the reasons is because they, just like human animals, have their own “umwelt”, a concept that Jakob von Uexküll uses to refer to an organism’s unique world in which they exist, perceive, interact, and carry out their lives (*A Foray into the Worlds of Animals and Humans*). Just like humans, they have an interest in carrying out their lives in a way that is fitting for one of their kind. Animals are significant and worthy recipients of care not only because many of them are sentient creatures, with the ability to suffer and feel joy, but also, as an ethics of care approach argues, we have direct and indirect relationships with them. Humans have evolved with animals, share the same planet as them, and have many of the same or similar basic interests. Furthermore, they are often abused, exploited, or manipulated by humans. The ethical action in response to this would be to acknowledge that we have an obligation to care-about and care-for them to the best of our personal ability, in situations where we can.

Before discussing literature and animal ethics of care approaches, it is worth providing a brief overview of literary animal studies. In its conception, literary animal studies raised questions of animals’ figurative significance. As animal studies scholar Susan McHugh points out, “animals emerged as significant figures in English literature only in terms of metaphor” (2009, 488). However, with the evolution of contemporary literature, this does not remain the case. As McHugh later states in her work *Animal Stories,* **“**animal narratives … pointedly appeal to the power of affect to defy the regimes that benefit from separation, isolation, and fragmentation of our lives and theirs” (2011, 19). As McHugh argues, contemporary literary

representations have a way of opening the reader to alternative modes of knowing and assessment that humanist frameworks would seem to preclude. McHugh et al. later inquire if we should accept reading animals in literature as metaphorical figures, or "should we, reading animals in literature, find ways to make sense of them as animals, attentive to their portrayal as an account of their own material or experiential reality?" (2). While this late practice is important, they argue that there is a value to both approaches, in "navigating between them, and accepting both at the same time" (2).

Contemporary literary animal studies also raises questions regarding how representations of animals might evoke ethical responses, sympathies, or kinships among species. Erica Fudge has also written on the practice of reading animals in literature. For Fudge, even though she acknowledges that the animal is still to be taken more seriously in the humanities, the question of why scholars in the humanities write about animals cannot be separated from an ethical question: "what can our work do to change current perceptions about animals?" (2000, 101). She brushes away any counterargument that this question is idealistic, and poses another question: "If we acknowledge that much work on animals is going to take up an ethical position, another important question must be posed: what does reading texts that represent animals add to existing ethical debates?" (2000,102). Fudge insists that this question is important to the development of literary animal studies, and if we cannot respond to it then "reading animals becomes just another angle for research, another shelf-filling strategy by academics" (2000, 102).

Fudge's considerations of ethics and literary animal studies serves as a fruitful segue into my main framework. Focusing now on animal care ethics, how can we recognize moments when literature is engaging with this approach? These are questions that Donovan explores in her work *The Aesthetics of Care: On the Literary Representation of Animals.* Rooted in care ethical

principles, Donovan develops what she calls an aesthetics of care as the basis for a critical approach to exploring the representation and treatment of animals in literature. This approach involves a mentality that is "nonviolent, adaptive, responsive, and attentive to the environment, perceiving other creatures as subjects worthy of respect, whose different voices must be attended to, and with whom one is emotionally engaged" (10). According to Donovan, literature that participates with such care aesthetics engages with an "I-thou" epistemology, rather than an "It-it" epistemology. An "It-it" epistemology falls in line with Cartesian mindsets, emphasizing the subject-object duality. In contrast, Donovan accepts the "I-thou" participatory epistemology, influenced by scholars such as Mikhail Bahktin and Iris Murdoch, which affirms that the natural world and its multiplicity of creatures "are recognized as subjects who have stories of their own" (73). Borrowing from Theodore Adorno's aesthetic theory, Donovan outlines that an aesthetics of care entails a "mimetic comportment," where the writer treats the other as a subject, not an object, thus engaging with the subject matter in an I-thou relationship. In Donovan's words, a mimetic comportment involves "a yielding to the subject matter, listening to its voice, following where it leads – in other words, it requires a practice of 'attentive love', a caring, responsive receptivity to the unique particulars of one's environment, paying attention to emotional qualia" (91). This practice does not mean the dismissal of intellectual attention, but that emotional attention should also be considered when considering the Other and their milieu.

The literary representation of animals is also a key focus in DeFalco's *Curious Kin in Fictions of Posthuman Care.* In conversation with care philosophy and posthumanism, DeFalco's text focuses on literary and cinematic works that represent a range of more-than-human companionships and various other relations that ultimately "expose, disorient, and often destabilize the ethical hierarchies endemic to anthropocentric ontologies" (3). DeFalco even

draws attention to biotechnological animal and human bodies in her chapter on care and disposable bodies. I am especially interested in her focus on these bodies that have been "engineered for extraction and disposal" (24). These bodies are reduced to disposability when their usefulness or value to humans is no longer worthy or required. In her exploration of literary works that represent these bodies, she considers how they explore "the consequences of caring for and about discarded bodies" (24), ultimately arguing that they "contest the disposability they depict" (105) and ask us to question "what might happen if one treats waste as worthy of care" (104). DeFalco includes Atwood's *MaddAddam* trilogy in her discussion, one of the core texts in my project. While I will also be focusing on this contested disposability in my discussion of the trilogy, specifically in relation to concerns surrounding survival and flourishing, I would also argue that each of my core texts, to various degrees, draw attention to the disposability of biotech animals and outline how thinking with a caring mindset is "a form of resistance" (104).

To apply care theory to animal ethics, then, means "listening to the 'voice' of animals, hearing their standpoint vis-à-vis a system that oppresses them" (Donovan 98). To do this, one must accept the premise that animals are "seats of consciousness", rather than "undifferentiated masses", and that they have individual stories of their own (Donovan 99). As Donovan and Adorno argue, literature has a unique capacity to help draw out the animal voice. Animal standpoint criticism[10] acknowledges that much of it has failed in this capacity, and aesthetics of care aims to draw attention to alternative forms of literary representation that draw away from simply "reduc[ing] the animal to a blank screen for human projection" (Armstrong 3). DeFalco

[10] Donovan argues that an animal-ethics approach to literature can be labelled as such. Standpoint theory/criticism argues against essentialism, critiquing existing ideologies that exist in texts (examples: sexism for feminist theory, classism for Marxist theory, ableism for disability studies, or speciesism and anthropocentrism for animal-standpoint criticism).

recognizes the potential power of literary works: “fictional texts can serve as catalysts for the theorization of care in its more-than-human complexities” (21). Stepping away from this reductive mindset of reducing the animal to a “blank screen’ brings us a step closer to a care approach that we can bring into our readings of animal-focused literature.

Biopolitics, biopower, and biocapitalism:

Each of the primary texts that I will be examining draw attention to biopolitical concerns, such as biopower and biocapitalism. Biopolitics is an intersectional field between biology and politics, focusing on the administration of life and populations. Power, as Michel Foucault argues, is located and exercised at the level of life. Biopower relates to the regulation of subjects through an “explosion of numerous and diverse techniques for achieving the subjugations of bodies and the control of populations" (*The History of Sexuality* 140). With the achievement of biopower, the state can produce social categories and ultimately create a society that conforms to norms (Roach 20). Subjects who follow these norms can be made “to live and be invested in” and those who do not follow the norms will be “‘let to die” through disinvestment and judicial power (Roach 20). Foucault’s analysis of this regime of power has influenced contemporary theorizing of subjectivity and politics; Giorgio Agamben’s work is a notable example. In *Homo Sacer: Sovereign Power and Bare Life*, Agamben roots his theory of biopower by differentiating two forms of life when understanding biopolitics: bios and zoe. Bios refers to the political life of the subject, or *how* one’s life is lived, while zoe refers to biological life or mere existence. In other words, bios refers to politically enfranchised life, while zoe refers to an exclusion from political enfranchisement. He argues that the loss of this distinction between bios and zoe results in “bare life”, where the sheer biological fact of being alive is given priority over the way a life is lived (Agamben 4). Foucault and Agamben had yet to conceive of how biotechnologies would

come into play with biopower. The development of biotechnology paves the way to an era where social divisions are reinforced by means of genomic technologies. These divisions apply to both humans and animals. While Foucault and Agamben do not directly address questions of animal agency or animal ethics, Vint argues that it is important to consider biopower when addressing these questions. As she notes, "humans and animals alike are shaped and controlled by modes of biopower that designate ways of living and dying" (*Animal Alterity* 444). By being attentive to the oppressive nature of biopower, and how "[t]his new political relevance of the body forces us to confront our continuity with other animals"', we can see how "better futures for humans and animals alike can come from critically interrogating the species boundary" (444). Attention to the oppressiveness of biopower allows us to recognize a need for thinking in terms of "connection and continuum" (444) with animals, rather than division.

Biocapitalism plays a role in both human and non-human life and is rapidly expanding in ways that incorporate the notion of Foucault's biopower. The term refers to how biotechnology and life sciences are an "innovation within late capitalism that controls, changes, and experiments with the basis of life" (Peters and Venkatesan 101). Stefan Helmreich further elaborates on the term: "in the age of biotechnology, when the substances and promises of biological materials, particularly stem cells and genomes, are increasingly inserted into projects of product making and profit-seeking, we are witnessing the rise of a novel kind of capital: biocapital" (463–64). Helmreich argues that biocapitalism/biocapital extends Foucault's notion of biopower to not only refer to individuals and populations, but also "cells, molecules, genomes, and genes" (464). My dissertation's core texts, in various ways and degrees, engage with critiques of biocapitalism in that each depicts unbridled and anthropocentric commodified life.

While profit-seeking is an obvious goal of biocapitalism, we can also argue that such profit-seekers and scientists are also concerned with determining "what bodies are and what they can do" (DeFalco, 2017, 441). DeFalco draws attention to the dangers of this goal, explaining that it has "serious ramifications for the open-endedness of affects, the body's unpredictable capacity for affecting and being affected by others" (441). Since people who use and exploit biotechnology only look to the level of DNA and genes to presume what a body is, they then only focus on the technological body and in doing so neglect spaces and moments of encounter, the significance of relational identity, and how care plays a role in the body's unpredictability. My core texts demonstrate how biocapitalism plays a role in neglecting, complicating and interfering with care ethical concerns and pursuits.

Chapter Breakdown

My dissertation's first chapter, titled "The Survival and Flourishing of Genetically Engineered Animals in Margaret Atwood's *MaddAddam* trilogy and Bong Joon-ho's *Okja*", explores the imagined possibilities in both texts on how we can relate to biotech animals that were originally created for corporate purposes and sustaining/extending select human life. How do these texts present genetically engineered pigs created for corporate use and question what it would mean, instead, to relate to them as beings worthy of survival and flourishing? Furthermore, how would care practices consider not only the animal's survival, but their ability to flourish in their coexistence with humans?

In the second chapter, titled "Cyborg Animals and Bodily Autonomy in Kirstin Bakis's *Lives of the Monster Dogs* and Grant Morrison and Frank Quitely's *We3*", I look at how both texts discuss the bodily autonomy of the domestic animals that were turned into uplifted cyborgs. This chapter focuses on the embodied ramifications and responses that these texts imagine regarding

cyborg animals used for warfare and their relationships with humans. In this chapter, I explain how the texts reveal to us why care approaches would benefit from keeping bodily autonomy in mind, even though some approaches may forsake it for the animal's physical wellbeing.

In the third chapter, titled "Human Minds in Animal Bodies in Pat Murphy's 'Rachel in Love' and Emma Geen's *The Many Selves of Katherine North*", I explore human-animal hybrids, the limits to knowledge, and the relationship between imagination and empathy. I closely consider how the authors suggest caring mindsets in our imaginative attempts to see through the animal's eyes. Furthermore, I question how such engagements may lead us to rethink how we use them for entertainment, extending human life, and other research.

My final chapter is titled "Persons and Monsters in Dean Koontz's *Watchers* and Jeff Vandermeer's *Borne*." This chapter considers the ways in which the biotech animals are framed as either persons or monsters and examines important questions regarding personhood and monstrosity and how they relate to care approaches. Must we re-evaluate the idea of personhood when the biotech animal *wants* to be seen as a person, in order to properly implement an ethics of care? How do ideas of monstrosity and the level of danger that the biotech animal poses towards humans and other animals affect ethical care approaches?

1.

The Survival and Flourishing of Genetically Engineered Animals in Margaret Atwood's *MaddAddam* trilogy and Bong Joon-ho's *Okja*

Note: Selections of this chapter are taken and adapted from a paper I published with *SFRA Review.* They are cited accordingly.

If one were to think about animals and biotechnology, their mind could likely turn to transgenic or other genetically engineered animals. Transgenic and other genetically engineered animals have been featured in many works of science fiction. Looking from the later 20th century to today, some notable examples include Daniel Keyes' *Flowers for Algernon* (1959), David Brin's novels taking place in the Uplift Universe (1980-1998), the *Planet of the Apes* franchise (1968-2017), and the *Jurassic Park* franchise (1993-2022). While many of these examples carried on into the 21st century, the turn of the 21st century saw one especially important novel depicting genetically engineered animals: Margaret Atwood's *Oryx and Crake* (2003). Atwood's novel depicts many examples of genetically engineered animal hybrids, from the rakunks (combination of raccoon and skunk), wolvogs (with the appearance of dogs but ferocity of wolves), the pigoons (pigs modified and bred to grow human tissue organs), and the Crakers (humanoid creatures). The two sequels, *The Year of the Flood* and *MaddAddam*, develop the complexities of the genetically engineered creatures – especially the pigoons. A noteworthy and more recent example of science fiction that also looks at genetically engineered pigs is Bong Joon-ho's film *Okja.* The film's imagining of genetically engineered pigs, "super pigs," are excessively large pigs modified for future meat consumption. While the super pigs are developed for food, we learn in *Oryx and Crake* that the pigoons were primarily created for xenotransplantation, the process of transplanting organs or tissues between members of different

species. This chapter's core texts, Atwood's *MaddAddam* trilogy and Joon-ho's *Okja,* using pigs as a case study, reveal the authors' attempts at drawing to attention the lives of such animals exploited by biotechnological engineering.

Yet, while Atwood and Joon-ho's genetically engineered pigs were created for different purposes, they both have one important element in common: they were both created in the name of extending (through xenotransplantation) or sustaining (through food consumption) the lives of privileged and powerful humans who can afford the benefits. Claire Colebrook asks, "How is it that humanity defines itself as that being that inevitably chooses life, and yet has done so by saving only its own life?" (204). As I have previously suggested elsewhere, while Colebrook's question is part of a larger discussion regarding human extinction, this question also lends itself to a consideration of a wider range of ways that humans cause destruction for nonhumans (Sousa 2021, 179). While corporations extend their biopower and literally kill animals for their own preservation (through food consumption, medicine, research, clothing, etc.), there is a sort of symbolic killing at play when humans think about how to ensure their own future but choose to exclude nonhumans in their consideration (Sousa 179). There is a sort of symbolic "killing" of animals that takes place when humans do not give enough attention to their future survival – in other words, they mark them as doomed. Yet, we cannot forget that there is also a *literal* killing that takes place, for many different reasons. One of the ways humans kill animals (purposely or unintentionally) is through the process and outcomes of genetic engineering; similarly, humans may kill animals because of the potential promises of genetic engineering.

Many terms are used to refer to genetically engineered animals. These terms may include "genetically modified, genetically altered, genetically manipulated, transgenic, and biotechnology-derived" (Ormandy et al 554.). Transgenesis, meaning the transfer of genetic

material from one organism to another, was the primary technological method in the early stages of genetic engineering. Biotechnological advances have since then produced new technologies that do not necessarily require transgenesis. For example, genetically engineered animals can be created via the deletion of genes, or the manipulation of genes already present. For the sake of simplicity and to include animals that are not strictly transgenic, I use the term "genetically engineered" in this chapter (and in other parts of my dissertation, when relevant).[11]

Genetically Engineered Pigs:

There have been many developments since the later 20th century in the genetic engineering of pigs. As Atwood and Joon-ho's works recognize, these developments are often for the purposes of xenotransplantation or food and agriculture. Yet, selective breeding came before these developments. The ancestor of what we know as the domestic pig is the Eurasian boar (*Sus scrofa*). The genome of the domestic swine has been altered through centuries of selective breeding to include desired characteristics in the pigs for the purposes of agriculture. With advanced gene technologies, the integration of a non-native gene into the swine genome resulted in the generation of the first transgenic pigs (Whyte and Prather, 1). These pigs were produced by injecting copies of human growth hormone into the pronuclei of newly fertilized eggs. This new ability to insert genetic material and/or replace or delete genes allowed for possibilities in using the pig as a research animal. Pigs have already been accepted by scientists

[11] The umbrella term "genetically engineered" has also been adopted into the guidelines developed by the Canadian Council on Animal Care (CCAC). They define a genetically engineered animal as "an animal that has had a random or targeted change in its nuclear or mitochondrial DNA (addition, deletion, or substitution of some part of the animal's genetic material or insertion of foreign DNA) achieved through a deliberate human technological intervention" (3).

and medical professionals as excellent candidates for surgical testing because many of their organs are similar to those of humans (Whyte and Prather, 1).[12]

In 2019, the United States Food and Drug Administration (FDA) approved a trial that focused on skin transplanted from pigs to humans, treating second and third-degree burns. Researchers at biotech company XenoTherapeutics genetically engineered miniature pigs; the skin of these pigs, called XenoSkin, were then transplanted to humans. XenoSkin is meant to serve as a viable option if human allograft skin (human skin donated for medical use) is unavailable. This experiment is the first of its kind to be approved by the FDA ("'A Leap of Faith'"). To date, according to the company's website, XenoSkin has resulted in "highly promising patient outcomes" and has been "well tolerated by all patients, resulting in zero adverse events or safety issues, and without zoonotic disease transmission" ("Home", *XexoTx*).

In 2020, the FDA approved the use of genetically engineered pigs in both medical and food products. These pigs, called "GalSafe" pigs, were created by the biotechnology company Revivicor (successor to PPL Therapeutics) in 2001. They can be used in the production of medical drugs, xenotransplantation, and meat that people with specific meat allergies can safely consume. The "alpha-gal" sugar found on the surface of pig cells is eliminated in GalSafe pigs through bioengineering (*Pig Progress*). This elimination is because some people may have mild to severe allergic reactions if they consume this sugar. While originally GalSafe pigs were only being used for food, they are now being used by Revivicor for xenotransplantation. Their mission is to provide organs from genetically engineered pigs in response to the common shortage of human organs available for transplant. Revivicor turns to genetic engineering

[12] These organs include the human heart, the coronary vasculature, liver, kidney, lungs, and uterine histology.

because organs from non-engineered pigs, regardless of their similarities to human organs, are too often rejected quickly when transplanted into humans. To engineer organs suitable for human patients and to decrease the chance of rejection, Revivicor edited ten genes in the pig genome, three of which were silenced to prevent rejection, one was silenced to prevent continued post-transplant organ growth, and six genes were inserted to prevent blood clot formation and inflammation (Revivicor.com). In July of 2023, a procedure was conducted at New York University where surgeons transplanted a Revivicor pig kidney (referred to as a UKidney) in a man neurologically declared dead but maintained a beating heart through ventilator support. The kidney remained functioning in the body for over a month. This experiment was approved by the permission from the family of the man, as it also received ethics committee approval.

The Ethical Concerns of Animal Genetic Engineering:

While pigs have been widely used in genetic engineering, animals of other species are also used. Many animals have been and continue to be genetically engineered, including mammals, fish, birds, insects, and amphibians. Genetic engineering technologies have various applications: they can be applied to farm animals, companion animals, wild animals, and animals used in scientific research. There are many reasons why animals are genetically engineered. These reasons range from experimenting with disease treatments (marmosets are used to test treatments for Parkinson's disease[13]), population control (Malaria-resistant mosquitoes[14]), artistic purposes (Alba the rabbit), aesthetic purposes (the GloFish), to cloning (Dolly the sheep).

[13] Gerald Schatten, and Shoukhrat Mitalipov. 'DEVELOPMENTAL BIOLOGY: Transgenic Primate Offspring'. Nature, vol. 459, no. 7246, May 2009, pp. 515–16. PubMed Central, https://doi.org/10.1038/459515a.
[14] James Gallagher. "GM Mosquitoes Offer Malaria Hope". BBC News, 20 Apr. 2011. www.bbc.com, https://www.bbc.com/news/health-13128327.

In recent years, the genetic engineering of animals has significantly increased. This increase leads to many ethical concerns. One of these concerns focuses on transgenic creations, specifically the mixing of human genetic material with other animal species. On one hand, the feelings of anxiety or horror that people may feel over the idea of such mixing may be interpreted as "a humanist defense against the symbolics of animality breaching and 'degrading' the human" (Twine 31). In other words, if a human is spliced with animal genetic material, it is demeaning and makes them less human. Furthermore, as Richard Twine points out, while one may think that it is naïve to assume that technological animal advancements will lead to the same treatment of humans because Western culture institutionalizes a moral boundary between the human and the animal, there is still high potential for a slippery slope. While some legal and regulatory lines are drawn to try and stop the slope (prohibiting the creation of human clones, for example)[15], a counter argument would be the case of the "mysterious unregulated rogue scientist who will break the law anyway" (Twine 57). Ultimately, what defines this ethical concern is the consequences that genetic engineering can have on the integrity and/or wellbeing of humans.

Yet, there are also ethical concerns that are focused on what genetic engineering does or means for animals. One concern is the fact that animals can feel pain. Mylan Engel, Jr. argues that recognizing an animal's ability to feel pain means recognizing a "commonsense moral belief" that it is wrong to intentionally harm conscious sentient animals for "*no good reason*" (318). Generally, ethical concerns that place their attention on what genetic engineering does or

[15] Some examples include the Assisted Human Reproduction Act, a law enacted by the Parliament of Canada, which includes cloning a human, creating a chimera, and creating a hybrid for the purpose of reproduction as prohibited activities (https://laws-lois.justice.gc.ca/eng/acts/a-13.4/page-1.html#h-6052), and The Human Reproductive Cloning Act 2001, an Act of the Parliament of the United Kingdom, which prohibits placing a human embryo in a woman if it has been created by methods other than fertilization (https://www.legislation.gov.uk/ukpga/2001/23/enacted).

means for animals look at issues of animal welfare and/or issues of animal rights. Animal rights advocates argue that animals should not be used in experimentation at all, while advocates for animal welfare likely accept the use of animals, to certain extents, but are mostly concerned over whether the animals are treated "humanely" and consider whether harm can be justified by the benefits to humankind.

When is it ethically permissible or acceptable to genetically engineer animals? Is there ever a time? Some would claim that humans should always be allowed to genetically engineer animals and that the question of whether it is ethically permissible is irrelevant. This argument stems from a belief that animals and nature are part of what Martin Heidegger calls a "standing reserve"; making something into a standing reserve means the subject is objectified and exists only for their future potential, which suggests that a standing reserve should not be seen as a subject (*Heidegger: The Question Concerning Technology)*.[16] Unless it is for aesthetic or artistic purposes, animals are genetically engineered for the promise of "bettering" the future of privileged humans. Some recent studies have shown that many Americans are accepting of genetically engineering animals if it will benefit human health, but they oppose many other uses. For example, in a survey conducted by the Pew Research Center, only 29% of U.S adults answered that genetically engineering mosquitoes to prevent the spread of disease by limiting their reproduction is "Taking technology too far" (the other option being "Appropriate use of technology"), yet 79% of U.S. adults said that it is taking technology too far when you genetically engineer aquarium fish to cause them to glow. Looking at the people who had objections to genetic engineering to grow organs/tissues for humans needing a transplant, many

[16] Heidegger is credited for the term "standing reserve", but he was critical of this position and was against treating nature in this way.

voters (21%) had an animal welfare issue, choosing their main reason as "Animal suffering/harmful to animals" (Funk and Hefferon). Yet, regardless, slightly more people than not (57% vs. 41%) are for the use of animals to grow organs/tissues for humans.

Whether it is ethically permissible to allow the genetic engineering of animals if it is for the improvement of human health is not an easy question with a straightforward answer. Kant argued that people must be treated as an end, and never as a means to one. In other words, having a "good will" or rightful intentions is a requirement for all of humanity to create a morally just society (Johnson and Cureton).[17] However, animals are not legally considered "people" universally, since they are often considered property. Kant also believes that our duty to animals is an indirect duty to humankind, insisting that cruelty towards animals can lead to cruelty towards human beings. In other words, being cruel to animals is wrong not because of the animal's suffering, but because we may do the same thing to humans. Even ethics of care may have a hard time offering a straightforward answer. While we have relationships with other humans, and genetically engineering animals to improve human health *may* be a way of showing care towards humans, some of us also have personal relationships with animals, and sacrificing their bodies would not be an example of care towards them.

Philosopher Bernard Rollins discusses the Aristotelian concept of *telos.* Using an example of a spider, he states that telos is "a nature, a function, a set of activities intrinsic to it, evolutionarily determined and genetically imprinted, that constitutes its 'living spiderness'" (2006, 100). Jes Lynning Harfeld claims that telos should be used to demonstrate what matters in welfare assessment and ethical evaluation (691). Applying this concept to animal ethics, Rollins

[17] To Kant, the only thing good without qualification is a "good will". A good will is good under any condition, which means its goodness must not depend on any particular conditions obtaining.

explains that telos is "at root a moral notion, both because it is morally motivated and because it contains the notion of what about an animal we *ought* to at least try to respect and accommodate" (2016, 452). Genetically engineering an animal means altering its telos, since we are altering its genetic composition. Rollins' argument is that if we are careful to accommodate the animal's interests when we alter its telos, then genetic engineering could be considered morally permissible. As he states, "... we should respect the interests which flow from [the telos]. This principle does not logically entail that we cannot modify the telos and thereby generate different or alternative interests" (2016, 452). Of course, a reasonable counterargument to his point is that it would be more caring to not alter their telos at all, and not engage in genetically engineering them to begin with. Nonetheless, at the very least, if genetic engineering is going to happen, creators must keep the animal's new telos in mind.

While it is certainly caring to accommodate an animal's interests when you alter its telos, does that mean we should be dismissive of the moments when we alter an animal's body if it is *not* for the animal's benefit? What if it is also not for human health benefits? Consider the difference between docking an animal's tail for aesthetic reasons versus docking a dog's tail for medical reasons. Robert Heeger and Bart Rutgers claim that the main difference here is the animal's integrity, which they describe as the "wholeness and intactness of the animal and its species-specific balance, as well as the capacity to sustain itself in an environment suitable to the species" (45). Altering the dog's tail for aesthetic purposes is a violation of its integrity but altering it for medical reasons is not, because that action shows that we care about the dog's health. Genetically engineering an animal just so it can die later, may, in certain circumstances, show caring towards human health, but can we safely say that it is also showing care towards

animals? The literary texts that I will discuss in this chapter allow us to explore this ethical problem.

Questioning an Animal's Right to Survival:

With certain debatable exceptions[18], an animal must be allowed to live for anyone to practice care towards it. Raising an animal for the purpose of eventually killing it would be inconsistent with care ethics because it would likely cause the animal at least some momentary pain, and end the animal's life (Engster 531). Using death as an example, Tom Regan argues that some harms "take the form of deprivations" (117). As he writes, "Death is the ultimate, the irreversible harm because death is the ultimate, the irreversible loss, foreclosing every opportunity to find satisfaction" (117). Ending one's life deprives the being of any further chance of living a good life.

Before an animal can be allowed to live, the animal must first be deemed worthy of survival. A common understanding of survival is that it is the state of continuing to live or exist, usually despite any danger, hardship, ordeal, or some other difficult circumstance that the individual may be met with. When it comes to survival, some animals are more easily accepted as worthy subjects (companion animals, for example). I argue that a key difference between surviving and living is that while surviving focuses on continuing to exist despite present obstacles (or past ones that affect the present), living focuses on the individual being able to engage in "some conception of the good life" (Engster 522) that is available to them. These animals can be allowed to flourish, at least to the extent that is available to them. Chinese Pugs and French bulldogs, for example, which are dog breeds that were bred for their cuteness and

[18] These will be discussed more in chapter 2. For example, the question of whether it is caring to end an animal's life if it is in pain or unhappy.

their infant-like big eyes, are unfortunately burdened with respiratory problems. While this practice of breeding them is certainly unethical, being born with health issues does not necessarily equate to being unable to find "some conception of the good life". Rather, a care ethics approach would see these dog owners recognizing how the needs of these dogs may differ from other dogs of other breeds and be willing to adapt to successfully accommodate them.

A key difference between companion animals and many laboratory/farm animals is that companion animals are not being raised so they can eventually be killed. They are granted a right to survival, and, if the owner is treating them with care, they are also granted a right to live. While it is true that some farmers try to treat the animals humanely before they kill them, the animal is still fated to be killed at the hands of a human – something over which they have no control. As Lori Gruen explains, "being alive is necessary for any other values to exist, and there is, thus, a prima facie reason for valuing life itself" (*Ethics and Animals* 27). Genetically engineered animals are too often fated to be killed. In Atwood's trilogy and Joon-ho's film, some of the animals are eventually granted survival without this threat; the possibility of being killed by humans no longer shapes their lives. Yet, since their lives are still closely entwined with humans, an ethics of care can help us understand what it would mean for these animals to be "living". Care ethics, then, would call for attention towards the needs of genetically engineered animals, and how they can be given avenues for flourishing.

The Importance of Flourishing

Flourishing can be understood as prospering or developing in a beneficial and/or satisfying way. Animal flourishing is seen when an animal is living a life where they are free to carry out their interests. When observing animals in their natural settings, "we can know what capacities and functions animals of the species in question generally display, and what type of

ontogenetic development is normal for the species. In this way, it is possible to form fairly appropriate judgements on an animal's living in a natural manner" (Heeger and Brom 250). Yet, it should not be implied that animals cannot flourish in modified settings. The possibility of animal flourishing in more human-like environments is one of the many important points Martha Nussbaum establishes in her "Capability Approach."

The Capability Approach is a theoretical framework that prioritizes the freedom to achieve well-being; well-being should be understood in terms of a subject's capabilities. Nussbaum argues that each creature has a set of capabilities, distinctive of that species and that the animal will flourish if its capabilities are supported by its material and social environment. She also notes that this observation can only function properly if combined with the Kantian idea that we owe respect to each sentient creature that we view as an ends-in-itself rather than a means. As Nussbaum notes, "what we owe to each animal, what treating an animal as an end would require, is, first, not to obstruct the creature's attempt to flourish by violence or cruelty, and second, to support animal efforts to flourish in positive ways" ("The Capabilities Approach and Animal Ethics" 7). As she further explains, we must make "ample space for choice and self-determination" (7) and "always be sensitive to considerations of choice, to the extent that we believe an animal capable of choice among alternatives, [yet] for the most part we must and should exercise informed paternalistic judgments concerning the good of the creature" (7). Nussbaum closely develops her Capability Approach in tandem with what it means for an animal to live a flourishing life. As she asserts, "no sentient animal should be cut off from the chance of a flourishing life, a life with the type of dignity relevant to that species" (*Frontiers of Justice* 351). The genetically engineered animals in the *MaddAddam* trilogy and *Okja* continually show evidence of being sentient.

In the next two sections that follow, I will focus my attention on looking closely at the *MaddAddam* trilogy and *Okja*. I look at these texts not to argue that they are real world examples, but in order to demonstrate how Atwood and Joon-ho's choices in the works suggest an ethics of care mindset, while also demonstrating how such an ethics can easily be violated. To contextualize this discussion, I will first provide a brief synopsis of the works. I will then outline where we see a lack of care for animals in these texts, and what it means when certain animals in the texts are given the privilege of survival. Lastly, I will then discuss how these texts allow us to consider animal flourishing.

Atwood's *MaddAddam* trilogy

The three novels that encompass Atwood's *MaddAddam* trilogy – *Oryx and Crake* (2003), *The Year of the Flood* (2009), and *MaddAddam* (2013) – depict an America that has been drastically transformed by oppressive government systems and a rogue scientist, from a nation shaped by deregulated biopolitical capitalism to post-apocalyptic societal collapse. The trilogy investigates the connections between humans, animals, the environment, and advanced biotechnology. While the pigoons will receive the most attention in my analysis, I will also briefly consider the Crakers (since they too are animals), and other genetically engineered animals in the trilogy. Throughout the pages of the trilogy, readers encounter a range of genetically engineered animals; the pigoons, rakunks, wolvogs, and the Mo'hair sheep (sheep with human hair) are just a few.

Oryx and Crake focuses on a post-apocalyptic protagonist named Snowman (known as Jimmy in flashback scenes) who shepherds a new species of sapient humanoid beings known as the Crakers. Snowman believes he is the sole human survivor in the wake of the Juve virus (Jetspeed Ultra Virus Extraordinary), created and distributed by Crake, Jimmy's best friend.

Crake is our youthful Frankenstein/Dr. Moreau figure, who nearly ends humanity with a bioweapon. Before his distribution of the virus, Crake creates the genetically modified humanoid beings whom Snowman later calls “Crakers”. The novel’s narrative shifts between Snowman’s present-day caring for the Crakers in a newly ravaged world with genetically engineered animals running loose in the wild, and a series of flashbacks from his life as Jimmy that reveal what led to the creation of the Crakers and what led to the apocalyptic event.

The Year of the Flood takes place during the same time as *Oryx and Crake*, but the narrative perspective alternates between two new characters: Toby and Ren. The narrative presents their lives before and after the apocalypse. The novel also captures their experiences as members of God’s Gardeners, an environmentally focused small community of survivors, briefly referred to in *Oryx and Crake*, who form a cult/religion. *The Year of the Flood* answers some of the questions posed in *Oryx and Crake* and develops and elaborates further on many characters mentioned in the first novel.

MaddAddam, the trilogy’s final installment, continues the story from the point where the first two novels intersect, marking how Toby and Ren encounter and save the nearly dead Snowman. The narrative then explains how Toby and Ren rescue another survivor, Amanda Payne (a member of the God’s Gardeners) from two violent criminals known as “Painballers”, who have been hardened by a colosseum-like game called Painball. *MaddAddam*’s narrative also shifts between the present day and pre-apocalypse flashbacks, focusing on Toby in the present day and the memories of Zeb, a member of both God’s Gardeners and the bioterrorist group MaddAddam. While the vengeful Painballers stalk them, these characters form a camp and try to rebuild civilization, along with the Crakers. The wild nearby pigoons also play a vital role in this novel in helping the humans and the Crakers.

The trilogy demonstrates how genetic engineering technologies are used and abused in a society that lacks appropriate care responses. Regarding *Oryx and Crake*, Atwood writes loosely about the novel's intentions: "Every novel begins with a what if, and then sets forth its axioms. The what if of *Oryx and Crake* is simply, what if we continue down the road we are already on? How slippery is the slope? What are our saving graces? Who's got the will to stop us?" (*Curious Pursuits* 223). What, though, is this "road we are already on?" While Atwood does not explicitly answer this, we can assume her answer based on her following question: "How slippery is the slope?" Where do we draw the line when it comes to our course of actions that may lead to disastrous or unacceptable consequences? It is clear that *Oryx and Crake* is a novel concerned with themes of environmentalism and scientific manipulation; Atwood herself hints that our connection to the natural world is what is at stake and what she is concerned with. Reflecting on what inspired her to write the novel, she explains that while she was birdwatching with her spouse in 2001, she noticed "red-necked crakes scuttling about in the underbrush" and that is when "*Oryx and Crake* appeared to [her] almost in its entirety" (Atwood 2003).

It is no surprise that an animal is at the heart of the origins of the trilogy's first novel. In the novel, one of the first types of animals that readers are introduced to are the pigoons. While one of many lab creations in Atwood's trilogy, the pigoons are especially significant because they can be read as models on making peace with the Other, and "finding ways of living with other creatures without treating them as already always meat" (Wall 142). At the start of the novel, the pigoons are described as "much bigger and fatter than ordinary pigs, to leave room for all of the extra organs" (25). The pigoons are spliced with "rapid maturity genes" (38) so they can grow multiple kidneys at a time (22). As is further explained, "Such a host animal could be reaped of its extra kidneys; then, rather than being destroyed, it could keep on living and grow

more organs … That would be less wasteful, as it took a lot of food and care to grow a pigoon" (22-23). On the topic of waste, Amelia DeFalco writes about the pigoons ultimately being treated as disposable bodies; once all of the organs have been extracted, "their exhausted bodies are waste, empty containers to be discarded" (*Curious Kin* 124). It is also important to note in this passage that the novel initially suggests that care is only extended to the pigoons when it becomes a matter of *growing* the pigoon. Ironically, this desire to preserve rather than destroy the pigoon stems from a need to preserve the human, and not from any motivation to protect the pigoon's wellbeing. The pigoons, then, are treated as "non-human slaves and voiceless properties in the Compound plantations, […] judged by their utility to humanity" (Galbreath, 3). Of course, despite the attempts to try and preserve the pigoon as long as possible, their utility eventually runs out.

However, not all humans in the trilogy are being preserved either. In Atwood's imagined society, pigoons and unprivileged humans are reduced to bare life and viewed in terms of use-value. Lars Schmeink is aware of this shared precarity: "both pigoon and human are reduced from life forms to mere values in a utilitarian system of hypercapitalist consumption" (90). In *Oryx and Crake*, when Jimmy's father tells Jimmy's mother, Sharon, about the pigoon project, Sharon is outraged at the "moral cesspool" (56). Before she flees the compounds (a corporate gated community where she lives with her family), she argues with Jimmy's father about the ethics of the society's exaggerated genetic engineering, feeling outraged that him and his company have "thought up yet another way to rip off a bunch of desperate people" (56). Sharon, a once highly regarded scientist who eventually became disillusioned with her work, is an erratic character and a "constant dissenting voice throughout the novel" (Sanderson 235). It is later suggested that Sharon was aware that companies were introducing diseases into the population to

profit from the cures that they would have the opportunity to create, and of her husband's complicit role in this scheme. Jimmy's father works for OrganInc Farms, where he is one of the leading architects on the pigoon project. His complicity overwhelms Sharon with guilt. As she says to him, "You hype your wares and take all their money and then they run out of cash, and it's no more treatments for them. They can rot as far as you and your pals are concerned" (56). I argue that a key reason why Sharon is included in the novel is to draw attention to the society's lack of ethical consideration towards genetically engineered animals. She continues to scold her husband for the pigoon project: "What you're doing—this pig brain thing. you're interfering with the building blocks of life. It's immoral. It's … sacrilegious" (57). While it is true that Sharon's language suggests that she is more concerned with the sacrilege of what the company is doing, and less on the fact that the animals are not being taken care of, Sharon is still the first person in the novel to denounce biotech experiments and to draw attention to the ethical implications of humans playing God with other life forms, especially when there seems to be no limits or regulations.

The complete lack of regulation in Atwood's society contributes to the oppressive system's lack of care responses. In his discussion of *Oryx and Crake*, Jay Sanderson observes the weak (or borderline nonexistent) presence of the law in the novel. Companies such as HelthWyzer (a company known for developing new diseases and distributing them to the population their vitamin pills) and RejoovenEssence (a biotech company where Crake works at and creates the Crakers) seek regulatory approval based on health and environmental impact studies and forego lawyers, courtrooms, and other official regulatory authorities (Sanderson). Indeed, and as Sanderson says, regarding the absence of regulatory institutions in *Oryx and Crake*, "the apparent absence or failure of the law to regulate the development and application of

biotechnology makes the widespread application of biotechnology possible" (Sanderson 236). With a public widely captivated by the latest biotechnological innovations, regulatory enforcements are undermined, and there are several ramifications for the creation of genetically engineered animals in the novel. One such ramification is that "the evaluation and assessment of possible risks involved with genetically engineered animals is non-existent" (Sanderson 237). An example that demonstrates this danger and precarity is the creation and distribution of the ChickieNobs, large "bulb-like" (*Oryx and Crake* 202) objects consisting of edible chicken parts developed by the students at Watson-Crick (the prestigious institute that Crake attends). Since there are no recognizable regulatory frameworks governing the development of the ChickieNobs, scientists avoid evaluating the possible risks of consuming artificial chicken meat. As Sanderson observes, "This has a predictable effect on decisions about the nature and future direction of ChickieNobs, particularly as investors are 'lining up around the block' to become involved in putting ChickieNobs on the fast-food market" (*Oryx and Crake* 237). Since corporations are left to develop and commercialize their genetically engineered goods any way they so choose, it is very easy for biotechnology to get out of control.

Another example in the trilogy that shows a lack of care towards genetically engineered animals is the mindset of the MaddAddam group. The members of the bioterrorist network MaddAddam show little to no indication of trying to listen to the needs or wants of the genetically modified animals. The main intention of the MaddAddam resistance movement is to eradicate the tyranny of the CorpSeCorps, the corporate security services. As explained in *The Year of the Flood*, the MaddAddam group "take[s] the bioforms to the locations and let[s] them loose" like "time bombs" (333). Zeb's belief is that "if you could destroy the infrastructure, … then the planet could repair itself. Before it was too late and everything went extinct" (333). The

MaddAddam group is first introduced in *Oryx and Crake* when Crake interacts with them through a digital portal in the online trivia game Extinctathon; it is this moment when we learn, as stated by one of their taglines, "Adam named the animals. MaddAddam customizes them" (216). Some of their customizations are mentioned in *Oryx and Crake*; their work, to name a few, includes a house mouse addicted to the insulation on electric wiring and a rodent containing elements of porcupine and beaver that can creep under the hoods of vehicles and destroy their transmission systems (216). Although Sally Borrell argues that these examples demonstrate human and animal collaboration and that *Oryx and Crake* "recovers the potential of posthumanism to combat anthropocentric and political hegemony" (174), it is hard to be convinced that these examples are void of anthropocentrism if one recognizes how MaddAddam is, ironically, using animals as instruments for *human* projects. While it is true that MaddAddam use animals for the greater benefit of the environment, this is still a utilitarian-driven action that justifies further exploitation of animals.

This lack of care, for both humans and animals, is also evident when considering how authorities of corporate biopower in the novel do not consider the consequences when genetically engineering animals. As Lars Schmeink notes, "Where geneticists … design new life forms 'as an after-hours hobby' by simply 'fooling around' (*Oryx* 59), … it seems only fitting that many of the genetically engineered creatures do not remain fixed in natural niches and threaten all categorization" (88). For example, he draws attention to the snat, as described in *Oryx and Crake* as "an unfortunate blend of snake and rat: they had to get rid of those" (51). Indeed, many of the genetically engineered animals had to be killed because "they were too dangerous to have around – who needed a cane toad with a prehensile tail like a chameleon's that might climb in through your bathroom window and blind you while you were brushing your

teeth?" (51). This pattern of destroying several different genetically engineered animals because they are too dangerous to keep alive points to a greater desire to experiment and "play God" than to extend careful consideration of who will be affected by the creation of these animals. Humans would have their safety jeopardized, and the animals run the risk of being killed if it is not safe to keep them around.

In *Oryx and Crake,* characters originally give little attention to the likely possibility that certain environmental factors may eventually allow the genetically engineered animals to adapt in ways the scientists did not expect. For example, in the post-apocalyptic present, Snowman thinks about how risky it is living in the wilderness with genetically engineered animals. For example, he sees a pigoon with a tusk and thinks about this oddity: "Pigoons were supposed to be tusk-free, but maybe they were reverting to type now they'd gone feral, a fast-forward process considering their rapid-maturity genes. He'd shouted at them and waved his arms and they'd run off, but who could tell what they might do the next time they came around?" (38). Snowman's implied helplessness here is directed towards his fear that perhaps the pigoons may hurt him eventually – and there may be nothing he can do to prevent or stop it. And so, while the release of genetically engineered animals poses a possible danger to the remaining humans, another issue, as Schmeink points out, is that "the new transgenic species challenge any remaining delusions of a mastery over nature by adapting to life beyond their preconceived functions" (88). This is an "issue" in the sense that the scientists rely on and expect this mastery.

Thus, with this lack of care, it would not only be hard for people to give proper attention to the flourishing of animals, but also to their rights to survival. As to be expected, humans are at the center of consideration in these discussions. As Kiyomi Sasame says in her analysis of *Oryx and Crake*, "Atwood presents us with the question of where we will be at the end of the road we

are now taking and whether or not we will survive in a time of global warming, overpopulation, and genetic engineering. To put it simply, the topic of this dystopian novel is the survival of humankind itself" (101). Indeed, as mentioned earlier, Atwood asks "What if we continue down the road we're already on?" (Atwood 2003). In the trilogy's first installment, the survival of humankind is at the forefront, seen in how people keep producing artificial foods in order to survive. Countless species have become extinct because of the deterioration of the environment, and biotechnology is used to create new animals immune to diseases. In our own present-day, we too see the fabrication of new animals for the benefit of select humans. Sanderson notes that Atwood creates "a corporate environment in which the fittest survive" (223). Seeing as Atwood's corporate environment is more concerned with the survival of the fittest *humans*, it should not come as a surprise then that they do not give enough attention to the survival of animals.

The trilogy especially emphasizes the importance of the survival of the Crakers. What should readers make of the fact that the Crakers' survival is more often considered compared to the survival of the genetically engineered animals? What needs to be remembered is that the very reason Crake created the Crakers was so they could replace humanity. In *Oryx and Crake,* when revealing the Crakers to Jimmy, Crake explains that select human traits have been altered out of them, including "destructive features, the features responsible for the world's current illnesses" (305), such as hierarchy, territoriality, carnivorousness, and unpredictable sexual inclinations outside of a set mating cycle. It is later revealed that Crake engineered the Crakers not simply as "floor models" for the possibilities in designer baby engineering (where parents can select genetic traits for their future child), but as human replacements. His plan was always to eliminate the human species through the mass distribution of a fatal virus, to which he destroyed the cure. While it is true that the Crakers have been genetically engineered and that they are hybrids of

human and animal (since they contain splices of different animals), they are, in fact, humanoid in appearance. They were, after all, originally fashioned to be human replacements, not just aids and tools for humans like the genetically engineered animals were.

While the lack of care is certainly noticeable in Atwood's trilogy, the potential for care ethics is also embedded throughout. Before we examine these potentials, let us first consider how and why, by the end of Atwood trilogy, the pigoons are allowed to survive. The pigoons become survivors of the capitalistic systems that created them for human consumption. In *MaddAddam*, when the Painballers are seeking to kill the human survivors while regularly eating pigoon piglets, the pigoons want revenge and turn to the humans and the Crakers for help (269). In asking for help, the pigoons demonstrate self-awareness; they know that they require care from the humans in order to ensure their survival from the hyper-consumption that the Painballers symbolize (Sousa, 181). In exchange, the pigoons will agree to a truce, stop eating the humans' crops, and strive to co-exist harmoniously. As Blackbeard, one of the Crakers, explains to the humans, "they will never again try to eat your garden. or any of you […] Even if you are dead, they will not eat you. and they ask that you must no longer make holes in them, with blood, and cook them in a smelly bone soup, or hang them in the smoke, or fry them and then eat them. Not anymore" (169).

Because of the human group's recognition that the pigoons and them have a shared adversary, the humans are now forced to care, to some extent, for the pigoons. As previously mentioned, Nel Noddings outlines the difference between caring-for and caring-about, where caring-for is "characterized by direct attention and response" and caring-about "expresses some concern but does not guarantee a response to one who needs care" (xiv). Yet, caring-for and caring-about do not necessarily always work in conjunction. While the humans in *MaddAddam*

do provide care for the pigoons by helping them defeat the Painballers and honoring the truce they made with them at the novel's end, I would argue that it is left ambiguous at the end of *MaddAddam* whether the humans are doing this because they care about the pigoons themselves, or if they mostly care about peaceful co-existence.Yet, it is still noteworthy that the humans do indeed respect their contract with the pigoons. Nussbaum expresses skepticism over the idea that animals and humans can form genuine contracts: "although we do share a world of scarce resources with animals … the asymmetry of power between humans and nonhuman animals is too great to imagine any contract we might make with them as a real contract" (2006, 334). While this may be the case, the pigoons are *genetically engineered* animals; the fact that they have been altered must be considered. As we see near the end of *MaddAddam*, the contract is indeed honoured. Part of what balances the asymmetry between humans and pigoons is the humans having to come to terms with the pigoons' "level of life" (Nussbaum, 2006, 361). Nussbaum emphasizes the importance of recognizing an animal's "level of life" (361), which requires an understanding that there are less complex and more complex forms of life. More complex forms of life will have capabilities, meaning that they can have their capabilities be blighted by others, leading them to suffer more and experience different types of harm. As Nussbaum notes, "nothing is blighted when a rabbit is deprived of the right to vote, or a worm of the free exercise of religion. Level of life is relevant not because it gives different species differential worth per se, but because the type and degree of harm a creature can suffer varies with its form of life" (361). By this point in the novel, the humans are aware of the capabilities of the pigoons, and how their mind works in ways that human minds do not. In acknowledging their level of life, the humans are able to recognize their interests, what could or would cause them harm, and what would cause them unhappiness. It is safe to say that the humans recognize that

the pigoons would not feel satisfied if the humans decided to break their truce and continued to hunt them. And so, while it would be hard to say whether the humans actually care about the pigoons themselves, they certainly, still, acknowledge the pigoons' need to reach a concept of the good life. In contrast to the MaddAddam group that often uses animals in a way that leads to further animal exploitation, this example of human-pigoon collaboration is for the purpose of mutual flourishing. Since it presents itself as more of a mutually beneficial partnership, the line then between what we can we deem an exploitive or instrumental partnership and an ethical one is fuzzy. Is it safe to clearly demarcate that line? I would say that the answer to this is not that straightforward. However, this is where we should consider the importance of Noddings's caring-about. Does the novel suggest that caring-about exists in such a partnership that tries to stray away from exploitation?

In comparison to the ending of *MaddAddam*, a scene in *Oryx and Crake* shows Jimmy caring-about the pigoons. As Laurel A. Tweed notes, "Despite being born and raised in a society that places its highest values within those of the market, Jimmy's early values are aligned with virtues of care" (54). However, he cannot, at the time, care-for the pigoons. As a child, Jimmy feels distressed when the men at his father's work make jokes about the pigoons being in the meals that they are eating: "he [Jimmy] didn't want to eat a pigoon, because he thought of the pigoons as creatures much like himself. Neither he nor they had a lot of say in what was going on" (24). Jimmy cares about the pigoons' suffering, sees them as "creatures much like himself", and (similar to his own) can recognize their inability to speak against their own oppression (Sousa, 183). While the public accepts using the pigoons for medical reasons, there are many objections from the public to eating the pigoons. Yet, while Jimmy objects to eating them because he feels compassion for how they are victims, the public does not seem to have the same

concern. Their objection is not because of any compassion towards the creatures, but because they possess human DNA. While the public are only opposed to eating pigoons because they are concerned with the apparent disgrace or degradation of the human (through the consumption of pigoons with human DNA), Jimmy, in contrast, cares about the pigoons' wellbeing (Sousa 183).

Another example where we see Jimmy care about their wellbeing is when he sees some pigoons in pens at his father's work: "Right after the pens had been washed out they didn't smell too bad. He was glad he didn't live in a pen, where he'd have to lie around in poop and pee. The pigoons had no toilets and did it anywhere; this caused him a vague sensation of shame" (26). Of course, Jimmy's musings are child-like, since it is not standard for pigoons – or pigs – to use a toilet. Regardless, what this scene is suggesting is that what Jimmy recognizes here, with this image of the pigoons sitting in their own waste, is the subpar living conditions they are forced to deal with. Similarly, when Jimmy's father tells him to make sure he does not fall in the pen because they'll eat him up, Jimmy responds "No they won't" (26). He thinks to himself, "Because I'm their friend, he thought. Because I sing to them. He wished he had a long stick, so he could poke them – not to hurt them, just to make them run around. They spent far too much time doing nothing" (26). Here, Jimmy believes that his singing would allow the pigoons to feel a sense of affection or warmth because the singing shows that he cares about how they feel. Jimmy's concern that they spend too much time "doing nothing", hints at a possibility that he recognizes that they do not have enough stimulation in their lives. Jimmy's ability to recognize that this is a legitimate reason for concern again shows his young mind gradually understanding that they do not live in an ideal environment. Being forced to lie in their own waste and not even have enough room to roam does not allow the pigoons a chance to live a flourishing life.

However, as Jimmy matures into an adult, he starts to care less about the pigoons. As Tweed notes, "His recognition of the social self and his relational status does not result in a solid care ethic that involves action as well as reflection. A social ethic of care is necessary if we are to develop persons who act through an ethic of care, and this social care ethic is missing in every aspect of Jimmy's life" (56). Indeed, Jimmy is not equipped in a world that makes it easy for him to practice caring mindsets. His own social environment does not properly encourage caring relations, and it would rather the population be desensitized to the suffering of others. Even though these moments in Jimmy's childhood demonstrate his empathetic capacities, Jimmy grows up and "learns to suppress empathy because it is not valued in society" (Tweed 65).

Yet, these early moments in Jimmy's life where we see his potential to be a caring person cannot be ignored. These moments of Jimmy caring about the pigoons contrast with moments in the trilogy where characters acknowledge that they – and the rest of their human companions – do not care about the pigoons. For example, in *MaddAddam*, before the human-Craker-pigoon collaboration, Tobey talks to Blackbeard about the pigoons, telling him that "You are not the friend of those who you turn into a smelly bone" (268). Death, as we can recall, is a serious deprivation. What Toby's statement suggests is that she recognizes that as long as humans continue to kill the pigoons and turn them into meals ("smelly bones"), there is no way the pigoons will think that the humans have their best interests at heart. In other words, she understands that the pigoons are aware, on some level, that the human characters do not care about the pigoons' quality of life.

However, what is also worth considering is that not all characters in the trilogy seem to agree on what counts as the greatest quality of life for a genetically engineered animal. In *Oryx and Crake*, Jimmy's father gives him a rakunk (a cross of a raccoon and skunk) as a companion

animal, whom Jimmy names Killer. Jimmy develops a strong bond with Killer and is devastated by the loss of her when his mother frees her into the wild. Before his mother leaves Jimmy and his father, she leaves them a note, where the postscript states, "I have taken Killer with me to liberate her, as I know she will be happier living a wild, free life in the forest" (61). Jimmy is upset not only at the loss of his companion animal, but he worries about her well-being: "Killer was a tame animal, she'd be helpless on her own, she wouldn't know how to fend for herself" (61). Yet, while Jimmy is certainly displaying a genuine concern for Killer's wellbeing, it is worth asking how much he knows about the nature of rakunks. Was it caring of Jimmy to keep Killer in the house? Not enough evidence is given to suggest that Jimmy actually knows, with certainty, that Killer will indeed be helpless in the wild and not know how to fend for herself. On the other hand, was it caring when Jimmy's mother "liberated" Killer? Even though Jimmy's mother says she "knows" Killer will prefer living in the wild, ultimately no evidence is provided to show that either of these characters can know, for certain, what flourishing would look like for the domesticated rakunk. Nevertheless, we cannot ignore Jimmy's mother's intentions. The fact that Jimmy's mother emphasizes that Killer "will be happier living a wild, free life" when she releases her in the forest indicates that the rakunk's happiness is something she cares about. In this moment, the novel allows readers to consider the idea of treating an animal's happiness as worthy of ethical consideration.

This question of what a body – specifically, a genetically engineered animal body – can do implies a potential for the body to adapt to certain situations. While we cannot forget that they are often forced to adapt because of the conditions that human authority figures put them in, this ability to adapt means their ability to flourish will likely alter in some way. Ethics of care has not always been attentive or considerate to the idea of animal flourishing. For example, wild animals

have often been dismissed when care ethicists consider the flourishing of animals. Flourishing can easily be forsaken when wild animals – especially predatory ones – are placed in zoos, because they may have limited opportunities to carry out their natural capabilities or instincts. The pigoons, of course, are not living in zoos; they live out in the wild, but a "wildness" that has been exploited and ravaged by the government. Although Atwood's characters are not majorly concerned with this, climate change has had a detrimental impact on the environment. For example, the world Snowman now lives in is one where forest fires burn on for weeks. Atwood also draws attention to the smaller amount of protection from the sun afforded by the ozone layer. As is explained in *Oryx and Crake*, "Noon is the worst, with its glare and humidity. At about eleven o'clock Snowman retreats back into the forest, out of sight of the sea altogether, because the evil rays bounce off the water and get at him even if he's protected from the sky, and then he reddens and blisters" (37). And so, even though Killer the rakunk, and the pigoons, are left free to roam as they please out in nature, at what cost?

What needs to be acknowledged here is that Atwood proposes that it is not *impossible* for the pigoons to reach some level of flourishing, even in this ravaged environment. The ability to reach this level calls for human cooperation. Even though care ethics has not always been attentive to the flourishing of wild animals, it still has the potential to consider the flourishing of animals if the ethics continues to call for flexibility and adaptation. Jozef Keulartz and Jac. A.A. Swart consider Nussbaum's capability approach and explain that the welfare of animals should not be measured against the context of wildness, but instead be "measured against the possibilities an environment offers animals to actually display their basic natural capabilities" (132). They further explain, "If appropriate care is given, animals can flourish in less natural and more human environments. What matters to the welfare of animals is the presence of sufficient

opportunities to employ their natural capabilities, not the naturalness of the environment" (132). Indeed, Timothy Morton seeks to challenge our thinking of "nature" and "natural". As he explains, "All kinds of beings, from toxic waste to sea snails, are clamoring for our scientific, political, and artistic attention, and have become part of political life – to the detriment of monolithic conceptions of Nature" (17). As *MaddAddam* demonstrates, the ability for the humans and the pigoons to flourish and reach what Raymond Corbey and Annette Lanjouw call "respectful coexistence" – a term that refers to "the ability to share resources and space, as well as to respect each other's needs and self" (2) – is dependent on multispecies collaboration. As Dunja M. Mohr notes, "[*MaddAddam*] familiarizes us thus with the strange: the necessity of cohabitation and respectful negotiation with other species—the posthumans and the transgenic animals—on an equal basis" (248). Yet, what can "respectful negotiation" look like?

Much like how we know that not all humans act the same or desire the same things, Atwood's trilogy suggests that we can apply that line of thinking to animals as well. Genetically engineered animals especially need this consideration since their genetics have been altered, which can lead to a variety of results. For example, Atwood points to a recognition of a balance between species norms and individual capacities in a scene in *The Year of the Flood*. While there is not yet enough current evidence to claim that pigs undergo grieving rituals at the loss of another pig, Atwood depicts the pigoons having what characters and readers can assume is a funeral. In this scene, adult pigoons are placing flowers and branches by the corpse of a dead baby pigoon. The human characters, of course, cannot know for certain why the pigoons choose to (or need to) behave in this way. Yet, a part of allowing individuals to flourish also means not standing in the way of their having "space for choice and self-determination" (Nussbaum, 2011,

7), and not standing in their way of them exercising certain actions that may contribute to their development, or them living out their most authentic self.

In *The Year of the Flood*, Toby often treats the pigoons as abject and untrustworthy nuisances. This mindset is exemplified when she witnesses them having a funeral for the pigoon she shot that got to close to the food in her garden: "Usually they'd just eat a dead pig, the same way they'd eat anything else. But they haven't been eating this one. Could the pigs have been having a funeral? Could they be bringing memorial bouquets? She finds this idea truly frightening" (328). Toby's frightened reaction suggests that she is unable to accept that the pigoons may need this grieving process. However, Toby gradually starts to accept the idea that if the pigoons are indeed capable of grieving, then she should not be in a position to claim that they cannot have funerals: "We [God's Gardeners] believe the Animals have Souls. Why then would they not have funerals?" (328). This mindset is a first step for Toby to see them as creatures other than pests.

Similarly, the Crakers develop beyond what Crake originally wanted and expected of them and exceed human expectations. In *Oryx and Crake*, Crake explains to Jimmy that he tried to breed practices such as religion and an interest in history or art out of the Crakers. Yet, as readers quickly learn, this attempt is unsuccessful. The Crakers constantly ask Snowman where they came from, engage in a singing-based mating ritual, and towards the end of the novel they begin to make art – they build a figure in the likeness of Snowman in hopes that he will have a safe return from his travels. Throughout the trilogy, the Crakers turn to Snowman, Toby, and other human characters for opportunities to learn more about the world and their own potentials. As Everett Hamner notes, Atwood's trilogy "rejects the notion that there are merely a few genes to modify and presto! you have a completely different person" (3354). If genetic engineering

cannot fully guarantee that the creator will know all there is to know about the created being, then it is safe to say that they cannot dictate what it means for that being to flourish.

The Crakers also flourish in their interactions with others, and they also contribute to helping the pigoons flourish. When Atwood asks, "What are our saving graces?" (*Curious Pursuits* 223), I would argue that she is trying to draw attention to the importance and necessity of interspecies connection, as exemplified in *MaddAddam* when the humans and Crakers try to collaborate with the pigoons. The Crakers are able to develop and evolve because of their interactions with humans. Yet, their interactions with other nonhumans should not be overlooked. In *MaddAddam*, the Crakers and the pigoons communicate in a method beyond human language. This communication allows the pigoons to pursue their own flourishing. While it would be ideal for caring-for and caring-about to always work together, it is caring-for that allows the genetically engineered pigs the widest opportunity for flourishing. As previously mentioned, years after the battle with the Painballers, the humans and pigoons are still respecting their truce. The humans, after helping them with the Painballers, allow them the space to live their lives undisturbed and as they wish. Yet, this form of caring would not have been possible without the Crakers first caring-*about t*he pigoons. It is the Crakers who inform the humans that the pigoons need help, through their form of telepathy. As Blackbeard explains to the humans, "It is easier for them to talk to us" (270). It is the fact that the Crakers initially care about the pigoons and then express this caring to the humans which allows the humans to then care-for the pigoons. Lars Schmeink notes that it is through the Crakers where Atwood "introduces compassion for the pigoons" (93). Compassion, which is a sympathetic concern for the suffering or misfortunes of others, already also indicates a caring-about. Throughout the trilogy, the Crakers are characterized as benevolent and nurturing. The fact that they are the ones who can

easily feel compassion towards the pigoons and show their care about them by voicing their concern to the humans suggests a posthumanist vision for the future: what comes after anthropocentric mindsets. Caring about other species, even ones that were originally created for capitalist consumption, is a frame of mind that can be cultivated and practiced.

Good intentions are an important part of this practice. In the mind of the pigoons, a human is not showing caring-about if they are the one to kill the animal themselves. In a scene in *MaddAddam* when Toby thinks the pigoons are unintentionally leaving behind the dead body of a baby pigoon, Blackbeard explains "It is a gift. It is dead already. They have already done their sadness" (271). When Toby protests that they agreed not to eat them anymore, Blackbeard clarifies, "Not kill and then eat, no. But they say you would not be killing it yourselves. Therefore, it is permitted. They say you may eat it or not eat it, as you choose" (271). By drawing attention to the fact that the humans did not actually kill the baby pigoon, what the pigoons are indicating is that intention matters as well. The pigoons seem to be indicating that the consumption of the baby pigoon is permitted because the pigoon was not killed by the consumer, nor was there a violent/destructive mindset that defines the animal as being *killable* or reduces it to such. Not having harmful intentions should be valued because (as the pigoons and the humans are aware) it is very difficult to live in a world without any harm happening at all.

Toby's character development is evident in *MaddAddam* when her attitude towards the pigoons shift. Because of the collaboration with the pigoons, Toby gains more belief in the existence of the pigoons' culture, intellect, and, ultimately, their agency. As Nussbaum writes, "Part of respect for other species is a willingness to look and study, learning the internal rhythms of an animal community and the sense of value the way of life expresses" (2006, 372). This willingness to "look and study" also means that partial pieces of knowledge – accepting that our

knowledge is always incomplete or partial – are also still valuable. In *MaddAddam*, as Toby watches the pigoons and the Crakers communicate, she observes the pigoons' behaviour:

> The Pigoons alongside tilt their heads to look up at their human allies from time to time, but their thoughts can only be guessed. Compared with them, humans on foot must seem like slowpokes. Are they irritated? Solicitous? Impatient? Glad of the artillery support? All of those, no doubt, since they have human brain tissue and can therefore juggle several contradictions at once. (348)

While there may be traces of anthropocentrism still lingering in Toby's thoughts, since she credits the human part of the pigoons that allows them to have a variety of thoughts, the importance here is that she is open to many possible answers as to what the pigoons may be thinking. She recognizes that their thoughts can "only be guessed", but that does not stop her from making the guesses, as exemplified in the questions she askes. Tobey also shows the potential for care and multispecies cooperation. When Jimmy wonders if the pigoons are leading them astray to ambush and then eat them, Toby responds: "I'd say the odds are against it. They've already had the opportunity" (348). The fact that Toby is unconvinced by Jimmy's idea shows her choosing to instead believe in the intellect and potentially compassionate capacities of the pigoons. She recognizes the fact that the pigoons are able to think about themselves as well as the humans and the Crakers – and that humans should adopt that same empathetic practice (Sousa 183).

While one may argue that the pigoons can only carry out their agency because of the human DNA within them and that the trilogy, then, may still carry tones of human exceptionalism, we cannot ignore the fact that the pigoons are *pigoons*, not humans. The human DNA within the pigoons does not make them human. Borrell notes that Atwood's work demonstrates how animals can resist humanist discourse "by affecting the attitudes of individual

humans or by resisting humanist endeavors by their own actions" (ii). Indeed, the pigoons challenge the idea that humans are the center of concern and the idea that humans are entirely in control over the beings they create or modify. However, capitalism's power to control bodies cannot be ignored. The pigoons may never be able to feel free of their capitalist origins that deemed them as commodities. While the pigoons may not know why they were created, they are haunted by their awareness that humans have deemed them exploitable, and the clear hierarchy that has been established between them and the humans. In other words, they are haunted because they cannot forget how they were originally treated by the humans; it is possible too that the pigoons may have some awareness that there is still part of the humans that see them with disdain. Likewise, Joon-ho's film *Okja* demonstrates how easy it is to be haunted by these origins.

Joon-ho's *Okja*

Joon-ho's film *Okja* (2017) follows a young Korean girl named Mija and her relationship with Okja, a super pig that Mija and her grandfather raised for ten years. Ten years before, the Mirando Corporation in the United States genetically engineered 26 excessively large pigs, named super pigs. The Corporation sent them to farmers around the world, with the intention of crowning the best super pig ten years later. These super pigs were developed for future meat consumption. When Okja is crowned as the best pig, she is taken away from her home in South Korea to New York for the public revealing ceremony, before she is to be slaughtered. Upon realizing Okja's fate, Mija embarks on a journey to New York to rescue Okja from slaughter and mistreatment at the hands of the meat industry. Along the way, Mija is assisted and hindered by the Animal Liberation Front (ALF), a group of animal activists determined to expose the Mirando Corporation's mistreatment of the super pigs. In my analysis, I will look at the

treatment of Okja by the Corporation and by Mija, the importance in rescuing the baby super pig (at the end of the film), and significance in the fact that many of super pigs are *not* rescued. Regarding *Okja,* Aurélien Acquier and Alf Rehn ask an important question that warrants consideration: "what happens if we take into consideration the feelings and sentiments of animals only bred by man for productive purposes?" (525). It is also worth noting that unlike Atwood's *MaddAddam* trilogy, *Okja* is a film, thus a visual narrative. Alongside my analysis I will also consider the significance of depicting this narrative through the medium of film, and how the director's decisions contribute to our understanding of an animal ethics of care.

Early in the film, Lucy, the CEO of the Mirando Corporation, explains their alleged goal for the super pigs: the super pigs will be "designed to leave a minimal footprint on the environment, consuming less feed and forage, producing less excretions" (00:05:00). This scene shows Lucy trying to sell the super pigs as a gift to nature. This is because, as Taylor Zavitz and Corie Kielbiski explain in their analysis of the film, "emphasizing words such as 'environment' or 'natural' distracts from the industrial conditions in which most animals in the Western world are raised" (104). Yet, despite this attempt at distraction, the reality of the Corporation's agenda cannot be ignored: "although the language of capitalism has shifted, it is the function of the same system that justifies and normalises the instrumentalization of non-human animal life" (Zavitz and Kielbiski 105). Indeed, this justification is emphasized when Lucy then goes on to end her speech with a point they cannot neglect: "But most importantly ... They'll need to taste fucking good" (00:05:03). It is no coincidence that this is the note that Lucy ends her speech on. As the audience of the film can later recognize, it is this last point that is truly most important to the Corporation. After this point in the film, members of the Mirando Corporation show no signs that they are truly concerned with their environmental footprint. Rather, the super pigs, much

like the pigoons in Atwood's trilogy, are defined solely as bodies, and in the words of Laura Hudson, "As the representation and embodiment of nature, the animal becomes the marker of bare life" (Hudson 1664). Indeed, the genetically engineered animal is especially a marker for this category. While companion animals can be seen with sentimentality and as more than mere bodies, too often the genetically engineered animal is defined by their body and what their body can do. This definition can especially be emphasized if the genetically engineered animal, like Okja, also crosses into the category of farm animal.

Along with the biotech corporations' lack of restraint, there seems to be a suggestion that public individuals cannot have their own sense of control and balance. Much like in the *MaddAddam* trilogy, the genetically engineered pigs in *Okja* seem to be developed under a societal assumption that the concerns and motivations of the people are purely self-serving and individualist, rather than caring and relational. The creators of the super pigs do not show much indication that they believe that people could form emotional, meaningful bonds with these animals (Sousa 181). While I would say that it is a complicated matter as to whether there is a strong bond between a human and a genetically engineered animal in the *MaddAddam* trilogy, Okja and Mija in Joon-ho's film certainly offers the audience an example of such bond. As Zavitz and Kielbiski observe, it is clear from the very beginning of the film that "Okja and Mija are not a machine and an operator, but that they share a special bond. To Mija, Okja is a member of her family, just as much as her grandfather. It is unacceptable to Mija … when it is revealed that Okja is actually considered property. Once Okja has been depicted as the playful, intelligent and loyal individual she is, it is also disturbing for us to learn this" (98).

Regardless, the Mirando Corporation does not care about the clear indication of Okja's sentience or her personality traits, nor do they care about any intimate bonds between humans

and super pigs. Rather, they care about how they can exploit the bond by portraying it to the media and the public. When they realize that Mija is trying to rescue Okja, the Mirando Corporation takes advantage of the bond between Mija and Okja by paying for Mija to come to New York City and plan for her to be reunited with Okja in a public event. They set this plan up not because they care about the Okja and Mija's bond, but because they want to minimize public relations damage to the company. In a conference room at the Mirando Company Headquarters, Lucy and her fellow co-workers watch a video clip on their television set of Mija crying after Okja has been taken away from her. Lucy pauses the clip and points out the danger in this image: "shoving her best friend into a truck… that's going to kill us. Right there. That image. We're dead" (00:55:51). It is ironic that Lucy uses words such as "kill" and "dead" to describe what will symbolically happen to the Mirando Corporation, when the Corporation literally plans to kill Okja. This choice of words only further emphasizes what the Corporation cares about and what they prioritize.

More importantly though, this scene indicates that Lucy recognizes that some audience members will not appreciate watching a child cry over the loss of an animal that has essentially become her companion animal (even if Okja was created for slaughter). In James Serpell's discussion of pigs and pets, he outlines the different types of moral attitudes we often have toward the two types of domesticated animal: the farm animal and the companion animal. Farm animals are accepted as animals meant to provide meat (or other forms of use-value), while it is acceptable to treat companion animals as pseudo-members of the family. Westerners would accept that a pig is meant to provide meat, but not a cat or dog. The paradox in the "inconsistencies inherent in our treatment of these two separate classes of domesticated animal" only exists when we assume "that both types of treatment are normal" (Serpell 20). Because

Lucy knows that the public accepts both treatments, and she recognizes that this specific super pig is blurring the lines between both types of domesticated animals, she cannot publicly act as if the company only accepts Okja as a farm animal and not a companion. Thus, this leads her to performing in a way as if she cares about Mija and Okja's companionship. Furthermore, Lucy is aware of the power of the media, and how "Images of happy animals, despite their real circumstances, … have gained traction in the modern world because of increasing attention to how animals are treated in labs or factory-farm settings" (Zavitz and Kielbiski 105). Lucy knows that if she does not try to minimize public relations damage to the company by failing to provide the public with an image of a "happy" animal, the company runs the risk of more attention being given to the reality of how they treat the animals, and the consequences of taking the super pigs away – exemplified, for example, in the image of an unhappy Mija.

Furthermore, Lucy's choice to pause and then stop playing the video clip of Mija crying so she can instead point out the dangers of Mija's sadness (from a public relations standpoint) contrasts with how the viewer is supposed to interact with the film. When confronted with an image of another's pain, Lucy pauses the image and focuses on how that child's pain can hurt her company. In Lucy's world in the film, Mija and Okja are real individuals; Lucy, then, is dismissing real pain and sorrow. For the viewer of Joon-ho's film, these characters, while played by real people, are, of course, are fictional. In the field of film theory there are scholars who argue that film audiences can and do identify or empathize with characters they see on screen, and that that is a crucial aspect of their emotional engagement with a narrative. While some theorists critique this idea, drawing attention to how fictional characters do not have "psychological states" and that we thus cannot form our own beliefs about their beliefs, desires, and fears (Susan L. Feagin), others would argue that this is not the point. Alex Neill, for

example, says that "the value of empathy does not lie solely in what it can contribute to our understanding of others and their worlds of experience. Empathizing with others also makes available to us possibilities for our own emotional education and development" (Neill 192).

One of the major formal differences between the visual medium of film and the written medium of literature is that film happens to the watcher while the reader has control of the pace of reading a text. In other words, films are typically viewed serially from beginning to end (especially if the viewer is at the cinema), unless of course a solitary film viewer at home chooses to use the pause, rewind, or fast forward functions on a remote control (Hutson 4). *Okja*, however, is a Netflix production and was thus never released in theatres. With this in mind, is it wise for us to pause the film or dismiss Mija's pain in the same way that Lucy does when she watches her on the television screen? Is it wise for us to fast forward the scene? I would argue that as a viewer of the film, we are meant to watch it serially and confront the uncomfortable moments, accept our discomfort, and critically evaluate *why* we feel that discomfort. As the film director-Bong Joon-ho explains in an interview (and as I will expand on later), "It's only been recently that animals have been included in the mass-production, conveyor-belt factory system – that they've been turned into products, … I really want to show the pain, and the lives that animals have to go into, when forced into this capitalistic endeavour" (Carew 62). As Neil further notes, "part of the value of fiction, and in particular film fiction, lies in the fact that by encouraging and sometimes demanding empathetic responses from us, it makes such broadening of perspective available to us" (Neill 192). Thus, if we were to act like Lucy and stop the film at a moment of discomfort, we would not be fulfilling what Joon-ho hopes for his audience; we would not, then, be watching this film with the appropriate amount of care, attention, and awareness.

After watching this video clip, Lucy then comes up with the solution of bringing Mija to New York to reunite with Okja. She praises this idea: “A moving reunion! The Best Pig and the adorable farmer girl forced to part but reunited on our stage. … An emotional reunion, then the two of them leave the stage. Hand in hand. Hand in trotter!” (00:56:08). The irony in this plan is that Lucy seems to ignore the obvious fact that audience members should still be able to recognize that even though Mija and Okja will be reunited, this is only temporary since they will have to part from each other again when Okja is taken away for slaughter. Of course, a counter argument here is the existence of willful ignorance, that there is always the possibility that the audience may willingly choose to not think about this fact. If this is the case, with these willful dismissals the people then choose to ignore the needs of the animal.

In doing so, the implication is that they can condone super-pig suffering since it is supposedly benefitting humans who will eat their meat. There is a willful ignorance here where they do not want to see the super-pig as an individual. This utilitarian drive leads us to question the value of the individual versus the collective regarding genetically engineered animals. As previously mentioned, the members of MaddAddam in Atwood’s trilogy do seem to think it is permissible to exploit the animals for their own cause. And so, can many genetically engineered animals be exploited and/or killed to save the environment, or to combat oppressive, capitalist forces? Alternatively, can one be sacrificed in order to save a larger number of genetically engineered animals? Joon-ho raises questions when the ALF group tries to make a deal with Mija. The leader of the ALF, Jay, tells Mija about their plan to try and seek her permission first. He explains that their plan is to put a recording device in Okja’s ear and let her be captured by the Mirando Corporation, so they can document and expose to the world how the Corporation cruelly mistreats animals. While their goals with this action is to possibly shut down Mirando

and save more pigs' lives, Jay is clearly aware of the suffering that Okja would have to go through, which is likely part of the reason why he tells Mija they will not do it without her permission. Another member, K, who also speaks Korean, mistranslates Mija's answer and tells Jay that Mija agreed when what she really asked was for Okja to be returned home to Korea. It may be easy to sympathize with the ALF's motives; after all, they want to save future super pigs from being harmed (much like how the members of MaddAddam want to improve their society). However, it may not be easy to reconcile the idea that other genetically engineered animals have to suffer in order for this to happen. It is especially difficult when watching *Okja*; Joon-ho gives his audience emotional scenes showing Okja being physically abused. And so, while the ALF and MaddAddam may care about a "bigger cause" and animals on a larger scale, they are willing to potentially sacrifice the lives of other genetically engineered animals. The ALF treating these animals as a means to an end also means that they do not have the same rights – or privileges – to survival.

Nonetheless, *Okja* reveals how our love for individual animals can activate an opposition to animal exploitation. After exposing the undercover footage of the abuse of Okja in the laboratory during a public event, the ALF relies on affect and the horror people feel when confronted with the abject reality behind the suffering of an animal. In one scene, Okja is present on stage as the undercover footage of abuse is playing on a screen behind her. In this scene, the audience is presented with the live animal there on stage, not showing any immediately recognizable signs of abuse on her body, and an image of that same animal being abused on the screen. This scene perhaps becomes more effective in evoking the audience's empathy because Okja is live and present in that moment, standing before their very eyes. The audience is essentially presented with two realities – the liveliness and personality of Okja who is there on the stage, and the

corruption and mistreatment of her life and body that is evident in the undercover footage playing on a screen right behind her. In having Okja there on stage, as she is reunited with Mija, the audience (both in the film and *of* the film) simply cannot ignore the horror behind Okja's mistreatment. Isabel Jaén Portillo considers cinematography and empathy and explains that fictional films "tap directly into our prelinguistic abilities to mimic and understand others through their faces and bodies, that is, to empathize with them" (Portillo 2). During this scene, the film viewer is not only witnessing the background videoclip of Okja physically suffering while being abused, but they are also witnessing and hearing the shocked gasps and horrified expressions of the audience in the film that is watching that clip as well. These sounds and facial expressions are Joon-ho's attempt to tap into our ability to not only empathize with Okja's suffering, but to also relate to the audience's shock and horror at witnessing the suffering.

In an interview, Joon-ho stated that he had to emphasize the story's harsher elements, such as the scenes where animal abuse is shown. He stated, "Films either show animals as soulmates or else we see them in documentaries being butchered. I wanted to merge those worlds. The division makes us comfortable, but the reality is that they are the same animal" (Gilbey). The film certainly succeeds in showing how they are the same. One way we can see this is by Joon-ho's choice to show Mija and her grandfather's contrasting perspective towards Okja. While Mija will stop at nothing to save Okja, the grandfather is aware that Okja is fated to be an animal for slaughter. Mija's grandfather, who cares for and arguably cares about Okja and does not necessarily endorse the views of Mirando, still allows her being sent her off to be slaughtered. While it is true that Okja is the property of the Mirando Corporation, he does not put up a fight. He also reacts with surprise at his granddaughter's outrage towards Okja being taken away. He gives her a speech that effectively tells her that she needs to grow up, suggesting that she needs

to abandon her approach of seeing animals as friends rather than commodities if she wants to become an adult. Mija, however, refuses to see Okja in terms of economic value unless she is *forced to* in order to save her life (which I will soon expand on).

In one scene, after Mija breaks her piggybank and is picking up coins off the ground to fund her mission to save Okja, Mija's grandfather tries to distract her and picks up a red marker and draws vertical and horizontal lines across a photograph of Okja, saying "Blade! Shoulder! Lion! Spare rib! Hock! Got it? This is what will happen to her. This is Okja's fate" (00:33:39). Considering the film viewer's role when engaging with characters, Portillo explains that the filmmaker's "cinematic strategies" that are "intended to make us care" allow us to follow the character's "emotional reactions to their circumstances and watch them develop emotionally, as their cope with their fates" (Portillo). In this case, we are watching and contrasting two different character reactions to Okja's fate. In terms of cinematic strategies, it is worth nothing that Mija's grandfather is on the floor during this scene, and Mija is standing above him, by the doorway. These low angle shots contrasted with the high angle shots symbolize not only their contrasting views regarding Okja, but specifically that Mija's values are on a higher moral ground. In writing the scene so that Mija then chooses to walk out of the room, Joon-ho is implying that she is rejecting the idea that Okja's fate should be (or will be) that of slaughter for food.

Joon-ho's films often provide a commentary on capitalism; and so, it is no surprise then that near the end of the film, it is an economic exchange that ensures Okja's survival. Mija, however, refuses to see Okja in terms of economic value until the moment she is forced to by an uncaring, violent system so she can save Okja's life (Sousa 181). Mija finds Okja in the slaughterhouse, being prepared for her slaughter. Prior to this point in the film, Okja had been forcibly raped by a male pig, locked in a small space with little room to move around, and subjected to torture when

the mentally unstable, self-professed "animal lover" Dr. Johnny Wilcox the zoologist tasted samples of her flesh. Foucault's ideas of disciplinary power and domination can be applied to the site of the slaughterhouse. The relationship between humans and animals in a slaughterhouse is marked by violence. As Foucault notes, a relationship of violence, "acts upon a body or upon things; it forces, it bends, it breaks, it destroys, or it closes off all possibilities" (1982, 789). Dr. Johnny Wilcox and the Mirando Corporation are effectively closing Okja off from the possibility of living a life unharmed, with dignity. In order to halt the violence, Mija has to provide Okja with a new possibility – having her life rebuilt. For such a possibility to happen, Mija has to first remove Okja from the threats of the slaughterhouse.

Before Okja is about to be slaughtered, Mija offers a pig figurine made from solid gold to Nancy, Lucy's sister and the new CEO of the corporation (at this point in the film). Nancy is characterized as "uncompassionate, cold, and merely profit-driven" (Zavitz and Kielbiski 102), demonstrated for example when she refers to Okja as an "it" and repeatedly calls Okja her property. It makes sense, then, that Mija needs to accept that Okja is, in this moment, Nancy's property, in order to try and free her from Nancy. Mija offers the gold figurine to her and says, "I want to buy Okja. Alive" (01:45:13). Nancy takes the figurine, remarks that it is "worth a lot of money" (01:46:04), then ecstatically congratulates Mija on her purchase. Gunawan reflects on this scene: "Although Okja was ultimately freed, the 'trade-off' Mija negotiates with Nancy Mirando – Okja traded for a small pig made of gold – reinforces Okja's powerlessness and commodification within the slaughterhouse" (Gunawan 4). Certainly, one cannot deny that Okja becomes a powerless, commodified object in this moment, forced to abide by a human idea that animals are objects to be bought. However, it is still this very act that saves Okja from the slaughterhouse. While Mija being forced to buy Okja is certainly problematic and indicative of

violent capitalism, this does not change the fact that Okja would have been killed if Mija did not buy her. In this moment, the film suggests that the caring thing for Mija to do is buy Okja. In this act, pet, livestock, and genetically engineered commodity intermingle, showing us how, according to Hal Herzog, "it's so hard to think straight about animals" (Herzog 2010). While typically it would not be viewed as caring to treat Okja in terms of economic exchange, the conditions in which Mija is operating force her to be flexible and to consider the fact that to care about and care for Okja, she must start thinking in terms of economic exchange (Sousa 182).

Yet, while Okja's survival is permitted by the end of the film, almost all the other super pigs at the slaughterhouse do not have this privilege. Near the end of the film, when Mija leaves the factory building with Okja after this exchange with Nancy, hundreds of dejected looking super pigs, closely packed together, watch them through a feedlot fence. Two of these super pigs then engineer the escape of a piglet (their baby, presumably), by pushing it through the fence when Mija and Okja draw near. Gunawan calls this moment a "final act of resistance" and draws attention to how "The super-pigs are aware of their fate, contrasting with mainstream narratives that emphasise the docility and lack of spatial awareness of farm animals" (Gunawan 4). As Mija and Okja leave the feedlot with Okja hiding the piglet under her body, they – and the film's audience – hear the cries of the hundreds of the super-pigs left behind. Sherryl Vint says that "If we are to learn to see animals as others who can make ethical appeals on us … humans have to accept that much of what animals may want to communicate to humanity is not what we might want to hear" (Vint 86). What we hear echoed back to us with the sound of their cries is guilt – for human mistreatment of animals, and for the fact that we may not be doing enough to save them from dying in cruel situations such as that one.

Key to Mija's gained awareness is her experience inside the slaughterhouse. Joon-ho asks us to step into the shoes of this fictional child as she enters the slaughterhouse and confronts factual horrors that happen to animals around the world. While it is true that the majority of people will never have the chance to see the inside of a slaughterhouse, "Joon-ho brings Mija, and his audience, into the bright lights of what he calls a 'metallic empire'" (as quoted in Niazi 2017). Images of flesh on conveyor belts, sounds of tools that dismember hanging corpses, and the look of shock on Mija's face, convey the truly horrifying reality for countless 'farmed' animals around the world" (Zavitz and Kielbiski 99). More than just seeing the inside of the slaughterhouse, Joon-ho wants the viewer and Mija to see Okja and other super-pigs in the slaughterhouse clearly being mistreated. In critical theory, "the gaze" is a philosophical term that is used to describe the act of seeing and the act of being seen. The concept of the gaze has been used for the purpose of illustrating relations of socio-political power and how society disciplines and controls the weaker participants. In their work *Practices of Looking: An Introduction to Visual Culture*, Lisa Cartwright and Marita Sturken claim that "the gaze is integral to systems of power, and ideas about knowledge" (94). To practice the gaze is to enter some form of relationship with the subject being looked at. As a viewer of the film, we look at Okja and the other super-pigs, but since they are digital images, they do not, literally, look back at us. However, this is not to say that there is no gaze. In her work on animal deaths on screen, Barbara Creed mentions the "creaturely gaze", which carries "the potential to break down boundaries, to affirm communicability, between human and non-human animals" (Creed 17). Creed further explains that the creaturely gaze "does not erect a barrier between the spectator and the object of the look. It is evoked particularly in response to images of dead and dying beings and in knowledge of the shared finitude of all beings" (Creed 16). Joon-ho presents us with these

images of "dying beings" to invoke compassion and draw our attention to our shared mortality and embodied vulnerability.

Alongside this recognition of shared mortality, it is also difficult to feel guilt-free or without any remorse when we hear the cries of the thousands of super-pigs left behind. Furthermore, Randy Malamud argues that too often in films animals are categorized as good or evil: "In the movies the angels (the good animals) are pets and helpers, adulating their human keepers … The whores are monstrous others, animals who earn our scorn" (75). Okja is certainly not meant to be seen as an animal who "earns our scorn", and she is clearly more aligned with "pets and helpers". Malamud further argues that these types of representations are reductionist: "It circumscribes animals' existence in relation to the human gaze, appraising them only in terms of their usefulness or threat (to us)" (75). Indeed, it may be hard to see Okja throughout this film as a being separate from Mija's gaze. Okja's "usefulness" to Mija, if we can call it that, is fulfilling the role of a companion animal. Yet, I would argue what combats this borderline anthropocentrism is the image and the sound of the crying super-pigs. Viewers are not meant to see the super-pigs as "useful" to them, or as "threat"; rather, we are meant to feel compassion towards their suffering, and recognize "the truly horrifying reality" that Joon-ho wants us to understand. This scene is vital to making us understand that many species of animals are beings capable of suffering, and have lives and feelings separate from how they benefit humans.

Throughout the film, Okja is met with people who want to impede her flourishing and with people who want to give her the chance to flourish. Early in the film, the Mirando Corporation goes to Mija's grandfather's farm to let them know that Okja has been crowned the best super pig. When Dr. Johnny Wilcox, in awe of how healthy Okja looks and how well Okja was raised, asks Mija's grandfather what his methods were in raising her, the grandfather responds: "I just

let her run around" (00:24:54). Indeed, Okja is given lots of space outside to run, play, and carry out the life of a pig. While it is true that she needs to be raised well to eventually carry on her super-pig duty and become meat, by the end of the film Okja and the baby super pig are running around outside; most importantly, this time it is without the threat of slaughter (Sousa 184).

Okja also flourishes by having a compassionate caregiver. As previously noted, while one does not necessarily have to truly care about someone to be in the position of caregiver, Mija does, indeed, care about and care for Okja. Even before Okja is taken away by the Mirando Corporation, Mija shows compassion in many ways; these compassionate acts include removing bur seeds from Okja's paws and treating her body for injuries when she hurts herself. Near the beginning of the film, Mija also shows compassion when she shows great distress when Okja falls off the cliff that she saves Mija from falling off. First, the very choice to depict Okja saving a human does indeed paint her as a "savior", but it is non-anthropocentric choice to have the camera follow her during this scene. Claire Parkinson focuses on Okja and this specific scene in her discussion animal bodies and embodied visuality: "cinematic convention places the viewer in Okja's position following her thinking as she works out how to save Mija" (60). What we see here is that "Agency and intention are bound up in the ordering and use of point of view, eyeline match and reaction shots that invite viewer identification with the super pig" (Parkinson 60). Furthermore, as the two of them embrace, the camera captures Okja's eye, and the gaze exchanged between her and Mija; at this point, the viewer just sees a closeup of Okja's eye. The closeup is a common technique used in cinematography to elicit empathy. Portillo explains that "cinema of empathy" is an approach used "to frame current and future conversations about our engagement with film and its transformative potential" (Portillo 3). With cinema of empathy, "strategies rely on closeups of facial expressions and the affective energy generated by the

aligned bodies on the screen to provide emotional cues" (Portillo 3). What emotions or feelings are supposed to be stirred here?

With this question, let us first consider Jacques Derrida. Considering this close-up of Okja's eye, we can recall Derrida and his cat in *The Animal that Therefore I Am*. When Derrida looks at his cat, and sees her looking back, he is not looking at "Cat" as a representative of the entire species or as a metaphor or an allegory, but at an individual cat (6). The first step in connecting with the Other is to recognize it not as a placeholder of a group or as a symbol. This cinematographic close-up shot of Okja's eye, and the gaze exchanged between Okja and Mija not only provides pathos but emphasizes the need to pay close attention to the individual. This close-up of Okja's eye, along with the shot of Mija whispering in Okja's ear demonstrates to the audience how Mija is looking at an individual super pig with its own subjectivity – not just an animal bred for productive purposes. In these moments of touch, gaze, and senses meeting, we see interspecies communication. Donna Haraway explains that "touch ramifies and shapes accountability" and she emphasizes the importance of "accountability, caring for, being affected, and entering into responsibility" (*When Species Meet* 36). What the gaze between Okja and Mija may be implying is that "worth" does not have to be commodity driven. What is Okja worth to Mija? While Mija is forced to buy back Okja from the Mirando Corporation, it is safe to say that Mija would never sell Okja. In the film's emphasis of how they are looking in each other's eyes, Okja and Mija are connected not by exchange and use-value, but an immaterial bond that wishes to transcend capitalistic limits.

Michelle Gunawan argues that we do a disservice to animals by turning them into pets and putting ourselves in the position of a caregiver. In her discussion of *Okja*, Gunawin argues that owners of companion animals will provide disciplinary training to encourage qualities of loyalty

and obedience, and they will often reward the animals with treats. She draws attention to how Mija throws Okja a piece of fruit after they collect that day's food. As she then explains, "the status of a pet places an animal at special risk. There is a risk of abandonment when human affection wanes, when people's convenience takes precedence, and when an animal fails to deliver on the promise of 'unconditional love'. Were Okja uncooperative, she may not have received the same positive reinforcements from Mija" (5). While Gunawin certainly makes a valid argument in that many owners of companion animals may disown their animal if it misbehaves, there is an important moment in the film where Mija refuses to bring physical harm to Okja, even when Okja is hurting her. While in New York City during the Mirando Corporation's parade, a beaten and temporarily blinded Okja attacks Mija, causing her arm to bleed. In that moment, Jay tries to hurt Okja with a rod to protect Mija. I would argue that Joon-ho includes this moment to demonstrate the complexities of an animal rights group that claims to care about animals but is still willing to harm an individual one. Mija immediately becomes horrified at the idea of Jay hurting Okja and stops him from doing so. In this moment, Mija is clearly aware that Okja is a sentient being with evolving feelings, and that she is entitled to her fear and how she responds to it. She knows that sometimes Okja will do things that she does not like or that misaligns with "good" behaviour, but Mija knows that there will be a reason for that behaviour. While companion animals – and many other types of animals – cannot fully escape a relationship with some level of domination, they can still have a relationship with a human where they are genuinely cared for and where their human companion tries, to the extent that they can, to empathize with them.

While the seemingly idyllic ending of the film – where Okja and the piglet and Mija and her grandfather all live together on the farm on the lush South Korean mountains – may seem

romanticized, it would be unfair to say that the film is suggesting that the characters have completely forgotten about the events that took place. I would argue that what allows them to try and move forward would be their relationships and close bonds with each other. If the domesticated Okja lived in isolation, it is unlikely that she would be flourishing. Many animals are social creatures and cannot properly flourish in isolation. Nussbaum is aware of this, explaining that "for animals, as for humans, the existence of suitable groups and communities is an important part of the flourishing of individuals" (*Frontiers of Justice* 357). Okja, the piglet, Mija, and her grandfather form a community at the end of the film. Similarly, in the *MaddAddam* trilogy, the humans, Crakers, and pigoons form a community as well. While we could argue that the pigoons themselves are their own community, one understanding of the word "community" is not only the sharing of physical traits or a geographical location, but also the sharing of interests, goals, or attitudes. In this sense, the pigoons, humans, and Crakers all share a common interest to live respectfully and harmoniously together. Alternatively, we could see these groups as joint communities that work together to allow each group to flourish. In any event, they cannot easily accomplish this in isolation.

Likewise, genetically engineered animals are too often dependent on the help of humans in order to live out some conception of the good life. As Acquirer and Rehn note, "Okja and Mija are forever changed by what happened. They escaped horror but did not change the system, and they know that the mass production and mass murder of Okja's peers continues. The system has not changed, for changing it is beyond the power of an individual" (526). In the film's final moment, Joon-ho makes an astute decision in having Okja stare directly into the camera, at the audience, for an extended moment; she stares for a while until she is dragged away by Mija. Portillo explains that the employed audiovisual and narrative strategies used in film allow

viewers "to experience emotions not only intensely but also safely", meaning that "What happens before our eyes does not pose a threat to us and does not need intervention" (Portillo 1). While it is true that the film is fictional and Okja herself does not need intervention from the film viewer, Joon-ho wants the viewer to acknowledge the real-world implications. Joon-ho's choice in having Okja lock eyes with the audience, forcing them to participate in the gaze, is a film strategy to try and suggest a need for more humans to care more about animals like Okja – not just the ones who traditionally receive the privilege of becoming a companion animal. In the words of Kari Weil in her work *Thinking Animals,* "As we see an animal who sees us, we confront a view of ourselves we may not have seen and, indeed, may not wish to see. We want to but should not look away" (49). This view of our self is one that is complicit and the feeling that we "should not look away" is accepting some form of responsibility. Furthermore, as Gunawan says, "The juxtaposition of the final scene [with the slaughterhouse scenes], where Okja and the baby pig are seen back on the South Korean farm, reinforces that the slaughterhouse is not the place for a well-loved family companion, or any animal at all" (4). This film's ending suggests that since Mija and Okja cannot make a change all on their own, there needs to be a greater social ethic of care. With a greater social ethic of care, more opportunities can potentially arise for more animals like Okja to live out a life where they are free to flourish.

Towards a conclusion: questioning autonomy

In examining the behaviour driven by biocapitalism that underlies the posthuman relations in both narratives, and how Atwood and Joon-ho critically engage with technoscientific concerns regarding the lives of animals, I have aimed to demonstrate science fiction's capacity to allow us challenge anthropocentric conceptions of who earns the right to survive, and, by extension, live. In also drawing attention to the concept of living or simply surviving, I have

sought to lay out how the genre opens avenues for us to also consider the value of animal flourishing. What we can gather by especially considering the capitalistic drive behind biotechnology is that anthropocentric tendencies are too often favoured in the name of extending or sustaining human life. While these texts do suggest that humanity is capable to also valuing animal life, they also demonstrate the complexities that come with this attempt.

Yet, while perhaps there may be ethically grey reasons why humans genetically engineer animals, science fiction can still suggest to us the importance of paying attention to how animals are too often not treated with enough care and attention. The poor treatment of these animals can say something as well about our own *willingness* to be uncaring. As Warkentin asserts in her discussion of the ethics of genetic engineering,

> … there lurks the ominous promise of our own sensory and moral deprivation. Ultimately, by transforming nature into an insensate, decerebrate, wholly objectified product, devoid of independent well-being, the biotech programme may thus deliver its golden promise by relieving us of care. The mechanization of nature will lead to the mechanization of ourselves, our sentiments, judgments, fears and dreams. (100)

As exemplified by Atwood's *MaddAddam* trilogy and Joon-ho's *Okja*, the depiction of genetically engineered animals in science fiction has the potential to stir an emotional response in us that motivates us to challenge this tendency to relieve ourselves of care. Choosing to pay little to no attention to care can certainly lead us to a sort of "mechanization", where we are unfeeling, and perhaps even desensitized to suffering.

Another significant factor worth considering in this discussion of care practices towards biotech animals is the permission of autonomy. If we can understand that science fiction allows us to evaluate an animal's ability to flourish, does this mean science fiction is also suggesting

that these animals have enough autonomy? In order to flourish and live one's "best life", does an animal need autonomy? Autonomy is a key idea in justice-based ethics, and Grace Clement points out that an animal ethics of care needs to pay more attention to it: "an ethic of care which does not value autonomy tends to result in forms of 'caring' which are oppressive to either the caregiver or the recipient of care" (309). By the end of *MaddAddam*, the humans try to respect the pigoons' autonomy by respecting their wishes and letting them live out their lives in the wild, unbothered by the humans. In comparison, Okja does not have the same amount of freedom, but it would be inconsiderate to claim that Mija does not care for her autonomy.

In the following chapter, I will demonstrate science fiction's ability to draw our attention to how animal ethics of care also needs to consider this justice-based tenant of autonomy. Doing so would allow for a more flexible conception of care. Does our attention to autonomy differ based on the biotech animal's capabilities and specific needs/desires? On this topic, Nussbaum states, "Humans are intervening in animals' lives all the time, and the question can only be what form this intervention should take. An intelligently respectful paternalism is vastly superior to neglect" (2006, 380). If we are going to intervene when it comes to a biotech animal's autonomy, is there a situation where that is ethically permissible? How can we know for certain? The texts analyzed in the following chapter pose these questions.

2.

Cyborg Animals and Bodily Autonomy in Kirstin Bakis's *Lives of the Monster Dogs* and Grant Morrison and Frank Quitely's *We3*

As discussed in the previous chapter, genetic engineering modifies or create new beings. Their differences originate at an internal level: their genetic makeup. Yet, genetic engineering is not the only way humans enact bodily modifications on living beings; turning them into a cyborg is another type of transformation. What is a cyborg? The term cyborg emerged from twentieth century technoscience. The term first appeared in a 1960 paper by Manfred E. Clynes and Nathan Kline, written for a NASA conference on space exploration and arguing for machinic devices to help physically adapt men to survive hostile environments. Clynes and Kline use the term cyborg to refer to any entity that combines the organic and the technological into a self-regulating system. A derivative of cybernetics (which is the study of complex regulatory and purposive technical systems), the term cyborg signifies a system that links biological and mechanical systems.

In contemporary theory and popular culture, the cyborg is not only a physical body, but a symbol for the need to re-evaluate human binaries. In her discussion of the cyborg in science fiction, Veronica Hollinger explains, "the cyborg is a source of both fascination and anxiety as a sign of the increasingly intimate relations between humanity and technology" (273). Haraway examines these intimate relations. Her well-known essay "A Cyborg Manifesto"[19] is a key text in understanding cyborg theory, which can be understood as a related field of posthumanism that includes a recognition of an interconnectivity between humans, animals, and machines. A cyborg, according to Haraway, can be defined as "a cybernetic organism, a hybrid

[19] This text is sometimes referred to as "A Manifesto for Cyborgs", depending on the reprint.

of machine and organism, a creature of social reality as well as a creature of fiction" (149). To Haraway, a cyborg must be more than just its organic and machinic parts; a cyborg disrupts boundaries, such as human/animal, animal/machine, and body/mind. Haraway's cyborg theory pushes for a world of chimeric fusions between animal and machine. Furthermore, she notes that cyborg theory should see us "taking responsibility for the social relations of science and technology" and that this means "refusing an anti-science metaphysics, a demonology of technology, and so means embracing the skillful task of reconstructing the boundaries of daily life, in partial connection with others, in communication with all of our parts" (181). Cyborg theory "can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves" (181). Haraway, however, also sees the term cyborg as a little more nuanced than just a literal intermeshing of flesh (often human) and machine, even suggesting that we are all already cyborgs and "hybrids of machine and organism" (8). For Haraway, the realities of our modern life entail a relationship between people and technology that has become so intimate that it's difficult to tell where we end and where machines begin. However, this chapter focuses on literary representations of *literal* cyborg animals.

It is important not to confuse a cyborg with an android, another common posthuman body found in the pages of science fiction. An android is what we find represented by the replicants in Dick's *Do Androids Dream of Electric Sheep?* Androids are made or constructed by humans and given the appearance of human while having robot-like internal mechanics; in other words, they are humanoid robots. In contrast, we have cyborgs; the cybernetic manipulation of the human body does not necessarily mean that they are no longer human (at least, not on the biological level), but that they now fall into a different category, or sub-species, of human. Some common examples of cyborgs in science fiction include the superhero Cyborg from DC Comics (who first

appeared in 1980), and Richard Morgan's protagonist in *Altered Carbon* (2002) and the television adaptation (2016), a cyborg soldier who changes bodies.

If one were to think about the figure of the posthuman in science fiction, an image of a cyborg would likely be what comes to their mind. Along with this image would be questions revolving around the ethics of using advanced technologies, and what it means to be human. I say "human" here because often cyborgs in science fiction are, indeed, human beings with bodies that have been cybernetically manipulated. Yet, while it is more common to see fictionalized cyborg human characters than to see cyborg animal ones, this is not to say that there are no cyborg animals in science fiction. For example, David Brin's *Uplift* universe (with six novels, published 1980 to 1998, taking place in the universe) depict cyborg animals. The most notable example in those novels is the neo-dolphins, uplifted dolphins with cybernetic enhancements. The Rat Things in Neal Stephenson's novel *Snow Crash* (1992) are attack-programmed guard dogs that are powered by nuclear engines. While both are rich examples of novels that depict cyborg animals, the texts that I will focus on in this chapter are Kirstin Bakis's novel *The Lives of the Monster Dogs* (1997) and Grant Morrison and Frank Quietly's graphic novel *We3* (2004). I choose to focus on these two texts for three key reasons: both texts depict animals that have been turned into cyborgs for military uses, both depict animals that have been uplifted (to different extents), and both offer relationships where we see a potential for care, and also how it can be violated. In this chapter, I consider the novels' engagements with the ethical implications of turning animals into cyborgs for military uses.

While it is not explicitly revealed if the animals in *We3* are genetically modified, it is implied that the dogs in *The Lives of the Monster Dogs* are. Nonetheless, the animals have been

technologically modified in one way that is clearly transparent: they have been transformed into cyborgs. Like the animals discussed in the previous chapter, these animals are certainly biotech animals as well, and the question of how to consider their flourishing is an important one. However, if one is going to question how they can flourish, another important question revolves around the idea of autonomy. In this chapter's analysis of both texts, I discuss what it means for the animals to be allowed to govern their own drastically changed bodies and how the novels suggest or challenge such a possibility. I look at how both texts discuss the bodily autonomy of the domestic animals that were turned into uplifted cyborgs, and how they present narratives where the biotech animal has been turned into a cyborg for human warfare. This chapter focuses on the embodied ramifications and responses that these texts imagine regarding cyborg animals used for warfare and their relationships with humans. I then discuss the cyborg animal's strained relationship to its own body. How are they going to see their own body, now that they can they see that it has been manipulated by material attachments? I then consider how the authors explore what caring could look like in response to the animal's relationship with their body. In her discussion of the speculative agency of nonhumans, Sophia Booth Magnone asks important questions: "Is a bioengineered organism functionally equivalent to one of Descartes's automata, reacting (not responding) according to the scripts programmed into it by the human scientist? Or does its life have a value and a purpose of its own?" (Magnone 224). Building on this discussion, I intend to explain how both works lead us to recognize why care approaches need to take seriously the question of bodily autonomy, even when some approaches may forsake it for the animal's physical wellbeing.

Furthermore, while this is not exactly the case in most real-world applications, science fiction will sometimes depict cyborg animals as uplifted animals as well. To recall, uplift is a

development process that transforms a species of animals into “more intelligent” beings by other, already-intelligent beings. This process is usually accomplished by technological interventions, but any fictional or real process can be seen in science fiction. The earliest appearance of the concept of uplift is in H. G. Wells' *The Island of Doctor Moreau* (1896), as outlined in the Introduction. In both texts, uplift is treated as a transhumanist ideal applied to animals.

It is worth taking some time here to explain transhumanism. Transhumanism, which is often treated as a type of posthumanism, argues that technological and biological modifications to the human body will make the human *better*. Transhumanism proposes that with this improvement, humans with augmented capabilities will essentially evolve into an enhanced new form of the human – the “posthuman”. Some common dreams of the transhumanist include the idea of making the human more intelligent, physically stronger, less disease-prone, and with a longer life expectancy. The transhumanist may even dream of transcending the body completely, envisioning a world where the human is no longer limited by embodiment. What this belief implies is that there is something unique and distinct that equates to the “human”, and it is possible to improve upon it through physical means. Nayar critiques transhumanism, arguing that it “refuses to see the human as a construct enmeshed with other forms of life and treats technology as a means of ‘adding’ to already existing human qualities and of filling the lack in the human” (2014, 6). While transhumanism echoes humanism in some respects, not all transhumanists would argue that only humans can be perfected. Indeed, some transhumanists also believe in “adding” human qualities to animals, an act that may enhance their cognitive abilities and would help them overcome any biological “limitations”. Yet, while these transhumanists may speak for the well-being of animals, what they are essentially doing is

"uplifting" them to be more "human-like". Both authors that I focus on in this chapter not only outline this reality, but critique it through their respective works.

Cultural Examples of Cyborg Animals

Before I outline how we can understand autonomy, I would like to briefly explain the various ways animals can be turned into cyborgs. First, it is worth noting that while there have been plenty of advances in the methods of transforming animals to cyborgs, the practice of fitting nonhumans with prostheses is not novel. Ryan Sweet draws attention to how the novelty of prosthesis-using animals garnered notable attention in nineteenth-century Britain (Sweet 1). Sweet also points out that animals with prostheses were not only depicted in Victorian illustrations and cultural artefacts, but that there is "considerable evidence to suggest that real domestic and agricultural animals were fitted with artificial body parts in the nineteenth century too" and that "From 1783, reports appeared in newspapers and periodicals that described instances where farm animals, usually cattle though occasionally pigs, were fitted with wooden legs following accidents that ended in amputation" (Sweet 2). This history is compelling, especially considering how Bakis' *Lives of the Monster Dogs* depict the dogs being fitted with prosthetics in the Victorian period. Bakis contributes something new to the discussion by also uplifting the dogs to the point of human speech and thought patterns.

In an earlier chapter, I mentioned in passing the existence of remote-controlled animals, also known as robo-animals. Remote-controlled animals are animals that scientists have modified to be controlled remotely by radio signals. Often, electrodes are implanted into the animal's nervous system and are connected back to a receiver. Several species of animals (including beetles, cockroaches, rats, mice, dogfish sharks, and pigeons) have been successfully

controlled remotely. Remote-controlled animals can be used as working animals for military purposes, search and rescue operations, or various other uses. For example, the Defense Advanced Research Projects Agency (DARPA) created remote controlled beetles to be used for military purposes in 2009, by attaching computer chips to their brains, turning them into miniature drones.

Sometimes, however, cyborg animals are also created for frivolous purposes. One key example of this is the RoboRoach, created by the US-based company Backyard Brains. They refer to the RoboRoach as "the world's first commercially available cyborg". The project launched as an available beta product in early 2011, and then was released into production via Kickstarter in 2013. The RoboRoach kit allows users to use micro-stimulation to momentarily control the movements of a cockroach, allowing it to move left or right, using a Bluetooth-enabled smartphone as the remote controller. While researchers at other universities have been attempting to develop their own cyborg insects, the RoboRoach was the first kit available to the public. It was even backed up the United States National Institute of Mental Health, supporting it as a device that could serve as a teaching aid in promoting an interest in neuroscience. What surely comes as no surprise is that several animal welfare organizations, including People for the Ethical Treatment of Animals (PETA) and The Royal Society for the Prevention of Cruelty to Animals (RSPCA) have expressed concerns about the ethical implications of the RoboRoach project.

It is also important to note that there are some cases where the animal is cyborg-ized *not* for human-centered purposes, but for the purpose of animal welfare. Let us recall Winter the bottlenose dolphin, who in 2007 received a bionic prosthetic tail, after losing her tail two years

before when caught by humans in a crab trap. Until her recent death in November of 2021[20], Winter lived at the Clearwater Marine Aquarium, and her new tail allowed her to swim properly. While this action was certainly a generous pursuit, how does one reconcile the fact that Winter was not able to consent to receiving this new tail? Since she was unable to consent, does this mean that the prosthetist, Kevin Carrol, and his team of experts should not have bothered trying to develop a new tail for her? What these questions are essentially asking us to consider is the extent of animal autonomy. Can animals even have autonomy? What are we supposed to think if contributing to their bodily welfare also neglects their bodily autonomy?

Animals, autonomy, and ethics of care

We may often hear statements such as "animals cannot tell us what they want, so we need to decide for them." Certainly, an animal cannot verbally tell us if they want to go to the veterinarian, so we need to exercise our own judgement and decide for them. However, statements such as these seem to imply that animals do not have any thoughts of their own when it comes to their continued existence. Statements like these are also reductive; if we pay close attention to their communications, we can notice that animals often tell us a fair amount about how they are doing. While animals may lack a shared language with humans that allows them to vocalize their decision-making capacity, this does not mean they do not have preferences, ranging from choices in food, living conditions, forms of entertainment, etc.

While animals may not have much autonomy from a legal standpoint, we can still ask ourselves how autonomy can be meaningfully applied to animals. If it can be applied to animals,

[20] Winter's cause of death was complications from a gastrointestinal infection. She passed away in preparation for surgery.

how are we to understand animal autonomy? If animals are self-aware to various degrees, this means they have the capacity to know what they want and do not want. A care ethics approach would ask questions that strive to understand and respect the preferences of other creatures. Ethologists (scientists who study the behavior of animals in their natural environment) are continuing to explore how to understand animal preferences, and how these preferences can be recognized when observing their expressed behaviors. Grace Clement points out that ethics of care has not always given proper attention to autonomy. In contrast, autonomy is an element taken seriously in justice-based ethics, such as deontology[21]. Autonomy can be understood as the capacity for self-governance, "self-determination" (Clement, 2007, 309), and the "respect not only for someone's interests, but also for the individual as the one who experiences the thwarting or fulfillment of those interests" (Tomas 69). As Clement notes, "an ethic of care which does not value autonomy tends to result in forms of 'caring' which are oppressive to either the caregiver or the recipient of care" (2007, 309). Clement argues that care and autonomy can, indeed, be compatible with each other. She argues that if care requires a commitment to nurture the recipient of care the best one can, the "best one can" should attempt to understand the care recipient in his or her terms. Michael Slote's opinion of care and autonomy aligns with Clement's as well. He adds that caring about other people also requires an "obligation to respect" (6); specifically, respecting others means respecting their autonomy. Slote values empathic caring as a method in helping us understand "both our obligation to respect others' autonomy and the conditions under which autonomy itself, understood in relational terms, can be constituted and flourish" (6).

[21] For example, Kant autonomy as a necessary condition for freedom and morality. If an action is not done autonomously, it is not truly morally good or bad.

Moreover, Clement also points out the important fact that autonomy is not always equal in relationships: “in most of our relationships, both parties are not equally powerful, and many of our caring relationships are not freely entered into. For instance, though we may choose to have children, we do not choose to have parents. Why then should we take autonomous individuals as the paradigmatic recipients of care?” (1996, 32). Similarly, our companion animals do not necessarily freely choose to enter caring relationships with us; they do not choose to become a companion animal. And so, as Clement argues, “one of the main reasons we need to care for others is because they are *not* autonomous, and a great many of our caring relationships are with individuals who are not autonomous” (1996, 31). This is not to say that children or animals do not have self-awareness or preferences on how to live out their lives. Rather, they have limited autonomy, either because they do not have the capacity to fully understand what they need for their wellbeing and what that requires (such as medical attention), or they do not have convenient avenues to express their interests to humans (such as human speech).

In her discussion of animal autonomy, Natalie Thomas argues that we cannot dismiss the idea of animals having autonomy only on a basis of morals or a high level of rational capacities. She points out Rachels and Ruddick, who assume that autonomy requires a high-level of mental representations, memory, and imagination. According to them, only under these conditions can free choices be made (74). Thomas explains that under this understanding of autonomy, animals are often denied having autonomy because they are “believed to lack the ability for reflection and evaluation of their actions and choices. They are seen to act only on the basis of first-order

desires, and not on second-order desires[22] which consist of the ability to reflection and evaluate their first-order desires" (74). Thomas believes that there is a gap in this line of reasoning; as she explains "if autonomous action is seen simply as the freedom to act on the basis of reasons, however minimally complex they might be, then autonomy does exist at the level of first-order desires" (75). Animals range when it comes to their level of thought. If one is to only accept a high-level of autonomy, that would mean that many animals would remain outside of human scope of ethical concern. This, of course, is not what Thomas argues for. To Thomas, considerations of species membership is important in order for one to determine the level of autonomy possessed by that individual and learn how to respect it. This is because specific traits and interests would vary according to species membership.

Lives of the Monster Dogs and *We3* both draw attention to how species membership can be slightly altered if the animal is cyborg-ized. The cyborg attachments can certainly influence their interests. As Thomas also explains, the importance of autonomy for animal ethics is that it asks us to consider how to "respect both positive and negative freedoms" (79). It is not always enough to only ensure the absence of suffering, because considerations of one's autonomy would ask us to also consider the positive freedoms of an individual (79). This would mean that an animal deserves "to have a quality of life commensurate with their needs and dignity: physical, psychological, social, and cultural" (Rogers and Kaplan, 196). In the case of animals, how to respect these needs and their dignity is specific to species and *context* – the main context, as discussed in this chapter, is the animal's transformation into a cyborg.

[22] A first-order desire is a desire to perform an action (for example, eat a bag of chips). A second-order desire is less rudimentary and more based on reasoning; it is a desire to have a desire (for example, a desire that I should desire carrots rather than bag of chips).

One could try and make the argument that if animals were uplifted (to possess, for example, human-language speaking abilities) then they would be granted more autonomy. However, in his discussion of animals and transhumanism, Michael Hauskeller argues that this is not the case. Rather, it is to make them "less alien and more compliant" (Hauskeller 33). What may look like autonomy is actually "bestowed on them as a form of appropriation" (33), and uplifting animals is "less about giving nonhuman animals a mental form that finally makes them deserving of equal moral recognition, … but about giving them what they need to recognize us: as their creators, saviours, and, ultimately, superiors" (33). And so, Bakis' novel and Morrison and Quitely's graphic novel encourage readers to recognize this reality of uplifted cyborg creations, and to consider what it would mean to see these animals as beings worthy of their autonomy being respected. Likewise, we also see how respect for autonomy becomes tricky.

Kirstin Bakis's *Lives of the Monster Dogs*

Bakis's novel follows a large group of biomechanically (and likely genetically) uplifted dogs that have been given human intelligence. In the late 1800s, these "monster dogs" were created by Augustus Rank, a once brilliant surgical student turned mad scientist. These dogs were originally created for warfare; in their creation, Rank envisioned an army of warrior dogs fighting alongside the Imperial Prussian army. Rank is then hired to create these warrior dogs. However, the dogs are soon exiled when the work fails to meet deadlines. Rank turns his back on his creations and sends the dogs and his group of fellow scientists to the remote north of Canada, where they establish a town called Rankstadt. Even though Rank eventually commits suicide, the work on the dogs progresses slowly. The first of many dogs, equipped with prosthetic hands, a

voice box, and the ability to walk upright, is created in 1968. Later, a mutt named Mops Hacker, sired by the first prototype of his kind, leads the dogs to violently rebel against their creators.

In 2008, these highly evolved dogs appear suddenly in New York City. The New Yorkers become immediately fascinated with these talking, upright walking dogs, dressed in 19th century Prussian fashions. The dogs are treated as celebrities, are constantly being written about, discussed in the news, and are often invited to talk shows. The present-day chapters of the novel follow college student Cleo Pira, who is commissioned to write a flattering article on the dogs and become their official press contact. She meets and develops a bond with the Malamute "monster dog" Ludwig Von Sacher, who wants to chronicle, in a written work, the tragic history of the dogs and their creator. Ludwig, however, is unable to finish his work, and Cleo goes on at the end of the novel to finish his work for him.

The structure and narrative style of the novel resembles a layered assemblage of documents drawn from over a century and traversing multiple authors. Cleo is the editor of this collection. The novel, titled *Lives of the Monster Dogs*, is Cleo's contribution to the book of the same name that was begun, but never completed, by Ludwig. In Cleo's book, a range of sources help explain the history: Ludwig's research notes and diary entries, excerpts from the diaries of Rank and Mops Hackers, news press clippings about the dogs, the libretto (an opera, written by the dogs, depicting the dogs' rebellion against the humans in the 19th century), and Cleo's own first-person recollections of the time she spent with the monster dogs.

Before closely analyzing how questions of autonomy is suggested in the text, it is first important to briefly consider the significance of dogs, as a species. While Bakis has not explicitly explained why dogs were her animal of choice for this novel, we can begin to

understand the significance of dogs in this novel if we consider the history of dogs and domestication. Even though uplifted cyborg dogs are not a reality, dogs, of course, are, and "the intertwined history of dogs and humans makes the dog a particularly apt figure for questions of attachment, objectification, and agency" (Magnone 230). Dogs were the first species to be domesticated by hunter-gatherers thousands of years ago. Because of their close association with humans, dogs have become adapted to human behaviour and are often deeply dependent on them.[23] This attachment, then, has been conditioned into them. Questions of objectification and agency are especially apparent as well when we consider how dogs have been selectively bred over the years for various physical attributes and behaviours. Breeds of dogs vary widely in size, colour, shape, and fur texture. They are also raised to perform many tasks that assist humans, such as herding, hunting, assisting police, or aiding disabled people. Author Jeff Vandermeer also considers the significance of dogs in an Introduction to Bakis's novel: "We have bred them to work for us and to be our companions in a series of long-term experiments that have occurred over thousands of years. Rank's experiments are just more of the same severe bending of the animal world to our own will, conducted in a bloodier way across a shorter time frame" (Bakis xiii). This "severe bending of the animal world" reveals itself, in the novel, in the form of turning the dogs into cyborgs. Yet, one way of looking at the term "cyborg" is not just to see it as biological body directly manipulated by technology, but also as a stand-in for a hybrid, of sorts. This hybrid can be biological or cultural. Magnone seems to acknowledge this as well: "Every dog is a cyborg of sorts, an animal produced by various technologies of breeding and socialization over thousands of years. How might the agency of such a creature be understood?"

[23] In contrast, many studies argue that cats (another common companion animal), for example, are not fully domesticated the same way dogs are.

(230). Indeed, if a dog is already a hybrid, or some sort of cultural cyborg, what happens when its body is *further* or *literally* cyborg-ized? How might we understand its agency then?

There is an evident violation of care in the very act of turning the dogs into cyborg weapons for human warfare. The reader's first introduction to what happened to the dogs and why they were created is explained in the novel's prologue. The prologue is told through one of Ludwig's diary entries. In this diary entry, Ludwig explains that he is reading the writings of Augustus Rank, who drew up the plans for them in 1882; however, the dogs did not come into being until nearly a century later (4). In his diary entry, Ludwig is also responding to snippets from Rank's diary. After explaining that Rank wanted to create a race of super-intelligent dogs for military purposes, Ludwig also explains that Rank had a "small colony of followers and assistants from whom he demanded obedience, devotion, and secrecy" (4). Ludwig then directly quotes Rank's diary: "*When I am done I won't need the people anymore. The dogs will be my people, perfect extensions of my will. I, who am now one man, will become an army – an army of dogs. They will be absolutely obedient to me. Their minds will be my mind, their hearts will be mine, their teeth will be my teeth, their hands will be my hands…* (4). As Ludwig observes, Rank was a man who desired control and who wanted to transcend the boundaries of his own body. Rank's transhumanist desires extend to nonhumans when he recognizes the futility of human beings. As Ludwig explains, "He demanded obedience from his human followers, but it could never be perfect – there would always be dissenters, people who questioned him. Humans could not be perfect extensions of his will. But we could" (5). In one of Ludwig's later papers, he explains that the intelligence of the dogs "was to be enhanced in order to enable them to understand complex orders and battle plans" (115), and their mechanical arms and speech-synthesizing apparatuses were given to them so they could handle weapons and communicate

with others in battle (115). Magnone argues that while the dogs were certainly created to be exploited as military weapons, Rank also desired a "servitude mixed with utter devotion" (275). This desire for "utter devotion" can especially be understood when we consider the fact that he chose *dogs* to be his military weapon. As Ludwig notes, "No human loyalty can equal the fanatic devotion of a dog" (5).

Even though Rank dies before his project can come into fruition, many of the dogs struggle to separate themselves from Rank and the dreams he had for them. At Rankstadt, now that there are no battles left to fight, the dogs are no longer being used as military weapons. However, these origins, placing them into roles where they are figures of servitude, still shape how they are viewed by the humans. Even though they are super-intelligent and equipped with voice boxes and prosthetic hands, they are recruited to carry out mundane tasks of domestic workers. While being used as objectified pawns for the military (when they were once dogs who did not concern themselves with such human-centric matters) is not a role necessarily worth revering, it is the history and mythology surrounding Rank that feeds the dogs' hurt sense of pride. As Ludwig writes, "We knew no other life, but we were also aware that we had been created for a higher purpose. We knew Rank had better ideas. And we waited for him to come back – to come and take us away, lead us to battle, to some great, undefined victory" (10). The irony here in the dogs turning to the stories about Rank in order to "lick their wounds" (bring a sense of comfort to their damaged dignity) is the fact that Rank did not create them with any ethical intention in mind. At no point does Bakis suggest that Rank cared about their comfort. Rank not only creates the dogs to be military weapons, but he expresses a need for them to be extensions of himself, even beyond death, sharing the same mind, heart, hands, and teeth (4); in other words, Rank cannot and does not care about the dogs themselves if what he truly desires

are mirrors of himself. What is also concerning about the dogs' idolizing Rank is the fact that, as Clement points out, not every caring relationship is entered into willingly. It is true that Rank did not provide the dogs with care, but his role as their creator still implies that he has the responsibility to provide them with such. Yet, the dogs did not willingly choose to have their bodies manipulated and to be used as weapons.

While one may make the argument that the dogs are now practicing autonomy because they are the ones choosing to look up to the stories about Rank, it is worth questioning if this is truly an autonomous action. Clement explains that there are social conditions for autonomy: "An individual cannot be said to have control over his or her life without some degree of social power, or ability to carry out his or her decisions" (1996, 24). The battered woman, for example, may not have the physical or mental ability to escape her situation, because she does not feel a secure sense of social power (24). Likewise, the dogs may not know how to access any solution other than clinging to Rank as a means for sustaining them identities. The concept of autonomy, then, should also include "social conditions that influence the relative capacity of persons to set their own courses; or to do what they decide to do" (1996, 25). Only paying attention to literal coercion as a violator of autonomy means ignoring "a great deal of the factors that influence people's ability to determine their own lives" (1996, 25). With the dogs' excessive prioritization of Rank's stories, Bakis suggests that the dogs are greatly influenced by this when evaluating their own lives.

Furthermore, the dogs are also purposely left ignorant as to what, exactly, happened to their bodies during their modification. While Ludwig is aware that they had operations to equip them with prosthetic hands, he also explains that it has never been confirmed for certain if the

dogs had brain surgery performed on them to make them more intelligent. As Ludwig explains in one of his papers, "We dogs never knew, while we served our masters in the town or afterward, how our own brains were manipulated to make us more intelligent. … we were never given any information about what was done to us in the great laboratory" (134). It is safe to say that the dogs, now super-intelligent and able to communicate in a verbal human language, would understand if humans explained to them what, if anything, was done to their brain. Yet, as Magnone argues, "The capacities that make them exceptional animals—high intelligence, language and speech—do not suffice to earn them human status, but rather function only to make them better instruments for humans" (225). Rank, and his team of followers, are not uplifting the dogs and turning them into cyborgs so the dogs can be treated as if they were humans worthy of respect. Rather, Magnone's choice of the word "instruments" highlights their objectification, and how they have been created to function like humans for the purpose of the "worthy" humans who are treating them like slaves. Since they are only seen in terms of use-value, these humans would not see any need to keep them knowledgeable about their actions – even if these actions directly affect the dogs.

These complicated origins, where they are objectified, exploited, and kept in the dark about what was done to their bodies, leads to the dogs continuously demonstrating a strained relationship to their own bodies. This fractured relationship should come as no surprise since the dogs are aware that they were created for a specific purpose. In the diary entry in the novel's prologue, Ludwig explains that he has been sniffing photos of Rank, and his old personal documents, but admits that while there is perhaps a residue, there is no trace of him anymore. He writes, "Do I think that being able to smell him would help me understand the history of my face? What is it that I am trying to find out?" (5). As previously mentioned, Ludwig does not

know, for certain, how he and the other dogs were created. His desire to uncover the history of the cyborg dogs and his inability to pinpoint what it is exactly that he is trying to find out is driven by the fact that he was engineered without consent. Afterwards, even though he is fashioned to have enough intelligence to understand, he is purposely left ignorant about the details of the engineering. Vandermeer, in the novel's Introduction, outlines why it is to be expected that Ludwig would feel insecure about his new body: "the disconnect the dogs feel from human life, even as they try to mimic it, comes not just from feeling set apart in society, unintegrated with it, but because the way their intelligence was created works against the theories behind biomimicry" (Bakis xiv). Biomimicry refers to the imitations of natural biological designs or processes in engineering (Merriam-Webster). As Vandermeer further explains, "When dogs like Ludwig von Sacher begin to fail in this environment, the failure is both societal and formative" (xiv). These dogs need to have the intelligence and dexterity of humans in order to carry out Rank's wishes, but they also need (according to Rank) the loyalty and devotion of dogs. Not properly human and not properly dog, Ludwig internalizes this "failure" and is unable to acquire the knowledge he needs to make sense of his self and his body.

Knowing the purpose of why they were created is the only knowledge that Ludwig and the other dogs are given access to. This awareness of their purpose "proves both empowering and coercive. To have a purpose is to be important, to have a meaningful destiny; at the same time, it is to be enslaved to that destiny" (Magnone 231). When Ludwig, for example, realizes that he will never be able to carry out his purpose, he is enslaved to a feeling that he is not enough. He even cannot find any solace in the idea that perhaps he is similar to a human being. In one of his diary entries, Ludwig explains that he prefers to live alone, separate from the rest of the dogs. He finds their insistence on wearing Prussian-inspired clothing (that they stole from the closets of

the humans in Rankstadt) embarrassing, and he is ashamed of what he sees as a lack of proper self-awareness on their part. As he writes, “They know that they are monsters, but I believe they do not really understand what that means … they aren’t aware of the mixture of amusement and revulsion people feel at the sight of Pinschers and Rottweilers stepping from a limousine, dressed like nineteenth-century Prussians … They will never be seen as anything but caricatures of human beings” (7-8). This diary entry seems to suggest that Ludwig is, whether consciously or unconsciously, hinting that what is “monster” is not properly human. Furthermore, Ludwig is aware of his status not only as an animal, but as a cyborg animal. The ability he has to feel shame over the fact that the dogs will never be anything more than caricatures of human being is only there because he was manufactured to have human-level intelligence. It is safe to say that prior to his modifications, Ludwig would not have felt any shame over such matters. Moreover, his human-level intelligence allows him to recognize anthropocentric mindsets that may go unsaid in the faces and stares of the humans who see them around town.

Ludwig’s strained relationship with his body also affects his interactions with Cleo and his assumptions about her and how she views him. Midway through the novel, Ludwig invites Cleo to have lunch with him at his home. In a conversation they have before they sit for lunch, Ludwig tells Cleo, “The whole world … is yours, in a way that it can never belong to me. You do not understand this” (71). Ludwig is acknowledging that Cleo, being a human, has more freedom and is more autonomous because the world allows it; it is the world that grants her more freedom and autonomy. In a scene immediately after, when they sit down to lunch, Cleo watches Ludwig with fascination at how he uses his tail to hold himself in place while reaching for a breadbasket; she writes, “he flipped his tail upward to hook it under one of the horizontal slats in the back of his chair, to keep himself from falling as he leaned over to get the silver wire basket”

(72). When Ludwig catches Cleo watching, he decides that she is laughing at him. When Cleo denies it, explaining that she was just noticing how he uses his tail, Ludwig insists that she was: "How could you do anything but laugh at me? It's alright … I can imagine what I look like to you. It's awkward, and I don't do a very good job" (72). Ludwig's insecurity about his own body – cemented by his lack of autonomy before, during, and after its modification – makes it easy for him, in this moment, to not be able to distinguish between a human's benevolent curiosity and their ridicule. Ludwig's fear of laughter is echoed again in a later scene in another conversation with Cleo. This time, Ludwig is talking about Klaue, another one of the dogs: "How can Klaue stand to parade his hideous body in front of the world this way? Every day he finds a way to get more attention. I would rather die than be seen by so many people" (122). When Cleo insists that the dogs are not hideous, Ludwig patronizes her for being naive: "Don't you know that most of the world is laughing at us?" (122). Even though Ludwig is certainly correct that many people likely are laughing at the dogs, Bakis chooses to characterize Cleo as a human who genuinely appreciates the dogs and chooses not to ridicule them. This choice cannot go unnoticed because it suggests that possibility of a more compassionate mindset toward human live creations that had no say in the matter of their modification. Regardless, Ludwig's inability to see his body as something other than repulsive hinders his ability to fully accept the care and affection that Cleo wants to offer him. Thus, his origins greatly influence how he perceives his own autonomy.

While at first Ludwig starts to wonder if he should stop worrying himself over not knowing what the dogs' new purpose is, this question is brought to the forefront again when he learns that there is an inexplicable disease affecting many of the dogs. This illness is first alluded to in the Prologue, where Ludwig writes, "I've recently developed an illness, or psychological disorder, which comes on periodically and may soon prevent me from working" (3). This

disease, or psychological disorder, manifests itself in the dogs briefly blacking out and reverting to "dog-like" behaviour; this behaviour includes growling, defecating in the house, biting furniture, an inability to make their own meals, and, of course, a loss of human speech. When Ludwig awakens from these blackouts, he feels shame at the realization of what often happens during these blackouts. After waking from one of them, he writes at the start of one of his diary entries, "I am alone in the world, a ludicrous animal" (85). He further explains his distress when he woke up from his blackout and noticed the feces in the corner of his apartment and the torn-up furniture: "I howled like the dog that I am, and I couldn't stop myself. I don't know how I can live now – a dog can't live by himself in his own apartment. What will I do, hire someone to walk and feed me when I relapse? Of course, hiring someone is a ridiculous idea now: they would only put me on the street and take my money – what could I do about it?" (86). Ludwig is painfully aware of the lack of autonomy he would have if he were *just* a dog. While certainly already aware of his lack of autonomy, his human-level intelligence forces him to recognize that "regressing" to the point where he is behaving like a dog-like instead of human-like would rid him of all that he has. He does not trust the possibility of entering a caring relationship with someone he hires, because he believes the likely scenario is that they would take advantage of his lack of autonomy.

This illness, and how it forces Ludwig to confront his mortality, is another reason why he is not able to separate himself from the mythology of Rank. Ludwig believes that the illness is connected to the gradual disappearance of Rank's spirit. Rank himself refers to his immortal spirit in one of his diary entries: "*although I cannot extend the life of my body, I am now more than ever convinced that my spirit will not die with it"* (9). Furthermore, in the words of Haraway in her Cyborg Manifesto, "Unlike the hopes of Frankenstein's monster, the cyborg does

not expect its father to save it through a restoration of the garden—that is, through the fabrication of a heterosexual mate, through its completion in a finished whole, a city and cosmos" ("A Cyborg Manifesto" 151). Yet even though Ludwig does not have any realistic hopes that the monster dogs will ever be part of a "finished whole", he does carry dreams of saving the dogs, and at least prevent them from regressing. Ludwig seems to believe that if Rank's spirit does start to die, then that will also lead to the dogs' downfall. As he explains in one of his later diary entries, "If I am correct in my belief that my disease is connected to the disappearance of Rank's spirit, and if other dogs are also beginning to experience the same symptoms, it may be that my work could save all the dogs, even though they don't yet understand its importance" (87). As Magnone observes, while Ludwig may dread the moments when his body reverts to dog-like behaviour, "Ludwig dreads his own death less than the collective death of his species, and hopes more keenly to save his race than to save himself" (Magnone 274).

In the words of Haraway, "The cyborg does not dream of community on the model of the organic family" ("A Cyborg Manifesto" 151). What is interesting to note is that Ludwig's idea of what it means to "save his race" means saving the *cyborg* dog race; it does not mean finding a solution to allow the dogs to live safely if they do all revert to dog-like nature and lose all of the "human" in them. To "save his race" specifically means to keep the race tethered to human-intelligence and human-ability as much as he can. Ludwig exists within a complex uncertainty, where on one hand he is ashamed of his cyborg body, but on another, he cannot fathom losing the similarity he has to humans *because* of his cyborg body and what it allows him to accomplish. In a conversation he has with Cleo, he admits that he "very much wonder[s] what it would be like to be human" (225). In Hauskeller's discussion of animals and transhumanism, he explains that people who agree with transhumanist dreams are aware of their animal (corporeal)

side and believe that to be the best human they can means completely overcoming it. In his words, “The human is here figured as the better animal (precisely because we are less animal ….), just as the posthuman is figured as the better human (because they are less animal even more)” (30). This is precisely the mindset we see in Ludwig – he realizes that the human is the “better animal” and the only way for him to feel human is to be posthuman (or, if we may, post-animal). Ludwig does not want to wonder what it would be like to just be a dog again, because he equates being a dog with a sort of undesirable deficiency: “Being a dog is nothing. Literally. It is nothing but an absence, a negative. If we had been soldiers, perhaps … but that is finished. Perhaps if I were human, I would be a painter…” (225). It seems, then, that Ludwig believes what is best for him (and the rest of the dogs) is that they eliminate as much of their animal-ness as they can, and that “The enhancement of the animal lies in its elimination; the only good animal is an ex-animal” (Hauskeller 30). In Sherryl Vint’s words, “The dogs experience their own being as monstrous because they are so shaped by the molar identities of human and dog that they now relate to their own dog qualities with shame” (*Animal Alterity* 64). This shame that Ludwig feels forces him to deny his dog-like qualities.

The lack of care in Rank’s creation of the dogs is evident in many ways, but it is also apparent in how it results in the dogs not only feeling insecure and dependent, but a sense of shame towards their dog-like nature. Before their modification, the dogs would not have any reason to constantly feel ashamed of their species. While it is hard to say with certainty whether the shame that the cyborg dogs feel would ever be able to go away, Bakis shows how engineering these super-intelligent dogs for a human agenda and then never explaining to them what happened to their bodies can certainly amplify their sense of shame. As Hauskeller notes, regarding the uplifted animal, “The ex-animal apologizes for behaving like an animal. The

uplifting process was meant to civilize and discipline it, and when it falls back to its animal ways it needs to be disciplined again by being reminded of its status, its precarious and paradoxical position as the animal-it-was-but-no-longer-is" (Hauskeller 34). Such a statement may remind us of the Beast Men in Wells' *The Island of Doctor Moreau* who had to be disciplined by Dr. Moreau when acting too animal-like. In Bakis's novel, it is not just the humans providing this discipline, but the dogs themselves. Ludwig does not want to *just* be a dog, but when his illness takes control and he starts to act like one, he then punishes himself with self-degradation. Depriving the dogs of proper care and robbing them of any sense of autonomy has allowed the humans to condition the dogs to be complicit in their own discrimination. They reveal this complicity by also adapting a Cartesian outlook that associates the human with the mind, and the animal with the body. They associate the "dog-life" with the physical life, and the "mental life" with the human part of them (Roy-Faderman 84). Ludwig worries about reverting to his dog self not only because of shame, but because he thinks it will result in him losing his mind (Bakis 160). Other dogs feel this way as well; as Burkhardt (one of the dogs) tells Cleo and Lydia (another one of the dogs), "No matter what they have done to our brains, we're still dogs, and the smell of blood does something to us" (163). This engagement with the dualistic hierarchy (placing humans and the mind at the top and animals and the body at the bottom) is what hinders Ludwig, and many of the other dogs, to feel properly motivated to exercise care towards themselves, and wholeheartedly accept care from others.

These cyborg dogs are aware that bodily autonomy is denied to them because of where they stand in a social hierarchy among humans. For example, in a conversation between Cleo, Lydia, and Burkhardt, Burkhardt expresses his awareness of human privilege. When discussing how some of the humans think the dogs should be brought to justice for rebelling and killing the

human workers/masters while they were living at Rankstandt, Burkhardt points out the many different levels of human hypocrisy. As he first explains, "I personally think it's ridiculous that in a place where dogs are killed by the millions for no reason whatsoever and humans are allowed to kill each other *en masse* in wars, … it's ridiculous that anyone would feel we ought to be brought to justice for settling our own in Rankstandt" (164). Burkhardt then notes that the reason the dogs are being judged this way is because they are not human: "If we were humans who had rebelled against an oppressive government in some tiny country, no one would blame us, or even care, most likely, but as we are dogs who have killed humans…." (164). Here, Burkhardt is aware of their lack of social power.

One could try to argue that the dogs, in choosing to revolt against the humans who were their creators, captors, and masters, do exercise their autonomy. Magnone considers their decision to rebel against the humans: "in their complicated relationship to the human race, they prove to be more than instruments of the human will. Indeed, the very question 'what are we for?' bellies the dogs' intended purpose: distracted by their existential crises, they are not the perfect objects (of warfare or science) that their creators had in mind" (Magone 231). These dogs certainly do prove that they are more than just the obedient slaves/war machines that their masters and creators hoped for. However, they prove this by murdering the humans. While it may be hard to blame the dogs for this action, since it can be viewed as a necessary act for their survival, I would argue that what we see here is them participating in a no-win situation: they could stay at Rankstandt and waste away their meaningless lives in slavery, or they could kill their masters and essentially replicate the harm and violence the humans inflicted on them. It is hard to argue that the dogs truly do have autonomy in this moment, because they are not given much of a choice. Later in the novel, the dogs put on a libretto at their home that tells the story of

their time at Rankstandt. A line in the libretto depicts Lydia leading the surviving dogs away from Rankstandt, singing “We can be our own masters” (216). Yet, even as they attempt to be their own masters, it is hard to determine just how autonomous they are in their decisions.

Klaue makes it clear to Cleo that he and the other dogs want to be the masters of their own destiny when it reaches the point where they are too far gone with their regression. He explains to Cleo that they have an arsenal in the castle to protect themselves in case the humans, knowing that they have “lost their minds”, try to break in. In a meeting with all the dogs, Klaue gives a speech, convincing the dogs to all move into the castle and unify, and explains his plan for the arsenal. He expresses his worries if a group of humans break in and try to take them away from their home: “If some of us are sane, we can perhaps protect the others, but if there are none left – then what? We can be in their laboratories and hospitals, and we will live on there, helpless, alone, humiliated. We may long for death, but they will not allow it” (179). The plan, then, is for the dogs to kill each other at that point and kill any human that tries to get in their way. This sentiment of this plan is evident as well a little later in the novel when Ludwig expresses his desire to commit suicide rather than risk the chance of losing his mind completely.

While the decision for Ludwig to commit suicide makes sense to himself, and other monster dogs (such as Lydia), Cleo has a hard time accepting it. Because of this difficulty, she thinks of a plan to try to prevent him from killing himself, which includes locking him in his home and removing things from the house that he may use to try to harm himself (Bakis, 227). When Cleo asks Lydia her opinion of this plan, and even asks her if he should be allowed to kill himself if that is what he wants, Lydia’s response empathizes with Ludwig: “Ludwig and I belong to a different race of creatures than yours. We are dying out, and you know that. Even if

we all live to old age, there will never be any more of us. Perhaps you cannot understand his despair, but I can" (227). Lydia's latter statement especially emphasizes the key issue at play, which is that Cleo cannot understand Ludwig's suffering. She even tries to justify her decision to stop Ludwig from taking his own life by framing the very idea of her permitting it as something preposterous: "Did he think I would let him die? He must know that I wouldn't …. He must know" (230). Yet, when Ludwig realizes Cleo's plan, and tells him that she "will not allow [him] to kill [himself]" (234), she begins to doubt the ethics of her idea when she notices the fear written on Ludwig's face. Ludwig is described as "silent, eyes wide, muzzle narrowed with fear, whiskers straining forward" (234). Nonetheless, even though Cleo recognizes that her decision is "wrong" and that it "had been a mistake", she sees it as too late to go back on her plan since other Monster dogs have arrived at Ludwig's house to help her. Even though Cleo is one of Ludwig's best friends, her affection for him becomes overbearing when she fears that she may lose him. The irony here is that Cleo does end up losing him anyway. Soon after locking him in his house, Ludwig cannot take feeling like a prisoner in his home and jumps out a window. While he does not die from the fall, he is badly injured. To Cleo's knowledge, he spends his final days in the hospital writing her letters, until he eventually disappears from the hospital. It is explained in the Epilogue that while he demanded to be released, he never returned to his apartment, and it is left unsaid whether he went off to die or if he perhaps left the city.

Here, Cleo's form of care ultimately disregards Ludwig's bodily autonomy. She questions the decision making of the other Monster dogs as well when she learns that they are going to shoot each other in the castle. As Magnone notes, "She loves the dogs so much that she would keep them alive against their will: her love authorizes her, she feels (as a friend, and as a human companion to a dog), to 'allow' Ludwig to live or die" (278). Yet, this authorization that

she takes upon herself to dictate Ludwig's life leads to his feeling of isolation, which soon leads him to jump out a window. One could hardly say that Ludwig is showing autonomy in this moment because this action is triggered by his autonomy initially being hindered by Cleo. As Clement notes, "the absence of coercion is not a significant condition for autonomy. A choice may be uncoerced yet motivated by ignorance, inner compulsion, or alienation such that the action does not truly represent the agent whose action it is" (23). While it is hard to argue that Ludwig is ignorant or acting out of an inner compulsion (since he has been considering suicide for a while), he is certainly alienated in these moments of being a prisoner.

The love that Cleo acts out of when she takes Ludwig's life in her own hands shows her "mix[ing] love and the violent mechanisms of control" with an attachment that is "possessive, threatening to turn her friends into objects stripped of autonomy" (Magnone 278). In the words of Maria Puig de la Bellacasa in her discussion of care and the more-than-human, a lack of care "allows unraveling" and "To care can feel good; it can also feel awful. It can do good; it can oppress" (1). Even though Bakis wants readers to see that Cleo's intentions may be well-meaning (since she just wants her friend to live), her actions also imply to him that he is not his own person. As Magnone also explains, "It is tempting to turn to love as an affirmative force, an antidote to violence; approaching the other with love, one might hope, produces a tenderly friendly encounter. But even between humans, love is difficult to extricate from self-interested possessiveness" (278). In other words, Cleo's intentions are not properly understood by Ludwig, because to him, the loving thing to do would be to allow him to die. Magnone asks an important question regarding the Monster dogs: "For creatures designed by humans to fulfill specific functions, what are the possibilities of living life on their own terms, of mattering as beings as well as tools?" (231). For Ludwig, does "living life on [his] own terms" mean choosing when to

stop living? What if Cleo's way of showing that Ludwig matters as a being is by forcing him to live? In a standard, real-world scenario, one's companion animal, near the end of their life, cannot clearly voice whether they want their life to end; it is their human owner who must decide when and if to consider end-of-life options, so they can provide them mercy and lessen their suffering. Ludwig, however, is certainly not a companion animal, and is able to directly express, with human language, how he is feeling. Yet, we cannot forget that autonomy is always partially conditioned by society: "We will always be affected, either subtly or blatantly, by social powers and relationships. Our will is continually swayed, to some extent, by the expectations, needs, and responses of others. These forces continually drive us to make choices which we would not make otherwise" (DuVal 21). Ludwig's feelings of suicidal despair are driven by the fact that society has taught him that to be a dog is to be "nothing" (225).

On the other hand, I would argue that Bakis does not want readers to neglect the fact that Cleo, while having questionable methods, has been trying to emphasize to Ludwig that he is not "nothing." Cleo has been trying to establish a caring relationship with Ludwig. Also, as is mentioned early in the novel, Cleo has a pet dog, a fact that Bakis likely includes to characterize her as someone who appreciates the company of animals – even if they are not cyborg-ized or speaking in human language. Based on Cleo's characterization, Bakis give the reader no reason to suspect that Cleo would abandon Ludwig if he lost his "human" side and reverted to a dog. As Gordon DuVal notes, "autonomy cannot be divorced from the relationships, dependencies, and emotional claims of others. … autonomy is not simply about oneself. Autonomy cannot claim to be independent self-rule." (21). As he further explains, regarding autonomy and suicide, these decisions are "very often not fully informed, in the sense that the person does not fully appreciate the possibilities of physical or emotional/psychological recovery" (17). Cleo certainly cares

about Ludwig, but I would argue that she does not properly care for him because she never provides him with any reasons as to why he should consider living. Instead, she tells him she cannot allow him to die, but never offers any information or hope that he will emotionally recover from his current despair. This is why, when it comes to big decision-making, the relationships we have with others are important. Leslie Bender argues that this importance can be reflected in a care-based ethic: "Self-governing in an ethic of care does not mean governing alone by abstract reasoning and distant observations, but means choosing options with respect to responsibilities, relationships, conversations, and dialogues with others" (10). The novel suggests that the question of whether Cleo is ethically right to try and stop Ludwig from killing himself does not have an easy answer, since it exposes how the recipient (in this case, Ludwig) can feel as if they have no autonomy at all. Yet, what is safer to say here is that Bakis has set up Cleo in a way where the reader could easily expect Cleo, because of her caring friendship with Ludwig, to first allow Ludwig access into these conversations and dialogues that would allow him to make a more informed decision.

While Cleo, unfortunately, never gets to have this type of conversation with Ludwig, she finally demonstrates a form of care when she respects his wish to have his story written and even assists in making this a reality. As the reader learns early in the novel, Ludwig is working on a manuscript to capture his origins and the life of Rank. Of course, Ludwig does not finish his project because he disappears before it is finished. However, the Preface of the novel is a letter written by Cleo, where she explains that the novel the reader is about to read is an assemblage of many different texts, including Ludwig's diary entries, Rank's diary entries, letters addressed to her from Ludwig, and Cleo's own words for contextualization. She explains that she took the fragments of Ludwig's work, put them in order, and then added her own story narrating her time

with the Monster dogs. I would argue that the fact that the novel is told as an assemblage, and that Cleo chose to deliver Ludwig's story as an assemblage of many different works, is significant when we consider discussions of care, community, posthumanist assemblages, and interconnected modes of becoming. Haraway's "A Cyborg Manifesto" attempts to dismantle dualities such as man and nature, man and machine, and man and woman. In her words, "We do not need a totality in order to work well. The feminist dream of a common language, like all dreams for a perfectly true language, of perfectly faithful naming of experience, is a totalizing and imperialist one. … Perhaps, ironically, we can learn from our fusions with animals and machines how not to be Man, the embodiment of Western logos" (173). Haraway has asserted that cyborg politics is often about the struggle against "the one code that translates all meaning perfectly" (176); Bakis' and by extenstion Cleo's choice to format the book in a way that prioritizes many voices is an acknowledgement not only of how we are easily influenced by others, but also of how partial knowledges, rather than a sense of totality, is key to feeling a sense of community. Cleo's decision to finish Ludwig's work not only means she values his voice and sees the importance of it being in the world, but her offering of her own contextualization within the novel, where she allows readers to see the dogs not as monsters but as individuals and her friends, shows her demonstrating "how not to be Man, the embodiment of Western logos" (173).

While she notes that even today new movies, books, and documentaries are being released about the Monster dogs, she hopes that the fact that she knew them personally, and had a close relationship with them, can provide authenticity: "But I knew the monster dogs and I loved them, and I hope that, in my own way, I have done a good job of telling their story. I meant to" (2). By pointing out that she loved them, Cleo asserts the importance of affectionate,

intimate relationships when it comes to care. In pointing out her "hope", Cleo's approach to authorship is humble and caring. As Magnone explains, "Her aim is not so much to 'author' a story as to do what she can to help it emerge; she is more medium than author of the fantastic story of the dogs" (248). Bakis shows Cleo's willingness to help the dogs even early in the novel; after all, she meets the monster dogs when she is hired to write an article about them for the newspaper. Cleo, then, uses authorship to become closer to the dogs, and to try to understand their world. Early in the Preface, she explains her initial reluctance to tell the story of the monster dogs; while she always wanted to finish Ludwig's manuscript, she wanted to do it "slowly, and well" (1). The humility in her Preface suggests that she knows that she is not the master author, and she knows that there will be limits to her telling of the lives of the dogs, since it is not just *her* story – it is also theirs. And so, as Magnone notes, Cleo "inhabits the role of an author only to change it, to open it up to possibilities beyond the limits of human language and propriety" (249). She is asking the reader, then, to accept that there may be elements of the story that they are unable to understand completely, beyond human comprehension, but to also accept that the story and authorship of Ludwig is still valid. In finishing his story with love and close attention, Cleo's final act for Ludwig ultimately demonstrates care; she recognizes that it was his choice for his story to be told and assists in sharing his story with the world. Josephine Donovan, in her aesthetics of care, explains that "Art and literature, indeed, are the primary means by which the suffering body finds expression" (89). Cleo recognizes that Ludwig's wish to write out his story was a way for him to find some relief from his strained relationship to his body, and for him to try and make some sense of the body he has. By assembling his work and sharing it with the world, Cleo's message is that Ludwig's – and the rest of the monster dogs – hopes and

choices should be taken seriously and respected to all possible extents. This action – of respecting the lives of cyborg animals – is further exemplified in Morrison and Quietly's *We3.*

Grant Morrison and Frank Quietly's *We3*

We3, written by Grant Morrison and illustrated by Frank Quietly, began in 2004 as a three-issue comic book mini-series before being published all together as a paperback graphic novel by the Vertigo imprint of DC Comics in 2005. *We3* follows three domesticated pets that have been turned into cyborgs by and for the military: a dog named Bandit, a cat named Tinker, and a rabbit named Pirate. Morrison and Quitely's work show how biopolitical capitalism reconstructs these animal bodies into weapons, under the pretense of saving human lives. These animals (before the start of the graphic novel) were stolen from the owners by the government and turned into cyborg weapons for the purpose of warfare. The graphic novel begins in *media res,* where these cyborg animal weapons are given their last assignment, before the military plans to put them down (since they are no longer serving their purposes properly). However, before they can be terminated, Dr. Berry (the scientist most involved with the project) allows them to escape. The rest of the narrative follows them on the run, trying to avoid being captured and killed by the military. While Pirate dies midway through the graphic novel, Bandit and Tinker manage to successfully escape by the end. Bandit and Tinker are then taken in by a kind homeless man who removes what is left of their cybernetic attachments and enhancements.

We3 is the second (and final) work of a visual medium that I look at in this dissertation. However, unlike the film *Okja*, *We3* directly connects the visual medium with the written medium. In *Understanding Comics,* Scott McCloud argues that comics require a certain degree of collaboration between the reader and the creator. McCloud explains that part of visual iconography is understanding that "icons" (drawings or symbols that appear in comics) require

"our participation in order to make them work" (59). Depicting a simple image of a face – a circle, two dots for eyes, and a horizontal line for the mouth – in a panel, McCloud explains, "There is no life here except that which you give to it" (59). It is the job of the reader, as well, to "create and recreate" the subject represented in the image "moment by moment" because the medium demands audience involvement (59). In her discussion of *We3,* Skye Cervone compares science fiction novels to science fiction graphic novels and argues that the latter can also allow readers to experience animal subjectivity in a different way. As she explains, "When the point of view characters are animals, readers are given a chance to actively experiment with animal subjectivities and identities, giving comics a unique ability to encourage readers to empathize with nonhuman subjects because the medium forces the reader to use the self to create a fully realized subject" (44). While we could argue that a science fiction novel may also provide us with point of view animal characters (perhaps even in first person) the main difference is found in the accompaniment of images.

The bridge between the visual medium and the print medium offers the reader a high chance of recognizing the animal's subjectivity. For example, as Marc Singer observes "When the animals break out of the facility they also break free of the tight focus and oppressive repetitions of the panel grids, flying into a double-page spread and luminous night sky" (210). This tight focus and oppressive panel grid repetition is seen in the few pages before the double page spread; here, the pages are each split into 18 tight panels, where the animals are hardly seen and barely in focus (30-35). In the double-page spreads that immediately follows the previous tight panel where the animals broke out of the facility, Bandit and Tinker take up the spread, souring in the starry night sky, away from their oppressors (36-37). This moment allows us to consider Donovan's aesthetics of care, and its need for attention: "paying attention to what is

overlooked when the subject is framed according to pre-scripted value and aesthetic ideals, relegating the overlooked material to insignificance or indeed to nonbeing" (7). As if to highlight that these animals must be removed from a state of "nonbeing" and given more autonomy, the animals of *We3* are given more graphic space within the graphic novel, taking up a double-page spread as soon as they break out of the facility. This narrative and artistic choice then challenges the "pre-scripted value" that are culturally given to biotech animals. While this value is typically chalked up to use-value, Morrison and Quitely suggest, through this use of double-page spread depicting their breaking free, that animals can have individual value outside of these confines.

Donovan notes that in literature aligned with an aesthetics of care, "[the animals'] viewpoint is not to be ignored as if it were nonexistent, but their realities and standpoint are detailed and included as part of the whole picture" (111). Throughout the graphic novel, the points of view and angles in many of the panels are not from the eyes of a human, but from the eyes of an animal. In these moments, what the reader is seeing is based on the height and location of the animal members of We3. Cervone comments on this choice: "The act of taking on the physical perspective of the non-human animal and learning to experience the world through non-human perception of the space, subject, and time is the direct result of the co-creative process that is ubiquitous to the graphic novel" (92). Also, we often do not get the whole human body in a panel. For example, in a scene where the senator makes a visit to the facility to see We3, panels that feature him show only his torso or a close-up of his mouth (26-27). His mouth is also positioned in an open-mouth grin; without any visualization of the rest of his face (especially his eyes) this grin is meant to look ominous and untrustworthy, evoking feelings of fear and dread toward the wellbeing of who he is talking to – Bandit. This drastically limited

view of this particular human character makes it easier for the reader to not want to empathize with him, also becoming easier to view him as a villain.

The setting and world that *We3* takes place in is also easily recognizable in the format of the graphic novel. For example, as Cervone observes, the graphic novel first gives us an image of a lost dog poster, presenting a Labrador named Bandit. The poster tries to stir sympathy and motivation to help, by noting that he is "friendly and approachable" and depicting an image of Bandit staring right at the camera, as if he is staring right at the reader (5). The reader can already assume that Bandit is a member of We3, known by the military as "1". The graphic novel later shows lost pet posters for the other two members of We3, Tinker (the cat, now known as "2"), and Pirate (the rabbit, now known as "3"). These types of posters are immediately recognizable to not only people who have lost pets, but to people who walk by these types of posters on the street and care enough to stop and look. Regarding the poster of the lost dog, Cervone explains that "Readers are invited to look into Bandit's light blue eyes and see a happy and kind creature who needs help finding his way back home" (95). We are supposed to see him "not as a nameless number" (Cervone 95). Bandit is in a helpless situation, but this poster can allow us to recognize that powerlessness and vulnerability should motivate us to want to care – especially when they are victims of a largely uncaring system that chose to exploit them. The authors, then, draw attention to "the need for empathetic response in a deeply unempathetic system and world" (Cervone 96).

Morrison and Quitely's work easily benefits from the collaboration between the reader and the images in the text because they chose to depict animals (a dog, a cat, and a rabbit) that readers are familiar with – domestic ones, rather than exotic or wild. It is easier to automatically sympathize with these animals because many people already have intimate, caring relationships

with animals of those species. Because of these relationships, they are used to seeing these animals with affection and having their distinct personalities, features, and desires. Sherryl Vint explains, in her introduction to *Animal Alterity,* "[*We3*] indicates that these are individualized animals, named, known and loved by their owners: Bandit is 'friendly and approachable', Tinker's individual markings are described in detail in text whose i's are dotted with hearts, and Pirate 'likes lettuce and carrots'" (4). The reader's ability to sympathize is "related to the reader's previous experience with these [type of] animals in their actual world" (Cervone 89). Much like the narrative we see in Bakis's novel, Bandit is characterized early on in the text as loyal (27). As will shortly be looked at more closely, Bandit constantly refers to himself as a "gud dog" (27). Tinker (the cat) is described as "feisty" (28) and not as loyal as Bandit. Cats, as Jody Berland notes, "retain traces of the wild, residues of independence and guiltlessness no matter how domestic they become"' (450). Cats certainly have a wide range of personalities, yet many cat owners can attest to this statement, recognizing that cats do not necessarily have the same sense of devotion, or a dependent demeanor as a dog.

While dogs and cats are the two most common animal companions in the Western world, rabbits are certainly not an uncommon companion animal. Pirate's lost pet poster is also clearly written by children (with child-like writing), depicting the innocent bond between child and animal to pull at the reader's heartstrings. The placement of this poster is also worth nothing, since it appears almost immediately after Pirate has been shot in the head by a man with a rifle. At that moment, readers are already fearing for Pirate's life. While he does not die immediately after, Pirate does die midway through the graphic novel. Cervone considers the significance of this: "Unlike Tinker and Bandit, Pirate's only escape from exploitation is death, and his being depicted as bound within the white borders of the front matter echo his inability to exist beyond

the confines of the narrative. However, this depiction also calls to mind the actual world of readers and their interactions with rabbits as pets" (94). While Pirate's missing poster does show him on the floor and being pet by two small children, unlike dogs and cats, rabbits are still commonly kept as cage animals (Cervone 94). Noting the speciesism that is too common with attitudes towards certain types of domestic pets, it makes it especially cruel and disheartening to know that Pirate, a rabbit that arguably already has a limited life, is taken and further subjected to more drastic bodily confinements. The choice, then, to sacrifice Pirate emphasizes the lack of autonomy and freedom that many domestic rabbits already have in their day to day lives. Ultimately, considering each of the members of We3, the decision to depict companion animals who were once loved and had their own personalities contrasts with these new depictions of them as laboratory animals, now "instrumentalized and turned into things" (Vint 4). The reader is meant to recognize, early on, the ethical issues with exploiting the animals for this strictly biopolitical agenda.

Much like what we encounter in Bakis's novel, Morrison and Quietly's graphic novel draws our attention to an uncaring violation of animal bodies for the purpose of using them as tools in warfare. As explained by Dr. Trendle (a scientist involved in the project) to the Senator, "Our intention is to save the lives of *countless* men and women in our armed services [emphasis in text]" … Our wars of tomorrow will be fought by remote-controlled animals" (24). The We3 project is scientific research for the sake of "usefulness to the government" (Cervone 96), which is accomplished by "replacing an expensive and outmoded workforce with efficient animal slaves" (Morrison and Quietly 24). At this point, readers have already seen one of the missing posters (for Bandit). Readers are meant to feel not only a sense of sympathy and injustice for the enslavement of the animal, but also for the unnamed, absent human owners who are robbed of

their nonhuman animals, devoid of their companionship and of any knowledge of their disappearance and current whereabouts. This callous enslavement of the animals robs the animals of their autonomy, and of the chance to continue living in (what we can assume to be) a loving home, in a caring relationship with their human companions. Nonetheless, this enslavement is justified by the government and the scientists; their argument that this decision will save both money and human lives implies a capitalist prioritization of profit at the expense of all else. Cervone explains that "All of the men view the animals involved in the project as largely disposable forms of biocapital" (97). As mentioned in the previous chapter about Atwood's pigoons and Joon-ho's superpigs, the animals of We3 are also treated by their creators as disposable bodies.

It is perhaps not shocking that the main scientist involved in the project, Dr. Berry, is a woman, because she does not have the same greedy investment in the animals compared to Dr. Trendle and the male government workers. As Lynda Birke mentions in her discussion of the differences between men and women in the laboratory setting working with animals, the feminine approach does not devalue care, while objective detachment in one's dealings with animals in an experimental setting is stereotypically masculine in our culture (46). Also, unlike the others, Dr. Berry is with Bandit, Tinker, and Pirate on a daily basis, which makes it even more understandable how she would develop an attachment to them. While the other human characters are only shown at work, Dr. Berry is first shown at her home with her pet macaw, Charlie, suggesting to the readers that she genuinely enjoys the company of animals. A panel during this scene zooms in on her face, where it looks as if she is trying to hold back tears. The scene ends with her leaving the house, and readers can assume that she goes straight to work. These hinted at tears can also be suggesting that Dr. Berry may already have an idea of what is to

come when she arrives at work: the possibility that We3 will be "decommissioned" (the reader infers that this means putting the animals down).

Indeed, the senator informs Dr. Berry and Dr. Trendle that We3 will be decommissioned: "The Guerrera Operation was the end of the line for these animals. They've killed their last tinpot dictator" (28). Even though Dr. Berry objects to this decision, explaining that they have "shown more progress than any of the others", the General dismisses this and threatens to fire her if she does not cooperate. As he emphasizes, "I believe I've made my position clear. These animals are obsolete. They are to be replaced" (28). While we never meet or learn about any other animals that were experimented on and then destroyed before the creation of Bandit, Tinker, and Pirate, Dr. Berry's comment suggests that this was the case. This too should not be shocking to readers; at this point, readers can recognize this as a likely standard practice under militaristic biopolitical capitalism. Cervone comments on this: "In this system, both animals and humans can be classified as 'obsolete' and replaced at will when they have outlived their purpose" (98). It is no surprise that Dr. Berry, a woman, is being treated by the general in a similar way that he treats the animals.

To the senator, using these animals as cyborg weapons for warfare should not mean that his sense of human exceptionalism will be challenged. Ideally, he would want to comfortably see these animals as objects, not subjects. Yet, the fact that the senator is disturbed by the fact that animals can talk challenges his comfortable ignorance. He asks Dr. Trendle, "what kind of lunatic would teach a killing machine to talk?" (29). The senator is not suggesting that this would be a lunacy because it is unethical. Rather, he is revealing his belief that a killing machine is supposed to simply be an object that obeys. Permitting it a quality such as speech implies subjectivity; such cyborg war animal subjectivity is to be feared because it forces the complicit

humans to recognize that animals may have individualities (something not unique to humans) and it may compel them to feel guilt for their treatment of the animals. Furthermore, the senator tells Dr. Trendle that the animals, from this point forward, need to be bred for the project, because of "how touchy the public can be" (29). The senator has enough awareness to realize how the public will react if they know the true origins of the animals. The public, then, needs to see the animals the same way that Dr. Trendle sees them and how the Senator *wants* to see them: "as simulated combatants rather than living creatures in their own right" (Singer 209). Singer also argues that part of the reason they must be decommissioned is that their ability to speak raises the possibility and a fear that they may *stop* being complacent killing machines (217). In other words, because language and speaking abilities gives the impression that these are animals with identities, and likely with the ability to choose, the fact that they could have identities leads to the government further deciding that they need to be decommissioned. This fear of them possibly having identities also leads us to a consideration of how, as uplifted animals, they occupy a noteworthy position. Traditionally in science fiction, animals that have been uplifted are given human-like intelligence and other abilities that closely resemble human characteristics. Unlike the upright-walking dogs of *The Lives of the Monster Dogs* who possess a wide range of human vocabulary, the animals of *We3* still walk on all fours, and are given a minimum access to speech. Despite this uplift where they have at least some abilities for human speech, "these animals are given lower status than loved house pets and occupy a space similar to that of lab animals. They are denied any right to life beyond their value as disposable biocapital" (Cervone 122).

This biocapital bare life is further emphasized later in the narrative when readers encounter the fourth animal weapon, separate from We3: an enhanced English Mastiff dog, often

referred to as We4 or #4. We4 is engineered to be even more of a deadly killing machine than We3; he has been "bioengineered to emit ten times the normal levels of 'top dog' pheromone' (97), and is "remote-controlled via neuro-optic link, steered into battle by trained operators" (97). As the military struggle to recapture the escaped members of We3, they eventually decide to unleash We4 on We3 in order to terminate them. In a gruesome scene, We4 manages to kill Pirate. In the commotion of Bandit and Tinker attacking We4, We4 begins to attack a police officer, who Bandit then rescues. At this point, the military decide to also terminate We4, using the code word "Fido" (101), to trigger a bomb in We4's head. As we can see, not only is We4's life remote-controlled, but so is his death. After the explosion, the senator simply remarks, "Damn thing almost ate a police officer" (102). This flippant statement further reveals that the senator's priorities remain anthropocentric, valuing human life over all else. It also further outlines the lack of care for We4 and the refusal to see him as a subject. Additionally, as Cervone observes, *We3* does not offer readers a lost pet poster for We4 like it does with Bandit, Tinker, and Pirate. Presumably, this may imply that he was bred, not stolen. We can infer then that We4 has likely never known any sort of caring companionship.

Unlike the animals of We3, We4 has no access to human speech, and Morrison and Quitely never offer us a glimpse into his thoughts. Philip Miletic considers We4 in his analysis of the graphic novel; commenting on We4's lack of speech and his brutal death, Miletic argues that "its speech cannot exist because it is subject to human's biopower; its silence is not the silence of the animal, but the silence of a silenced being subjected to humanism, lacking any language and subjectivity whatsoever" (Miletic 594). Certainly, while We3 are clearly objectified and treated simply as tools, the deprivation of language further reduces We4 to the status of object/tool. In

fact, as Miletic points out when commenting on the empty speech bubbles beside We4's head, "it does not speak, nor does it even bark" (594).

Much like the dogs in Bakis' novel, the animals of We3 clearly demonstrate a strained relationship to their own bodies. As explained, Bandit, Tinker, and Pirate are equipped with cybernetic attachments and enhancements. More specifically, they each are encased in an armoured shell that is fitted with advanced military weapons. These weapons are meant to enhance the animal based on its species. For example, Tinker's armour includes razor blades located along her paws. Mimicking a cat's retractable claws, these blades can be protracted and launched at Tinker's own will. Because the armour is so well-formed to the animal's body, the animals of We3 have a hard time distinguishing between the technological attachments and their own organic bodies. This contrasts with the dogs in Bakis' novel (especially Ludwig) who are painfully aware of the difference between their equipped technology and their own body. Nonetheless, We3's lack of complete awareness does not equate to a healthy relationship to their bodies. For example, in a scene where Pirate's armor breaks, he says "Fix. Tail. Bad. Tail. Fix" (55). Very soon after, when Tinker protracts her razor blades, she exclaims "??? Claw b gon hhccchhhsss!" (56). These instances, where the animal is clearly referring to technology using the name of organic body parts, implies "a fluidity between the animals' control and understanding of the technology and their bodies" (Bianchi 82). Even though later in the narrative when Bandit and Tinker shed some of their broken armour and Bandit is able to distinguish between himself and his "coat" (a broken piece of the armour), Melissa Bianchi argues that the choice of the word "coat" means "his language still refers to technology as physiology, not prosthesis" (Bianchi 82).

An example that especially demonstrates the harm in this inability to distinguish between technology and the organic body is when We3 are on the run from the military and Pirate insists that his "tail" (a cyborg attachment) needs to be fixed immediately. Pirate tells Bandit that his tail is "bad", and we must "fix now" (58). Bandit and Tinker, however, imply to Pirate that they need to keep moving to avoid further danger. Cervone explains how this harms Pirate's species-specific perceptions: "As a prey animal, Pirate should be hyperaware of danger, but because he believes the mechanical tail is part of him, he is unable to correctly prioritize danger" (120). The implementation of technology, then, has created a new mentality in Pirate where he cannot properly assess his own decisions in order to survive. Cervone draws attention to an earlier scene where We3 saw a bunch of wild rabbits: "Pirate should have some indication that the coat and the tail are not part of himself, but he does not, illustrating one of the ways in which the text accounts for the differences in intelligence between Pirate and the other members of We3" (120). It may be true that this implies Pirate possessing a lower intelligence than Bandit and Tinker, but I would argue that it may not be wise to limit it solely to this reason. While the animals of We3 certainly have had their intelligence raised (since they are able to communicate in human language), it would be easy to assume that his body being altered in a drastic, invasive way also plays a part in affecting Pirate's state of mind. What this means, then, is it is not enough for them just to shed their armour; it is a start, but they also need to be in an environment where their minds can heal. In Cervone's words, "Bandit and Tinker cannot have physical freedom until they are able to acquire emotional freedom through seeing themselves as fully realized subjects within a team, and as animals who were given weapons, not as animals who are weapons" (125).

Much like with Bakis' novel, *We3* addresses the need for care in response to these animals' oppression and their strained relationship to their body. A consideration of this necessitates a

study of two human characters and their treatment of the animals: Dr. Berry, and the unnamed homeless man. As previously stated, Dr. Berry is the scientist most involved in the We3 project, and the only scientist who tries to make an argument against their decommission. One of the reasons she offers for why they should not be decommissioned, along with the fact that they have shown a lot of progress, is that they are the result of "years of [her] work" (28). While these words certainly imply that she sees these animals simply as products of her scientific pursuits and less so as autonomous subjects, her actions later in the narrative perhaps seek to rectify this questionable mindset.

Later in the graphic novel, after We4 kills Pirate, Dr. Berry approaches Bandit. At this point, Dr. Berry has been sent – despite her reluctance – by the military to calm Bandit down and lead him to the area where the military will fire their snipers. Face to face, Berry cries in apology to Bandit, while Bandit tells her "No 'dee-comm-ish' We3' (93). Bandit further expresses his wishes: "We3 gud. Gud dog. Home now" (93). As the snipers prepare to shoot Bandit, Dr. Berry tells Bandit his name: "1! The name on your collar was 'Bandit'. U. r. Bandit." (93). In this moment, Dr. Berry finally "giv[es] him knowledge of his previous identity and treat[s] him as a fully realized subject, for perhaps, the first time since the project's beginning" (Cervone 124). This act cannot be dismissed; from then on, Bandit never refers to himself as "1", only as Bandit. While the animal's lack of human language does not have to be seen as a hardship, there is still a significant difference between being called "1" and "Bandit". While it is true that "Bandit" is a name given to him by a human (as is the case with all companion animals), "1" is barely a name, but a label, given to him by an oppressive military system exploiting their biopower. Again, we can presume, in contrast, that Bandit's owners cared about him (certainly enough to put up a lost pet poster). The name "Bandit" becomes associated with a prior life, more likely filled with care,

trust, and companionship. Even when Bandit (and the other animals) are robbed of their names, the readers can assume that Dr. Berry does not see this "absence of a name" as a significant lack because of the fact that she argues against decommissioning them. Furthermore, the very act of giving Bandit's name back to him shows Dr. Berry acknowledging that he is deserving of a life distant from scientific objectification and closer to love, companionship, and security.

After informing Bandit of his name, Dr. Berry sacrifices herself in order to save his life. As the snipers are about to shoot Bandit, Dr. Berry throws herself in front of the bullets, ultimately dying to protect Bandit from being murdered instead. Is it fair, though, to say that the novel itself is suggesting that this was the caring thing for Dr. Berry to do? I would argue that the answer here is rather complex. The reader is certainly meant to root for Bandit (and each of the animals of We3). The reader is meant to feel compassion for all the animals suffering and feel relieved when Bandit is saved from the snipers. I would also argue though that Morrison and Quitely, in depicting Dr. Berry's distress towards Bandit's suffering and her frantic command for him to "run!" before she sacrifices herself, are suggesting to the reader that she is trying to redeem herself by saving Bandit's life. If we see death as the ultimate deprivation, then it would not be caring for Dr. Berry to allow Bandit to die. In order to protect Bandit and strengthen his potential to escape the oppressive system that robbed him of any form of autonomy, Dr. Berry feels that she must sacrifice herself in this moment to allow Bandit time to run away. This may have been her choice, but this does not necessarily mean that she is her own autonomous agent in this decision. What we have here is another no-win situation: Bandit could die, and she would feel the guilt for allowing it to happen, or she could die herself. I would not argue that the novel is suggesting that Dr. Berry actually *wanted* to die, but she also clearly did not want to see Bandit

die. Ultimately, the conditions shaping Dr. Berry and Bandit's existence make it difficult for a proper caring relation to form.

In contrast, the unnamed homeless man does not feel trapped by these same no-win situations. When the homeless man first meets the animals of We3, who are taking refuge in an area he frequents, the homeless man immediately tells Bandit, "I ain't your master, Boy. You ain't mine," and then feeds him half of his hamburger (80). While one could argue that what he means by this statement is a simple acknowledgment that *he* is not the dog's owner (implying that someone else is), I would argue that his actions otherwise suggest that he does not feel comfortable with the idea of mastery of animals to begin with. In this sense, the homeless man's immediate response seeks to remove a sense of hierarchy. As Cervone observes, "his first response is to be compassionate to the living beings in front of him who clearly need help, and to talk to and treat Bandit as an equal" (Cervone 107). When he quickly realizes that the animals can talk, he remarks "Talking animals. I need liquor" (81). This remark is meant to reveal his shock, not feelings of disgust or fear like the senator feels when he tours the facility. The animals' speech does not horrify him because he already sees them as beings, not as objects/tools who must remain silent and obey human will. Instead of being disturbed by the creatures themselves, he is disturbed by what must have led to their manipulated bodies: "Goddamn, look what they did to you! What kinda sicko penned you up all in there?" (81). In other words, he is disturbed by human actions. Unlike the military, the senator, and even the scientists (including Dr. Berry, initially), the homeless man immediately indicates his belief that he does not think humans had the right to manipulate their bodies in this way in the first place. His mindset that the people who did this to the animals are "sickos" – instead of normal scientists/innovators – shows him "placing a very different level of value on animal lives than anyone else in the text"

(Cervone 108). After accepting that the animals can speak, the homeless man decides that he needs to leave so he can find some tools to remove the armour from their bodies. What is noteworthy here is that this seems to be an immediate decision that he does not question. As a man without a home and much money to get by, it would be understandable if he was not overly willing to go out of his way to help the animals. However, this is not the case; instead, he immediately accepts that these animals are deserving of care and respect and decides to take action in order to help them.

The homeless man's existence and participation in a world separate from capitalist society is also worth consideration. Because the homeless man has been excluded by the system, he then has "no allegiance to it, and it does not dictate how he views nonhuman life" (Cervone 109). An oppressed figure himself, the homeless man can easily see the animals as figures worthy of help, and not as resources for human use. In her discussion of the homeless man, Vint notes that he reveals "the relationship between ways of marginalizing and exploiting animals and the ways in which the discourse of species is used to animalize and marginalize some humans" (4). This marginalization is further implied when the homeless man leaves to go find tools. He is confronted by the police, who observe him as "some homeless guy" but also ask him if he's seen any "dangerous animals" and explain that there's a "big reward", further remarking "sorta money you could use. Guy like you" (Morrison and Quietly 83). These remarks and treatment clearly show them "view[ing] the homeless man in much the same way the military views the animals, neither are seen as having any value and are therefore not worth further investment or even a basic level of respect" (Cervone 110). Indeed, the homeless man is only acknowledged for the possibility of having seen "the dangerous animals". The homeless man, however, does not give the police what they want. Rejecting speciesism, he does not choose the side of the privileged,

capitalist, anthropocentric human, but instead aligns himself with the abused animals "who have also been harmed and abandoned by the very same system that harmed and abandoned him" (Cervone 110).

By the last few pages of the graphic novel, Bandit and Tinker are seen living outside with the homeless man, who has taken them under his care and removed the remaining cybernetic attachments. By stumbling upon another being "who appeared as valueless to capitalist market forces" (Cervone 132), Bandit and Tinker find a new "home". What is noteworthy about this ending is that, after being abused and exploited, Bandit and Tinker are not returned to their former owners but are given a new home with another exploited being. It is perhaps the homeless man's exploitation that allowed him to look at Bandit the first time and insist that he is not his "master". In refusing the role of "master", it is likely that he does not see himself as "owner" either. Cervone considers this ending for Bandit and Tinker: "Bandit and Tinker are able to exit the system of exploitation to become fully realized agents, but only by resolving themselves to a life lacking the conveniences of their previous homes. Though their lives will be a struggle moving forward, they are lives with no master" (132). Also, as Bianchi observes, "We3's search for home results in an arrangement with a human that is not centered about ownership, reimagining the social order and challenging its anthropocentrism" (70). Is it valid, however, to argue that the novel implies that the homeless man is able to provide care for Bandit and Tinker? In the graphic novel's closing scene, Dr. Trendle is walking up the steps to the courthouse when he sees the homeless man and Bandit and Tinker sitting on the steps. The narrative does not confirm whether Dr. Trendle recognizes the animals. In fact, when he approaches the homeless man and the animals, Bandit's speech bubble captures a bark, hinting that he no longer engages in human speech. When he sees the homeless man, Dr. Trendle says "He's a fine dog. Don't they

need special care?" The homeless man responds, "Just love and attention. And a few scraps of food never hurt" (115). This statement suggests that the homeless man recognizes that care can entail both tangible (food) and intangible (love and attention) offerings. It is safe to assume that the homeless man would certainly like to live a life without struggle, but he also recognizes that love and attention should not be dismissed – and, of course, that Bandit and Tinker were deprived of it during their time as a part of We3. Thus, this ending emphasizes the importance of a caring sense of connection between humans and former cyborg animals. As Miletic notes, the ending of *We3* offers "an ethical posthumanism wherein the human does not master the animal nor does the animal master the human … together is the weapon against humanist humanism" (598).

Towards a conclusion: empathy and human imagination

By looking at how Bakis' novel and Morrison and Quitely's graphic novel depict cyborg animals that have been engineered for human violence, I have aimed to outline science fiction's capacity to demonstrate how care can become complicated when an ethical consideration of biotech animal autonomy comes into play. While the texts suggest that there is still a need to incorporate considerations of autonomy into one's discussion of care, there still should also be an acknowledgment as to how it is influenced by social forces. In also drawing attention to the relationship between form and content in both texts, I have sought out to demonstrate the genre's power in revealing art's role in drawing our attention to a plethora of bodily images and relations, and the complexity in trying to ethically engage with these different bodies. Donovan continuously comes back to Adorno in her discussions of animals and aesthetics of care, especially drawing attention to how "scientific objectification fails to register the experience of suffering" (*The Aesthetics of Care* 88). In contrast, art becomes of great importance for the

expression of the suffering body (89). As expressed earlier, Cleo's decision in Bakis's novel to honour Ludwig's words, in an artistic form, shows him valuing his voice, his story, and by extension, his suffering. I would argue as well that what Bakis wants readers see in Cleo's decision to help deliver Ludwig's story is an engagement with something along the lines of what Jim Cheney refers to as "contextual discourse", which "assimilates language to the situation, bends it, shapes it to fit" (120). This sort of contextual discourse "enables a genuine reciprocity of information sharing, where the subject is not objectified but listened to, as a fellow being" (Donovan, *The Aesthetics of Care* 86). This "genuine reciprocity", then, helps dismantle attitudes of "scientific objectification". This caring attentiveness is a form of "attentive love", which we may recall as partially being defined as "a caring, responsive receptivity to the unique particulars of one's environment" (*The Aesthetics of Care,* 91).

Furthermore, attentive love can also be understood as "a recognition that the sufferer exists, not only as a unit in a collection, or a specimen" (Weil 115), but as an individual subject. Not only do we see this with Cleo who recognizes that Ludwig is his own dog and not just a placeholder for the category of Monster Dog, but we see this in We3 as well. The authors give the animals names, Dr. Berry reminds #1 that his name is Bandit, and the homeless man takes Bandit and Tinker under his wings as companions, not as scientific objects or specimens that are part of a unit. This caring recognition abandons totalizing mindsets and "totalizing language", which Cheney refers to as "assimilat[ing] the world to it" (120) and instead recognizes the importance of situation contexts where the suffering subject is allowed their voice to be heard.

In the last chapter, I looked at genetically modified animals who could not perform human speech. In this chapter, I considered uplifted animal cyborgs who do possess human speech (to a less or great extent). The animals in *The Lives of the Monster Dogs* and *We3* use

human language to express their dissatisfactions and sufferings, but also their desires. It is worth considering Ludwig Wittgenstein's famous declaration that "If a lion could speak, we could not understand him" (225). In theory, if animals could talk, then anthropocentric attitudes would have to waver; if animals could express their preferences in a language we easily understand, then we would not be able to ignore the injustice of exploiting them. However, Bakis's novel and Morrison and Quitely's graphic novel demonstrate that this is not necessarily the case. Wittgenstein's statement has been analyzed by many scholars to have different meanings. One way of reading Wittgenstein's statement is that even if a lion were to talk, its utterances would have little to no meaning to us because it does not share a human context with us. We cannot assume that a lion thinks about the world in the same way we do. If they would be coming from a different reference point, then it would be hard to understand what they are saying. Yet, in the case of these uplifted animals who have had their bodies cyborg-ized for human purposes, they have been forced to experience human context. Nonetheless, this does not make them any more sympathetic to humans who seek, from the beginning, to exploit them. In these cases, it is not so much that the human cannot understand the animal, but that they refuse to. What this means, then, that like Cleo's character development in *Lives of the Monster Dogs*, and like the homeless man in *We3*, one must *want* to understand them in order to respect their desires.

And so, is there ever a situation where it is okay to turn an animal into a cyborg? Do the novels address this? Let us bring back the example of Winter the dolphin from earlier in this chapter. Should we let an animal suffer because it cannot exercise its autonomy by asking us for help? As previously mentioned, consent is not necessarily always the best marker for ethical care. A human knows they cannot ask the consent of their companion animal to take them to the veterinarian for health matters, but we would not claim that the human should not take them to

the veterinarian. Looking at Bakis's novel and Morrison and Quitely's graphic novel where cyborg-ization is not for the benefit of the animal, we can understand the importance of autonomy, but also the importance of trying to put ourselves in the shoes of the one who is suffering. It is safer to assume that an animal would feel some sort of relief if technology was introduced to their body to help them/their quality of life, *and* that this is certainly not the case if the purpose is strictly for a human agenda. Thus, while I would not argue that the texts are telling us when it is ethically permissible to cyborg-ize an animal, they are certainly suggesting when it is unethical. Science fiction works can demonstrate that cyborg-ization for human agendas not only ignores their autonomy, but their interests. If an injured animal could choose, it is likely that their interest would be to try to heal their body or relieve their pain/discomfort in some way. We see this in *We3* when Pirate wants his "tail" fixed. Nonetheless, even if one were to genuinely try and help an animal's wellbeing through cyborg-ization, one must not forget the power dynamics that are always at play; this means that one must approach these situations with care and responsibility.

3.

Human Minds in Animal Bodies in Pat Murphy's 'Rachel in Love' and Emma Geen's *The Many Selves of Katherine North*

Note: Selections of this chapter, focusing on Geen's novel, are borrowed/adapted from a paper that I contributed as a chapter to *Animals and Science Fiction* (Palgrave MacMillan, 2024).

As we have seen so far, the field of biotechnology encompasses a wide range of methods for engineering or altering living organisms for human purposes. Science fiction is an influential and effective genre in demonstrating this range. Thus far, I have explored the representation of genetically engineered animals and cyborg animals in science fiction. While I return to these representations later, at this point I will draw attention to a more speculative[24] example of a biotech animal: an animal body with a human host – that is, a human mind uploaded into an animal body. With this focus, I am dealing with two tropes that have been explored in many works of science fiction: mind-upload, and human-animal hybrids.

Mind upload, or "mind transfer" as it is sometimes referred to, denotes a transfer of a mind from one biological brain to another entity. Uploaded minds, as often seen for example in simulated or virtual realities, is a common theme in science fiction texts. This theme has been recurring since the 1950s, with one example being Arthur C. Clarke's novel *The City and the Stars* (1956), set one billion years in the future in a city named Diapar. In the novel, the minds of the citizens are stored as information patterns in the city's "Central Computer." Another well-known example is James Tiptree Jr.'s[25] Hugo award-winning novella *The Girl Who Was Plugged*

[24] By "speculative", I mean less grounded in reality; while we do have real-world examples of genetically engineered animals and cyborg animals, we do not have any examples of a human mind being uploaded into an animal body – or any other body.

[25] This name is a pseudonym for female author Alice Bradley Sheldon

In (1973), with an emphasis on the female body. Tiptree Jr.'s novella follows a girl named Delphi and a girl named P. Burke. Though Delphi gives an outward appearance of normality, she was born without a functioning brain from a modified embryo, and in the current day she is controlled through a satellite linked to P. Burke's brain. This theme of mind upload has also been prominent in the 21st century. This is exemplified in works by science fiction author Cory Doctorow, such as the 2003 novel *Down and Out in the Magic Kingdom*, set at Disney World in the 22nd century and looks at immersive mind-uploading technologies that give park guests that illusion of being past American presidents. Popular science fiction television shows such as *Black Mirror* (2011) and *Westworld* (2016) also cannot be neglected in this discussion. *Black Mirror* is an anthology series with episodes often set in near-future dystopias, dealing with speculative imaginations of technology. *Westworld* is set in a futuristic Wild-West themed amusement park, where guests can interact with android "hosts", animatronic bodies who are programmed to interact with the human guests in any way the human wishes, often recording the full extent of the guest's experience.

In real life, mind uploading refers to a theoretical process of scanning a part of the brain to create an emulation and transfer/copy it to a digital form. In practice, a simulation of the brain's information processing would run on the digital form, such that it should respond the same way the original brain would. Thus far, there has been research in related areas, such as animal brain mapping and simulation, and virtual reality. While some scientists argue that we already have the tools needed to successfully perform mind upload or that they are currently under development, other scientists insist that the concept is still too speculative, even if it is in the realm of possibility for biotechnology engineering.

Regardless, many scientists, scholars and critics participate in the conversation surrounding the importance of mind upload and the ethicality of such a practice. Transhumanists argue about the lives of humans when it comes to mind upload; the successful achievement of mind upload could result in life extension or even immortality – even if that immortality is carried out in a digital form. However, when considering the requirements that would come with the process of developing such emulation technologies, an ethical issue that would certainly arise is the violation of animal welfare (Bancroft). This neuroscientific development would require animal experimentation; at first, this would include nonhuman animals, but it would then eventually have to move on to humans. Consequently, it is also possible that the resulting emulations might suffer (depending on whether we view an emulation as having enough consciousness to feel suffering).

As to be expected, another issue that comes with the encouragement of mind upload is the problem regarding who is given the opportunity to do so. From a capitalist perspective, one can expect that only people with enough money would be given this opportunity. Alternatively, could mind upload be available only to people who are terminally ill? If so, is there still an ethical issue since we are deciding who deserves to have their life extended? There are other hypothetical issues that could easily come with mind upload and life extension. For example, a very likely scenario is overpopulation; if the process of dying out would come to an end because of mind upload life-extension, then the human – or "human" – population would continue to climb. Would there then have to be a cut off "age" for a person being allowed to live their life with their mind uploaded to a digital form?

While this transferring of consciousness has not yet been seriously attempted, there have been companies thinking about the process. For example, a biotechnology company called

Humai wants to upload the human brain into an artificial body; as the overview on the "About" section on their LinkedIn profile states, "We want to transplant your brain into an elegantly designed bionic body called Humai. It will use a brain-computer interface to communicate with the sensory organs and limbs of your new bionic body. Artificial intelligence will be integrated into synthetic organs, so they can operate independently. Sensor technology will allow you to feel the essence of human experience". As they further explain, "genetic engineering will combat the aging process" as nanotechnology advances "will offer extensive tissue repair and regeneration, including the repair of individual brain cells" ("Humai | LinkedIn").

In this chapter, I also look at mind upload in relation to another common presence in science fiction: human-animal hybrids. So far in this dissertation, the most obvious example of human-animal hybrids we have seen are the Crakers from Atwood's *MaddAddam* trilogy. Typically, human-animal hybridity refers to shared bodily elements. The term human-animal hybrid (or animal-human hybrid) refers to a being that has a combination of physical elements from both humans and animals. On one hand, human-animal hybrids have existed for a long time in social cultures, particularly as mythological or fictional forms. For example, Pan is the God of nature and shepherds in Greek mythology. He symbolizes the untamed wild, and is often visually depicted having the hindquarters, legs, and horns of a goat. Also, of course, we see human-animal hybrids in science fiction. Dr. Moreau's creations in Wells' *The Island of Doctor Moreau* are human-like beings made from animals via vivisection. A 21st century film that deals with human-animal hybridity is science fiction horror film *Splice* (2009), directed by Vincenzo Natali, which follows a young scientific couple who experiment in genetic engineering, splicing human DNA with animal genes. Outside of science fiction, some fictional works also depict more metaphorical examples of human-animal hybrids not brought on by scientific intervention. For

example, some anthropomorphic characters, such as Beatrix Potter's *Peter Rabbit* or the animals in Kenneth Grahame's *The Wind in the Willows*, may arguably still be considered human-animal hybrids because they dress in human clothing, talk like humans, and yet still display many animal traits.

However, literal human-animal hybrids are thought to be theoretically possible via biotechnology and other scientific experimentations. Today, the closest example we have of human-animal hybrids are chimeras. Tara Seyfer explains the technical differences between a hybrid and a chimera. A hybrid is "the product of breeding two different species (via normal copulation or in vitro fertilization)" and "each cell in the hybrid's body has a mixture of genes from both of the parents" (37). In comparison, a chimera "consists of a combination between two different species within an organism" in which "the genes of the two species do not combine as with a hybrid" (Seyfer 38). However, while many sources either treat these two terms as synonymous, or make a point in distinguishing between the two, many sources still view the creation of a chimera as a form of hybridization. The production of a chimera is possible today because of xenotransplantation. As I explained in Chapter 1, xenotransplantation is the process of transplanting organs or tissues from one member of a species to a member of a different species. For example, I previously discussed human-pig xenotransplantation. Advanced gene biotechnologies have allowed for the integration of a non-native gene into the swine genome. With the injection of copies of human growth hormones into the pronuclei of newly fertilized eggs, we have the first ever transgenic pigs (Whyte and Prather, 1).

The hybrids I look at in the two texts that I have chosen to examine in this chapter – Pat Murphy's novelette (sometimes referred to as a short story) "Rachel in Love" and Emily Geen's *The Many Selves of Katherine North* – are engineered by mind-upload. Here, it is not a matter of

transplanting organs in different bodies but transferring consciousness into bodies of a different species. In the two texts, the animal bodies that are being invaded by human minds are essentially treated as if they are computers; they are embodied computer systems that can simply host the mind – and, arguably, the life – of a human. In this chapter, I explore how human-animal hybrids created by mind-upload are represented in science fiction, specifically focusing on the limits to our knowledge, the ethics of such creations, and the relationship between imagination and empathy.

While it may be easy for humans to accept their sympathetic imagination abilities towards other humans, some scholars argue that sympathetic imagination can be extended towards animals as well. Such sympathetic imagination is especially common when young children identify with animal and other nonhuman characters when reading children's literature, but some scholars also argue that this ability can carry on into our adulthood. Sympathetic imagination refers to a reader or audience member's identification with literary and fictional characters and the individual's ability to figuratively think themselves into the being of another (Beierl 213). Barbara Hardy Beierl states, regarding the human-animal bond, "Imaginative literature, featuring both human and animal characters, conveys this bond to the reader through sympathetic imagination" (213). Indeed, imaginative literature can effectively nourish our ability and desire to strengthen our bond with animals; it does this by asking us to figuratively "step into the shoes" of the characters, both human and nonhuman. To outline this further, I would like to draw our attention to Elizabeth Costello in J.M. Coetzee's *The Lives of Animals*. In Coetzee's novella, Elizabeth Costello gives a lecture to a university where one of the points she argues is for the value of literature when it comes to providing a perspective on animal being. In contrast, Elizabeth believes the field of philosophy is primarily dedicated to theorizing the human

experience, and thus does not properly consider the experience of animals. Costello argues that "the poets" can cultivate empathy for animals through genuine attempts to narrate their experience. This also means that she does not believe doing so is strictly impossible. Alluding back to how she wrote a novel from the perspective of Marian Bloom, a character from James Joyce's *Ulysses* who is fictional and thus never existed, she argues that "there is no limit to the extent to which we can imagine ourselves into the being of another. There are no bounds to the sympathetic imagination. If I can think my way into the existence of a being who never existed, then I can think my way into the existence of a bat or a chimpanzee or an oyster, any being with whom I share the substrate of life" (Coetzee 35). While it is true that Costello does not have biotech animals in her mind when delivering this lecture, her sentiments here still hold true. This connection is especially the case if we consider how some may see biotech animals as less "real" than ordinary animals (because they may be more speculative or because the incorporation of technology infects the idea of "real"), and we know that Elizabeth Costello can think her way into characters who are, factually, not real.[26]

By thinking their way into the existence of another being, it is then possible for sympathetic imagination to lead to empathy. As O'Connell widely defines it, empathy is "the capacity to understand the emotional, visual, or cognitive perspective of another individual and is perhaps reliant on the ability to attribute mental states" (O'Connell 397). While we cannot, of course, enter the body of an animal, humans can encounter this practice of cultivating empathy by *thinking* about the existence of a nonhuman animal when they engage with fictional works that genuinely attempt to capture the animal experience. The genres of speculative fiction and

[26] It may also be worth mentioning here that this is not the only time Coetzee has written about this discussion. Coetzee's oeuvre has quite a bit of reflection on animal-human interaction (his novel *Disgrace* being one example).

science fiction are especially important examples. Works in these genres are often useful tools that offer a variety of glimpses into different worlds and different modes of being.

In this chapter, I explore how these texts suggest caring approaches to our imaginative attempts to see through the animal's eyes, and how such engagements may lead us to rethink how we use them for entertainment, extending human life, and other research. Furthermore, both texts suggest that our relationships with nonhuman animals needs to be shaped by a willingness to consistently learn more about the animal and to try, when able, to approach such knowledge in an ethical manner. This suggestion opens important questions about the texts, such as asking ourselves how much care Rachel in "Rachel in Love" owes the identity/memory of the chimpanzee whose consciousness was pushed aside and whose body she now inhabits and shares, and how much caring is reasonably expected towards the ResExtendas (in *The Many Selves of Katherine North*).

Considering representations in literature, Marian Scholtmejer notes that "animals are … scarcely animals at all, but schematic elements in an aesthetic or psychological design" (Scholtmejer 259). In other words, we see them less as an animal but more as a symbol or an aesthetic tool. Josephine Donovan argues that we must find literature that challenges this; she states that literary critics have begun "questioning the ubiquitous aesthetic exploitation of animal pain and suffering, and seeking alternative forms of representation either in existing but neglected texts or by calling for new modes that do not, as Philip Armstrong puts it, 'reduce the animal to a blank screen for the projection of human meaning'" (*The Aesthetics of Care* 95). In my exploration of both Murphy's novelette and Geen's novel, I also evaluate how successful both texts are in accomplishing this task. I consider Murphy's novelette before Geen's novel not

only because it was written and published first, but also to later outline how Geen's novel is progressive in its representation of animal lives and animal voices.

Pat Murphy's "Rachel in Love"

After the death of the story's protagonist, a teenage girl named Rachel, her neurologist father, Dr. Aaron Jacobs, copies a recording of "Rachel" into a young female chimpanzee via mind uploading technologies. Essentially, this recording is a copy of her personality, memories, and the overall inner part of her that makes her who she is. In order to communicate with her, he teaches her sign language. Unable to accept the death of his daughter (who died in a car accident), Dr. Jacobs "imposed the pattern of his daughter's mind... combining the two after his own fashion, saving his daughter in his own way" (Murphy 219). To be "saved", Rachel, once a teenage human girl, now inhabits the body of nonhuman animal. Aline Ferreira describes Murphy's story as a "tale of … the search for identity and the necessity for communication" (228). Throughout the story, we see Rachel's search for her identity when she experiences both a physical and mental disconnection. This disjunction is primarily caused by the dissonance of her memories. As I will later explain in more depth, she remembers moments from her life as a human child, but also carries with her memories of the chimpanzee whose body she inhabits. It is, then, "as if she had two bodies, two lives, and two different sets of recollections" (Ferreira 228). Before dying, Dr. Jacobs had never told anyone that he copied his late daughter's mind into a chimpanzee. Eventually, when Rachel is discovered, she is taken to a Primate Research Center. While there, Rachel is shocked to be treated as if she were an object instead of a subject. Her reaction, thus, "confronts us with the reality of how we regularly treat nonhumans, failing to acknowledge their subjecthood" (Ferreira 228).

As Ferreira points out, thus far there has been very limited scholarship analyzing Murphy's novelette, and it primarily focuses on analyzing the text from a feminist theory lens. This analysis mostly explores Rachel's coming-of-age plot and her girlhood (a theme especially fleshed out during her crush on a janitor at the research center). However, less attention has been given to this story when reading it through a human-animal studies lens, or alongside a consideration of animal ethics. While we can certainly read Murphy's story through a feminist lens – and we should, especially when considering the feminist origins of care ethics – we can also give attention to the animal (the unnamed female chimpanzee) and Rachel, who is now a human-animal hybrid. Murphy's story examines "the vexed exchange of humanizing the animal and bestializing the human" (Ferreira 223). In Ferreira's words, "Human/animal chimeras must be considered in relation to ethics surrounding cross-species genetic exchanges and challenges to humanism that call the species boundary into question" (223). The story asks readers to consider how just blurred the lines are between the category of human and the category of animal.

In the first scene of the story, Rachel – who, we must note, is immediately referred to as a chimpanzee, and not a human – is excitedly watching a *Tarzan* movie on the television. Rachel, watching Tarzan "trapped in a bamboo cage by a band of wicked Pygmies" is "afraid that he won't escape in time to save Jane from the ivory smugglers who hold her captive. The movie cuts to Jane, who is tied up in the back of a jeep, and Rachel whimpers softly to herself" (Murphy 217). This early passage accomplishes more than just subtly foreshadowing Rachel's own near-future captivity; as science fiction scholar Joan Haran notes, this scene, when thought about alongside Rachel's own captivity, "emphasizes that a similar worldview underpins the scientific imagination that both views the great apes as our nearest relatives and subjects them to painful and invasive research" (Haran 257). This scene, then, is an early example in the text that draws

readers attention to the cognitive dissonance that often clouds how we view animals: the great ape is pseudo-kin, but it is also a scientific object.

When Rachel is held captive at the Primate Research Center, she remembers her blond-haired (human) mother, but she also remembers another. Rachel remembers a mother who "was dark and hairy and smelled sweetly of overripe fruit" (Murphy 220). She also remembers when she and this mother "lived in a wire cage in a room filled with chimps and she hugged Rachel to her hairy breast whenever people came into the room" (220). As Rachel experiences these "Memories upon memories: jumbled and confused", she remembers cages: "cold wire mesh beneath her feet, the smell of fear around her. A man in a white lab coat took from the arms of her hairy mother and pricked her with needles. She could hear her mother howling, but she could not escape from the man" (220). The reader can assume that these memories are from when the chimpanzee was at the Primate Research Center. The activities at the Primate Research Center parallel Dr. Jacob's experimentation on a young chimpanzee when he uploaded the personality of his dead daughter upon her brain. Haran observes that "both Jacobs and the PRC attempt to deprive Rachel of self-determination" (Haran, 257). However, it cannot be forgotten that it is also the chimpanzee who is also deprived of self-determination. While it would not be right to assume that the chimpanzee could anticipate such a possibility of her mind being invaded and thus have an opinion on the matter, sympathetic imagination would ask of us to, figuratively, put ourselves in the shoes of the other and imagine how they would or could feel about such violation. Dr. Jacobs does not show any indication that he cares about the fact that this young chimpanzee would very likely, if properly understanding the context and circumstances, want to continue living a life without her mind invaded.

Early in the story, Dr. Jacobs is meant to fit the mad scientist trope that is often seen in science fiction. In an early scene, Rachel asks her father to tell her favourite bedtime story. Murphy makes it clear that the story he tells her is not a fictional one. The story, beginning with how Rachel's father worked at a university, explains that he was "studying the workings of the brain and charting the electric fields that the nervous impulses of an active brain produced" (Murphy 218). However, "the other researchers at the university didn't understand Rachel's father; they distrusted his research and cut off his funding" (218). Dr. Jacobs' voice then takes on a "bitter edge", as he continues: "So he left the university and took his wife and daughter to the desert, where he could work in peace" (218). The distrusted research, cut-off funding, and Dr. Jacobs' bitter tone all foreshadow his mad and dangerously ambitious goals. Also, much like Dr. Moreau in Wells' *The Island of Doctor Moreau,* he separates himself from the bulk of human society to conduct his experiments. Both scientists also attempt, in different ways, to humanize the animal. When the reader is given backstory into Dr. Jacobs' process of creating Rachel the chimp, they learn that first Dr. Jacobs "had been experimenting with the use of external magnetic fields to impose the patterns from one animal onto the brain of another" (Murphy 219). This line implies that Dr. Jacobs experimented on multiple nonhuman animals before uploading his daughter's personality into a chimpanzee's brain. Not only is the chimpanzee exploited, but so are other animals in Dr. Jacobs' pursuits. After his experimentations, Dr. Jacobs obtained a young chimpanzee from an animal supply house, and "used a mixture of norepinephrine-based transmitter substances to boost the speed of neural processing in the chimp's brain, and then he imposed the pattern of his daughter's mind upon the brain of this young chimp, combining the two after his own fashion, saving his daughter in his own way. In the chimp's brain was all that remained of Rachel Jacobs" (219). As we can see from human-animal hybrid engineering, the

chimpanzee becomes a biotech animal as soon as Dr. Jacobs boosts the speed of neural processing in the chimpanzee's brain. Emphasizing that Dr. Jacobs "sav[es] his daughter in his own way", this passage neglects the fact that "his own way" includes exploiting and essentially invading the mind of a young chimpanzee who has no say in the matter. It is safe to assume as well that who also did not have a say in the matter was Rachel.

To some extent, Rachel also recognizes that animals are too often seen as disposable bodies and as less worthy of respectful treatment. She hints at this recognition when she meets Jake, a janitor who works at the center. Jake is described as an "unambitious, somewhat slow-witted man" who likes his job "because he works alone, which allows him to drink on the job" (Murphy 227). Most importantly, however, he is described as someone who cares, at least to some degree, about animals, sometimes discreetly bringing treats for them. Readers learn about what happened the last time he lab assistant caught him giving an apple to a pregnant rhesus monkey as a treat: "The monkey was part of an experiment on the effect of dietary restrictions on fetal brain development, and the lab assistant warned Jake that if he would be fired if he was ever caught interfering with the animals again. Jake still feeds the animals, but he is more careful about when he does it, and he has never been caught again" (227). Jake, then, is introduced as a character who clearly recognizes that these animals are lab animals, but still cares enough about them to think they should have access to some sort of pleasure (in the form of a treat). Even though he is aware he could be fired if caught again, he still goes out of his way to attempt to bring the animals some form of joy. Furthermore, he is an important character because he recognizes and tries to lessen Rachel's distress. What also must kept in mind here is that Jake has no idea that a human mind is inside the chimpanzee body; he is not looking at Rachel and seeing a human in distress, but an animal in distress. When Rachel learns that Jake can also

communicate in ASL, she signs to him, asking him to release her from her jail. He tells her "This isn't a jail … This is a place where scientists raise monkeys" (Murphy 228). Rachel signs back "I am not a monkey … I am a girl," to which Jake signs in response, "You look like a monkey" (228). Rachel, nonetheless, insists that she is a "girl", and signs to him, "I don't belong here. Please let me out" (228). When Rachel states this, she is drawing attention to the human in the "I"; at this point, she is not trying to state that animals do not belong here, but that she, a human, not *actually* an animal, does not. However, she then adds, sadly, "They treat me like I'm not real" (228). What, exactly, does Rachel mean by this statement? It seems that she is implying that she recognizes that scientists treat animals as if they are not real. What, then, does "real" mean to Rachel? In order to understand this, it is important to note that Murphy presents this narrative, of her worrying that she is not "real" or that she is being treated as if she is not real, continuously throughout the story.

A noteworthy way that Rachel seems to attempt to hold on to her humanity – her *realness* – is by engaging with storytelling. As Dr. Jacobs recounts to her the story of what he did to save her, Rachel learns that "The doctor named the chimp Rachel and raised her as his own daughter. Since the limitations of the chimpanzee larynx made speech very difficult, he instructed her in ASL. He taught her to read and to write. They were good friends, the best of companions" (Murphy 219). Rachel's engagement with stories, human language and communication may, arguably, allow her to feel human. Additionally, it is important to her to hold on to the happy stories that she knows: "The doctor, whose name was Aaron Jacobs, and the chimp named Rachel lived happily ever after. Rachel likes fairy tales and she likes happy endings. She has the mind of a teenage girl, but the innocent heart of a young chimp" (219). Nonetheless, her love for fairy tales cannot protect her, because she cannot find solace in having an "innocent heart of a

young chimp" – rather, Rachel is left feeling like she is wearing a mask, or like she is some sort of imposter. Before the death of her father, Rachel would express to him that she longs to be a "real girl" (Murphy 239). She remembers a time at the ranch where her father told her the story of Pinocchio, a little puppet who wanted to be a real boy. At the end of the story, a fairy grants him this wish as a reward for him being brave and kind throughout his adventures. Rachel cries in response to hearing this story. When her father asks why, she "rub[s] her eyes on the backs of her hairy hands" and signs to him "I want to be a real girl" (239). Even though her father insists that she is a real girl, "somehow she had never believed him" (Murphy 240). Pinocchio, who is the main character of a children's book with fairy tale elements, begins as a nonhuman and is transformed into a human. It is not uncommon in fairy tales or folk tales for a human to be turned into an animal, and then eventually achieve their desired metamorphosis by transforming back into a human ("The Frog Prince" as collected by the Brothers Grimm, and *The Swan Princess*, an animated film loosely based *Swan Lake*, said to be inspired by a German folk tale, are just a couple of examples). In these tales, and in Murphy's story, it only makes sense that the transformed protagonist wants to return to being human – to be human is the desired state, and what they believe to mean "real".

In addition to this, Rachel undergoes an identity crisis when trying to come to terms with her new, foreign body. As the story explains, "Sometimes, when Rachel looks at her gnarled brown fingers, they seem alien, wrong, out of place. She remembers having small, pale, delicate hands" (Murphy 219). Even though Rachel can see that she now has the body of a chimpanzee, she also remembers being a pale, blonde-haired girl. Her identity is disrupted by recognizing both images of herself, but literally seeing an image that feels "alien, wrong, out of place" (219). Yet, it is important to note that even when she feels that her body is alien, she never thinks her *memories*

are out of place. As previously explained, she has memories of her chimpanzee mom and being in cages. She never dismisses these memories or treats them as if they are not real. Along with memories of her chimpanzee mom, she remembers other chimpanzees: "She remembers when she was a young chimp: she huddled with five other adolescent chimps in the stuffy freight compartment of a train, frightened by the alien smells and sounds" (Murphy 220). The question of who's feelings are being captured and properly represented here – Rachel's or the chimpanzee's – is a complicated one. On the one hand, we can argue that we only get to hear about what Rachel sees as "alien, wrong, out of place"; we are not given any insight as to what the chimpanzee feels is "alien, wrong, out of place", nor any tangible proof that a part of the chimpanzee's mind still truly exists, other than memories and her body. On the other hand, we can also make the argument that by drawing attention to the memories and life of the chimpanzee, the narrative is arguing for a posthuman sense of interconnectedness by showing readers how human lives are easily touched by animals, and by making room for animal stories alongside human ones. Additionally, I would argue that Murphy is subtly asking readers to recognize how the chimpanzee was also an individual. The text itself, by doing this, attempts to show care towards the chimpanzee's identity and her life.

However, these two different memories existing simultaneously and Rachel being able to "remember" the chimpanzee memories also opens a new issue worth considering. Is *Rachel* actually the chimpanzee? Has the essence of who the chimpanzee was now been overwritten by the personality of Rachel? Does the fact that she now lives in the brain and body of the chimpanzee mean that those memories are hers, when she did not actually live those memories? Furthermore, in these passages showing Rachel's disjointed memories, Rachel the chimpanzee is always referred to as "She". Of course, the chimpanzee is also female and can also be referred to

as “She.” It is likely safe to assume, however, that when we read “She remembers when she was a young chimp”, it is Rachel and not the chimpanzee that the reader is supposed to think of. While the use of the “she” in these passages may suggest that the chimpanzee, the individual, is gone (or mostly gone), I would argue that allowing Rachel to experience the memories of the chimpanzee is a way for the Murphy to demonstrate that the life of the chimpanzee cannot be swept under the rug. Furthermore, as Ferreira points out, “As Rachel's adjustment continues, the story prompts us to realize that, although Jacobs was a loving father to Rachel as his daughter, he simultaneously treated the previously existing chimp as a thing, transforming her in order to revive” (Ferreira 228). Indeed, and while Dr. Jacobs was a “loving father”, the idea of his lovingness becomes complicated when we recognize how he subjected his daughter to a bodily violation, and consequently, a serious identity crisis. And so, from the moment Rachel dies and her father decides to preserve her mind in a chimpanzee, Rachel and the chimpanzee both are subjected to discomfort, abuse from scientists, and mental disjunction.

At this point, let us return to the character of Jake; the slow-witted but kind-hearted janitor is the only human in the story who cares enough to offer Rachel some solace away from her captivity. Jake, while clearly aware that that there is something out of the ordinary about Rachel (because of the messages she signs to him), does not believe that she is a human girl, and still sees her as an animal. Thus, the argument that he is only kind to her because he believes she is a human would not stand. It may be true that he sees her as expressing human concerns (an identity crisis, wanting to be released from “jail”), but he never indicates any belief that he thinks she *is* human. His kindness towards her is always a kindness towards an animal, a hope that this animal, with its physical and mental anguish, can feel less like a “thing.” The primary way he expresses compassion is by letting her out of her cage sometimes at night. Rachel convinces Jake

to let her out, even promising to help him work (Murphy 228). After promising Jake that she will not try to run away (a concern Jake has because he does not want to get fired), Jake then releases her from her cage sometimes at night, and she helps him mop the center and pick up trash. During these nights, she is allowed to roam farther than the cage allows, explore the center, and look outside up at the night sky. Thus, even though he tells Rachel earlier that her cage is not "jail," I would argue that since Jake decides to let her out sometimes, thus implying that he recognizes how it effects her wellbeing, the reader is still supposed to see Rachel as a quasi-prisoner. Furthermore, when Rachel tells Jake about "the men who shot her and woman who pricked her with a needle" when she first arrived at the center, Jake nods, seemingly sympathizing with her distress, and signs "The people here are crazy" (Murphy 229). Even though Jake likely understands that these scientists are just doing their job, his choice of the word "crazy' implies that he does not agree with the violent methods the workers take when handling the animals. While Jake may be aware that he is not in a privileged, higher-up position to drastically change the animals lives for the better, he can at least express genuine sympathy towards their oppression. Jake is not in a position where he feels that he can care-for, but he certainly cares-about.

Rachel, too, begins to understand animal oppression, not only when she experiences it herself, but when she sympathizes with other chimpanzees in the center. Rachel gradually forms a bond with Johnson, an older male chimpanzee. At first, Rachel is intimidated by Johnson. A worker links Rachel's cage with the cage next to Johnson's and opens the doors, telling Johnson that he brought him a "new little girlfriend" (Murphy 230). Johnson "sniff[s] around the door in the wire mesh that joins their cages", and Rachel "watches him anxiously" (Murphy 231). She spends the rest of the day pacing back and forth in her cage. Rachel recognizes that both she and

Johnson are essentially prisoners in the Primate Research Center. Both are suffering beings, anxious and restless, and they are both held captive. Throughout the story, Rachel not only has to confront animal suffering at the hands of experimentation, but also recognize how easy it is for her to be subjected to it as well when she does not have her original, human, young girl body. Rachel has a gradual epiphany throughout the story where she recognizes the reality of animal suffering in connection with humans. This sense of community Rachel feels with Johnson is what prompts her to take him with her when she decides to escape from the center. One night, when Jake is asleep after having too much to drink, she gently leads a reluctant Johnson out of his cage, and she "takes Johnson by the hand and leads him into the desert" (Murphy 238). Right before this moment, Rachel, feeling rejected by Jake and only partially understanding that she is in heat, turns to Johnson and allows him to mate with her. While scholars have read this scene as pivotal for her coming-of-age story, I am less interested in reading this from a girlhood lens, yet more interested in noting how this moment cements a posthumanist connection with Johnson. Before their mating, we see a hint of acceptance that is to come when she decides to teach Johnson ASL so she can communicate with them, and when she feels less fear at the action of him grooming her fur, but more comfort (Murphy 236). With this moment of mating, Rachel further accepts her chimp-nature, her animality, and her hybridity. This acceptance of this new part of identity allows her to feel comfortable with Johnson. Later, when they are out in the wild and on the run from the center, we learn that she "feels protective toward him [Johnson]" and that "At the same time, having him with her gives her courage. He knows only a few gestures in ASL, but he does not need to speak. His presence is comfort enough" (Murphy 239).

Near the end of the story, Rachel has a dream where she is at her home on the ranch. During this dream, she first has "long blonde hair and pale white skin", and is crying and wandering the

house, “searching for something that she has lost” (Murphy 242). She then comes face to face with her chimpanzee identity: “When she hears coyotes howling, she looks through a window at the darkness outside. The face that looks in at her has jug-handle ears and shaggy hair. When she sees the face, she cries out in recognition and opens the window to let herself in” (242). This “recognition” and acceptance of her chimpanzee face that she sees reflected back at her in the window and “let[ting] herself in” indicates her newfound acceptance of how she has been forever changed by other ways of being in the world. As Lisa Tuttle explains, in her discussion of Rachel’s metamorphosis, “Rachel’s human and animal selves accept each other, and she becomes fully integrated” (Tuttle 100). She accepts that she is now a hybrid, that part of her is chimpanzee, and that without a recognition and acceptance of that part, she would continue to feel a significant fracture in her identity.

It is important to note as well that near the end of the story that Rachel is also humanized when her father leaves all his possessions to her in his will. One morning, while on the run, Rachel picks up a newspaper. In the paper, she sees an interview with a woman who claimed she saw Rachel, an interview with the director of the Primate Research Center, and “the biggest story” which is “an investigative piece”. In this piece, “The reporter reveals that he has tracked down Aaron Jacobs’ lawyer and learned that Jacobs left a will. In this will, he bequeathed all his possessions—including his house and surrounding land—to ‘Rachel, the chimp I acknowledge as my daughter’” (Murphy 241). What could Murphy want the readers to interpret from the author’s decision to have Rachel’s father leave her everything in his will? Should they read this simply as a normal act of a father – who still sees his chimpanzee daughter as a “real girl” – leaving their possessions to their child? Or is there more being implied here? Ferreira notes that the significance of the discovery of Dr. Jacobs’ will bequeathing everything to Rachel is that it

"allows Rachel and Johnson to live undisturbed in the ranch house" and that "Rachel achieves her fairy-tale ending of happily-ever-after, although not quite in the manner she anticipated" (Ferreira,). Indeed, we can argue that the author would like us to recognize that animals should have rights and, perhaps more specifically, the liberty to live a life in peace and undisturbed by human agendas. This decision, to leave human possessions to a non-human animal in one's will, certainly comments on the complexity of human-animal hybridity. As Elaine Graham notes, "Hybrids… are the vehicles through which it is possible to understand the fabricated character of all things, by virtue of the boundaries they cross and the limits they unsettle" (Graham 37). As we know, animals cannot legally own property (or any possession). Yet, the story crosses this boundary; the story ends "happily", with Rachel granted rights to the ranch house. However, we cannot forget that this only comes into fruition because the chimpanzee has a human mind living inside of it as well. Dr. Jacobs certainly would not have left his home to a random chimpanzee, or any other animal.

Nonetheless, despite the human part of the bequeathed, one could argue that the story still tries to draw attention to the caring of animals. The author herself, in an interview with Carl Slaughter for the fanzine *SF Signal*, says that Rachel's point of view does, indeed, recognize the studies being done on the animals as "terrible and cruel" (Slaughter). Also, much like Mija at the end of the film *Okja*, it would be easy to see how Rachel is forever altered by her experiences in the Primate Research Center. While Mija does not have the power to do much about the cruel actions carried out in the slaughterhouse, she is certainly impacted by her newfound awareness of the slaughterhouse's cruel realities. Similarly, Rachel knows the cruel realities of the Primate Research Center. She listens to conversations of men who come in and out of the center: "In indifferent tones, the men talk of horrible things" (Murphy 233). What are these horrible things?

For one, she learns that some of the pregnant chimpanzees are being injected with male hormones to determine how that will affect the female offspring, and that a group of infants are being fed a low protein diet to se how it will affect their brain development. Even though Rachel may live "happily ever after" with Johnson at the ranch house, she will have to carry this knowledge with her.

However, can we argue that "Rachel in Love" succeeds in drawing attention to animal voices? Joan Haran argues that even though Dr. Jacobs does deprive Rachel of self-determination, he does give her some tools for self-empowerment: "by instructing her in sign language (ASL), teaching her to read and write, and enabling her to understand herself as a subject of her own story, Jacobs does provide her with the resources to empower herself" (Haran 257). On one hand, we can argue that Rachel, who is now partially non-human animal, is granted a voice, and so the story does make space for animal voices. However, as the story lets us know early on, the only reason why Rachel needs this "empowerment" is because her father decided the rest of her life for her by forcing her to continue living in a foreign body. Of course, this "empowerment" also comes with the chimpanzee's loss of power.

Furthermore, in a phone interview with Haran, Murphy explained that she did not write the story with animal rights in mind (Haran 261). In her interview with Carl Slaughter for *SF Signal* fanzine, she more emphasizes Rachel's "relatability": "I think readers identify with Rachel … I think we've all felt misunderstood at one time or the other. I think all of us have had, at one time or another, a sense that we don't belong, that no one can understand us. … Figuring out how you fit into the world is part of growing up. For Rachel, that task is tougher than for any of us" (Slaughter). These explanations seem to imply that this story is less interested in asserting

the "voices" or lives of animals and is more interested in using the chimpanzee as a *symbol*. John Simons, in his discussion of animal rights and literary representation, states that "The symbol is, perhaps, the most common form of representation of animals," but nonetheless asserts that animals themselves are not symbols (Simons 7). Indeed, it would be fair to argue that the chimpanzee is simply a symbol for Rachel's coming-of-age narrative where she must come to terms with being "different" and feelings of unbelonging. It would also be reasonable to argue that the chimpanzee – before the uploading of Rachel – is scarcely an animal at all in the story. True, as I have outlined before, the readers do gain access to the chimpanzee's memories. Yet, as also mentioned previously, it is Rachel accessing these memories. Many of these memories are also solely ones of suffering and captivity. These memories seem to reduce the life of a chimpanzee to nothing more than that. Even the memories of the chimpanzee's mother are of when the chimpanzee was with her mother in a cage. Rachel recalls the chimpanzee's memories, but it would be hard to argue that we hear the animal "voice", outside of the moment where Rachel sees her chimpanzee face in the mirror and welcomes her in. While the story does offer us moments of what the research center would look like in the eyes of a chimpanzee, we are given little access to the animal's "umwelt", Uexküll's term referring to an organism's unique world, or their "bubble", where they exist, perceive, and carry out their lives. The reader does not see enough of the intricacies of the chimpanzee's life.

Donovan argues that for an animal aesthetics of care, we should try to seek literary texts where animals are not, as Simons puts it, "displaced metaphors for the human" (Donovan 100; Armstrong 6). Of course, when attempting to capture an animal voice in literature, we will always be bound by our human limitations. Nonetheless, we should not simply give up trying to represent animal voices in literature altogether. As Donovan explains, there is a "mimetic

comportment" required in an aesthetics of care, which sees the author "engag[ing] with her subject matter in an I-thou relationship where the other is perceived as a subject, not an object, as in the I-it construction" (Donovan 2016, 92). She further explains that "Such engagement requires paying emotional as well as intellectual attention to the particular other and his or her milieu. It means being with the subjects, seeing through their eyes, feeling through their bodies" (Donovan 92). It is true that we certainly encounter moments in "Rachel in Love" where Rachel is "feeling through" the body of the chimpanzee. Yet, what if we were given a text that features human mind upload into an animal body that offers more detailed, more descriptive prose, reflecting more fully on a multitude of animal experiences and sensations?

Moving from a story published in 1987 to a novel published in 2016, we see such progress through the details and attention given to many species of animal voices and the animal umwelt in Emma Geen's *The Many Selves of Katherine North.* While "Rachel in Love" has its limitations when considering the voice of the animal, Geen's novel – while also with its own drawbacks – arguably takes a larger step towards capturing animal voices. In this novel, the animal viewpoint is "not to be ignored as if it were nonexistent" and is instead conveyed so their realities are "detailed and included as part of the whole picture" (Donovan 111)

Emma Geen's *The Many Selves of Katherine North*

The Many Selves of Katherine North, published in 2016, is set in a near future in Bristol, UK. The protagonist, Katherine (often referred to as Kit), works for the company ShenCorp as a "phenomenaut". The job of the phenomenaut is to inhabit, or "jump" (as the novel describes it)

into the bodies of lab grown animals, called "ResExtendas" (or "Ressies", for short).[27] These animals, which are essentially synthetic biological 3D print facsimiles of animal bodies, integrate into the natural habitats of real animals to collect data for ShenCorp's research purposes. Since these animal bodies have been engineered to only possess a cerebellum, these animal replicas do not have fully formed brains. What this essentially means is that it would be hard to argue that they have a full sense of self, or enough personal awareness. While retaining their own consciousness/higher brain functions, the phenomenauts share the cerebellum of the ResExtenda to carry out fieldwork in the wild. While this happens, an engineer's voice guides them in their head to help them proceed with the research mission. In the words of Vint, "just as astronauts "sail" among the stars, phenomenauts journey into the phenomenological experiences of different bodies" ("Within the Right Words…" 500).

Kit is nineteen years old and has been a phenomenaut at ShenCorp for the longest time. She has been working as a phenomenaut for seven years, for more time than any other employee there. As she "jumps" and projects her consciousness into the bodies of the ResExtendas, she experiences many other lives, ranging from fighting as a predator animal, running like a prey animals, to living like a bird, and even as a whale. For Kit, the hope has always been that this research will help humans better understand the animals that live alongside them. However, when ShenCorp's goals take a more commercial turn, Kit no longer feels secure or optimistic about the work she does for the company. The rest of the novel then sees Kit try to navigate around ShenCorp's goals to allow consumers to "jump" into the bodies of animals – or even

[27] The novel gives little information regarding the printing process of these lab grown animals. The novel constantly refers to a "printer" that creates the animals, but no detail is given as to what, exactly, that process looks like.

other humans – for entertainment purposes. Kit's narrative is told through a series of flashbacks, offering the reader details of her time working at ShenCorp and gradually explaining why she left. Her story is divided into two parts: "Uncanny Shift" and "Come Home". The chapters labeled "Uncanny Shift" show Kit entering a new world when she embodies a ResExtenda. The chapters labeled "Come Home" chronicle the moments when her consciousness is leaving the ResExtenda and returning to her human body, as well as the moments afterward.

While it is true that Kit jumps into these bodies and experiences what their body is feeling and perceiving, the novel never neglects the fact that the animal experiences are what Kit, the *human*, experiences and interprets. Additionally, the human experiences and interprets these moments with the help of technology. Her experience in a ResExtenda is material and embodied, but it is also virtual (Vint, 2020, 502). A computer processes the data she experiences while in the ResExtenda and then determines the best way to transfer them to human senses. While in the wild during a research mission, the ResExtendas also function well because many wild animals will perceive the ResExtenda as just another animal of their species – and so, they will behave normally/naturally towards them. As Kit experiences the bodies of many different animals, she outlines her experience in first-person narration. While we know that it is the human interpreting the experiences while in the ResExtenda body, this choice of first-person narration subtly implies that there is an "I" when it comes to animals, thus reminding readers that there are "multiple worlds inhabited by various species" and that these species possess "agency and affect, even if they experience these qualities differently than do humans" (Vint, 2020, 500). As Donovan also explains, "Animal-standpoint criticism starts therefore from the premise that animals are seats of consciousness—subjects, not objects" and that animals "want to live and thrive" and "have identifiable desires and needs, many of which we human animals share with them" (Donovan

2016, 99). All of this, then, "behooves us as ethical subjects to hear the 'different voices' of these fellow creatures" (99). Kit consistently ponders the best way to go about this.

As an employee at ShenCorp with little influence or power over decision making, Kit is faced with an ethical dilemma when ShenCorp tells her that they have decided to create certain ResExtendas for "body tourism". This "body tourism" entails offering paying customers to jump into nonhuman animal bodies for their own entertainment. This decision does not sit well with Kit. As I mentioned, Kit works as a phenomenaut in hopes of making some sort of difference when it comes to how humans perceive and treat animals. Her reason for working in the research division, as a phenomenaut, comes from her feelings of helplessness about many animal species becoming extinct. Also, Kit's elderly mother, who was a zoologist before losing her mind to dementia, passed down to Kit an appreciation and a sense of love and respect towards animals. This appreciation for animals ultimately turns Kit away from ShenCorp's corporate goals. It is worth examining, then, the novel's attitude towards body tourism in comparison to its mindset regarding technology being used on animal bodies for a utilitarian purpose of learning more.

While one could make the argument that the creation of the ResExtendas is acceptable because the research will benefit animals and further our knowledge of them, I would argue that Geen also suggests that the ethics of such creations should be considered. As I explained earlier, the ResExtendas only have a cerebellum. The cerebellum is the part of the brain that is primarily responsible for physical movement, while the neocortex is the part of the brain where higher cognitive functioning and emotion is thought to originate from. One could argue that the ResExtenda bodies are essentially organic robots, with programmed functions and no sense of individuality. Is it ethically caring, then, to create a replica of an animal body if that replica is not

fully sentient? If there is no "I" in the animal body, since that body is not equipped to have any true sense of self awareness, is there any ethical issue with creating it? This is certainly a complex question. Yet this chapter, much like the chapters before, is then less concerned with the ethics of creating the animal bodies, than *more* so concerned with the treatment of them during post-creation. However, as Lynda Birke notes, even though using animals in the laboratory is problematic, there are still "many people working with laboratory animals [who] find ways of expressing concerns over ethics" (328). These types of people are present in Geen's novel, as shown with Kit. Geen's novel demonstrates that what is key to allowing us to widen our care approaches and our empathetic capacities towards animals is a willing attention to how laboratory animal bodies are treated. As the novel suggests, advancements in technology can certainly help us appreciate the *umwelt* of nonhuman animals, and can cultivate empathy, but exploiting these technologies can hinder these developments and result in a lack of ethical care. Empathy, as the novel demonstrates, is essential for caring relations because a desire to understand can easily lead to a desire to preserve wellbeing.

There are a few forms of empathy situated in the ethics of care tradition. Lori Gruen, for example, explains her ideas regarding empathy and animals: **"**Empathetic engagement with other animals is a form of moral attention that enhances our awareness of the claims they make on us" and this engagement "helps us to reorient our ethical sensibilities" (*Ethics and Animals* 206). Kenneth Shapiro explains kinesthetic empathy by explaining that he tries to understand his dog by "imaginatively entering the dog's bodily movements and reactions", with the purpose of trying to decipher the dog's way of seeing the world (Donovan "Attention to Suffering", 179). Geen is essentially asking the readers to practice this form of kinesthetic empathy as they read Kit's thoughts as she jumps into the bodies of many different animals. Also, Edith Stein

discusses sensual empathy, which can be thought of as "a sensing of the body of another, which requires an acknowledgment of the other's suffering" (Donovan "Attention to Suffering", 179). By not only jumping into the bodies of other animals, but also consistently and openly feeling compassion for them and their circumstances, Kit experiences sensual empathy. As I will explain, she is very attuned to her senses while in the body of an animal, as well as attuned to the bodies of other animals around her.

There is a considerable amount of detail about phenomenological experience in the novel, as revealed when the narrative describes Kit's jumps into many different ResExtendas. In her disclaimer, Geen describes all the research she did in preparation for writing this novel, ranging from reading many books and documentaries and pestering her naturalist friends (Geen 351). This willingness to do extensive research into the animals she was writing about falls in line with Donovan's care approach and Costello's belief in literary value. Donovan explains what should be kept in mind when acknowledging that animals are subjects: "The knowledge of these subjects' ways of being requires experiential attentiveness to their unique shapes, expressions, and patterns, as well as to their contextual habitats. It requires listening to their diverse voices" (*The Aesthetics of Care* 73). Geen attempts to represent this animal diversity and encourages readers to consider what it means to not only listen to animal voices, but to accept the idea that they have voices. Geen also seems to fall in line with Elizabeth Costello's beliefs of prioritizing literature's value of representing the animal experience over philosophy and theory. As Geen explains in her disclaimer,

> For all the good that science achieves, it's important not to lose sight of the fact that it's a discourse of the third person; its aim, the seizing and solidifying of the other. Science permits only one Truth, one Reality. But what if there are other valid ways of knowing?

> What if the world is not one, but multitude, with as many ways of being as there are beings? What if literature were the opportunity to glimpse such refractions, thrown by the world as though from a diamond? (351-52).

With her literary engagement, Geen attempts not to "seize" or "solidify" the animal other, but to essentially let loose the animal by allowing their bodily intricacies to be represented, their lives to be imagined, and their voices and possible perspectives to be heard. I use the word "possible" here to draw awareness to the fact that, even with her extensive research, these perspectives may not entirely be true, since we cannot literally enter the body of an animal. Nonetheless, empathetic cultivation is still possible here because even if the narration of animal experience is not, in totality, "true", it still "opens us imaginatively and, ultimately, ethically to thinking about animals as beings who have emotions, desires, and cognitions" (Vint "Without the Right Words…", 500). With her novel, Geen imagines a scenario where accessing different modes of being is made possible via the technology that creates ResExtendas and allows human minds to enter their bodies. Yet, the novel suggests that if they want to gain the most that they can from the experience, the phenomenauts then need to do more than just enter the ResExtenda bodies. They need to do so with the attitude that they will truly attempt to understand the animal, accepting that "the world is not one, but multiple" (Geen 351).

With this acceptance, the novel demonstrates human attempts at relating to the animal, most prominently with the character of Kit. In a scene where Kit is in the body of a rattlesnake, she looks at a mirror to try and get used to her body, taking in the "flaky scales" and the "dryness of [her] skin", and explains a key role of the phenemenaut: "The trick of being a phenomenaut is to integrate them into the sense of a whole. This Ressy isn't just an object, but a way of being me" (Geen 144). Is the novel suggesting though that the ResExtenda is truly a way of being her?

An argument can be made that Kit does not experience an animal's sense of "I" since she still retains and experiences her own thoughts while in the animal body. This is a valid line of reasoning yet let us also think about the Come Home stage. Even after the Come Home stage, Kit's own sense of identity seems to relate less to humans and more to the bodies of the animals she has inhabited. As João Vicente Faustino observes, this identity fracture is "also the result of a critical view with respect to the human condition, which Kit begins progressively to associate with artificiality and the instrumentalization of the other" (Faustino 72). In other words, the empathy she feels for the animals in these situations causes her to disassociate from humans and the way that they tend to treat animal bodies like objects. Faustino also explains that "it fundamentally derives from the desire of the protagonist [Kit] to develop a better understanding of the animal experience" (Faustino 72). Kit has always been vocal about wanting to gain more knowledge about animals, an action that she recognizes means not only seeing animals in the abstract. As she reflects, "It was a shock when I started at ShenCorp and realized that some people were more interested in animals in the abstract. That the environment was The Environment, a creature the authority of its Latin name, sightings to collect like butterflies pinned to blotting paper, collecting a second fur of dust" (Geen 42). By inhabiting the body of a ResExtenda, Kit is stepping (or "jumping") into another being's "shoes"; she must "wear their 'shoes' – their skin" (Geen 123) and learn what life is like for them. As to be expected as well, what she will learn from this experience will have some sort of influence on her sense of identity. Much like Mija from *Okja*, Rachel from "Rachel in Love", and Cleo from *Lives of the Monster Dogs,* proximity to both biotech animals and natural animals and their unique forms of oppression allows Kit to gain a stronger sense of awareness for the overall lack of care society often affords animals. Throughout the novel, Kit refuses to be brainwashed by corporate power's

mistreatment of animals; rather, her empathetic connection to animals, through her partial experiences while in their bodies, allows her to cultivate a relation to animal care.

As she continues to "jump" into many different animal bodies, Kit subsequently continues to discover the complexities and nuances of various modes of animal communications and different bodily identities. For example, in one chapter we read about Kit inhabiting the body of a spider. When she is in the spider's body at first, Kit admits that her perception is "completely skewed" (Geen 33). She recognizes that the spider's perception of the world is vastly different from hers, and wonders if trying to understand the spider's experience is impossible: "With invertebrates I have to wonder if I'm actually gaining any understanding or if I'm just distorting the incomprehensible to fit human constructs. Of course, there is that possibility with every Ressy, but it rarely feels such a farce as this" (Geen 35). Clearly, Kit *wants* to gain understanding, but worries that it may not happen. Yet, Kit quickly realizes that it is probably wasteful to spend too much time wondering and worrying about this: "these thoughts are distracting me from the Ressy impulses. … No more philosophizing" (35). In other words, she realizes that she needs to try her best to be in the moment. And so, Kit instead decides to quit dismissing any ability she may have to understand the spider, and instead embraces the spider's bodily identity. For example, she thinks about how she is "dissolving into the web" and that "This silk is more than my home, it's become an extension of my skin" (Geen 36). What we see happening here can be explained by Donna Haraway's concept of "becoming-with", which she describes as "becoming worldly" (Haraway 3). Haraway describes her concept of becoming-with by looking at cross-species relations, emphasizing then that being "worldly" means being attentive to the multi-species entangled world we live in. To be attentive to this means to recognize that there are, indeed, many different ways of "being." While Kit – being not only a

phenomenaut but also an animal enthusiast – is aware of the ways in which animals and humans affect and influence one another, the experiences of "jumping" brings this becoming-with immediately to the forefront. Kit cannot be in a new body and disregard the "worldliness" of the Earth she inhabits. While in a spider's body and recognizing and accepting that the silk has "become an extension" of her skin, Kit acknowledges the distinct life of a spider. By admitting that she needs to live in the moment and stop "philosophizing" herself into paralysis, Kit understands that animals – like humans – have agency. And so, even though the phenomenaut's experience inhabiting an animal body will always be filtered by their own human mind, Kit is still able to empathize with the ResExtendas that she embodies and tries to detach herself from strictly human ways of thinking.

One of the ways she tries to undergo this detachment is by recognizing the limits of human language. As Kit reflects, early in the novel, "Where did this need to speak come from? I've always had an uneasy relationship with such human quirks" (Geen 2). I will come back to her "uneasiness" later on, but for now it is important to pay attention to how she is immediately established as a character who does not necessarily hold the persistent necessity of human language in high esteem. In another example, Kit reflects on the continuous process of her and her guide, Buckley, writing reports on the jumps. Feeling skeptical at how accurate they can be, she thinks to herself, "how do you cram the living experience onto a page? The words available to me were never enough. Something would always slip the sentences. Human language developed around human bodies, it never quite fits other ways of being" (Geen 66). Kit realizes that human language is not enough to truly capture the experience of inhabiting a nonhuman animal's body, since perhaps there are not even the words to properly explain such a phenomenon. For example, when inhabiting the body of an octopus and having just escaped a

predator, she thinks to herself, “not sure what to think of the fact that my skin can sense colors when I can’t. Though the ability did just save me from becoming dinner. Perhaps it’s not so bad my tentacles have ideas of their own” (Geen 81). Kit does not have the words to make sense of the fact that her skin can sense colours. Yet, by stating that tentacles have ideas of their own, she is acknowledging the existence of nonhuman bodily methods of understanding. Furthermore, she recognizes that what is “not so bad” is this inability to make sense of the unknown, and that it is “not so bad” that there are different ways of living that feel foreign to the human experience.

This realization shows that Kit has the capacity to empathize with animals by accepting the validity and value of other modes of communication. In another “jumping” scene, Kit inhabits the body of a whale. While in the body, she is drawn to the sound and the feeling of whale song coming from a group of other whales. As she explains, “I face into their voices. The first is lilted with an inquisitive note, the return a happy bounce. My lungs swell with the desire to join them but embarrassment holds me back” (Geen 225). However, this human embarrassment ultimately does not overpower her desire to learn. Kit allows herself to embrace this experience of whale communication, influenced by sonar, touch, and sound: “We swim for what feels like hours. Bodies barrelling, the stroke of fins, partners to the dance. Its strong flank nudges mine to keep me in line, I’m happy to be shown the steps, to join the rhythm of a shared heartbeat” (Geen 226). This dance relies on Kit being attentive to the other whale, which demonstrates that “The truth or honesty of nonlinguistic embodied communication depends on looking back and greeting significant others, again and again” (Haraway 27). Faustino also considers this scene with the whale and explains that “Language is here represented as a pure expression of the body, as enactment and as an enabler of encounter” (Faustino 68). This pure expression of the body that Kit experiences while inhabiting a whale’s body is what allows her to

feel Stein's sensual empathy and to recognise how different animal bodies can produce their own language. This recognition is important because, as Nel Noddings explains, enhancing care relations means "attending to those we encounter, listening to their expressed needs, and responding positively if possible" (Noddings 13). Here, in this example with Kit and the whale, "positively" means being eager and willing to learn. Also, as Haraway unites care with curiosity, and "knowing more at the end of the day than at the beginning" (Haraway 36). To listen and respond, and to give in to our curiosity in order to learn from it, we must first be willing to recognize and accept that animals can, indeed, communicate with us and be our teachers.

Kit recognizes, then, that an unspoken language should not be considered less of one. Throughout the novel, Kit has an attachment to and a curiosity about a specific fox that lives in the wild. When trying to approach this fox, she considers the fox's look on her face: "That look is so intelligent that it is hard to believe that she doesn't understand *something*. Because even if English is useless, that doesn't mean communication is impossible. … Sometimes a body is all the language you need" (Geen 18). In his discussion of animal language, Jacques Derrida explains that what is important is not "a matter of 'giving speech back' to animals but perhaps of acceding to a thinking, however fabulous and chimerical it might be, that thinks the absence of the name and of the word otherwise, as something other than a privation" (Derrida 48). Derrida imagines a language that would not feel bound to privilege speakers over non-speakers. Kit aligns herself with Derrida's way of thinking, as evidenced by her thoughts regarding the whale and the fox. She does not believe that we should see animals as lacking in proper or the highest of experiences solely because they do not participate in human language.

In another scene, after leaving a fox's body, Kit clearly knows that the body she now inhabits (hers) is no longer that of a fox. Yet, Kit certainly cannot rely on human language to help her make sense of the experience she went through when she "died" while inside the body of a fox. While inside the body, Kit dies after being run over by a car. She then quickly returns to her human body and is evidently distressed by this experience. As Faustino notes, "Kit is conscious of the materiality that provides the grounds for subjectivity. She is aware that when she inhabits another body, she is a different person" (Faustino 75). However, Buckley and other workers at ShenCorp continuously try to reassure her that it was not *her* who died, but the ResExtenda. Yet, she insists, "It [the ResExtenda body] was mine at the time. … I died in it" (44). As David Sztybel notes, "If we had an animal's experience of pleasure or pain, we would immediately call that a 'personal experience'" (248). Kit does indeed see the death as something she experienced personally. She is not, nor never was, a fox in totality; yet we can argue that it would be inaccurate to claim that she experienced a human death. After all, Kit's mind was inside an animal body, and it was that body that also experienced the sensation of pain. Faustino considers subjectivity in relation to the ResExtendas and the human mind inhabiting them: "Subjectivity and meaning are thus regarded as the fleeting product of interaction and relationality occurring within specific material conditions" (Faustino 75). Indeed, it is a fleeting product when Kit is in the body of a manufactured animal in one moment, and her own human body in another. Nonetheless, what does not "flee" is her *psychological* connection to the animal body. One way of looking at her insistence that *she* also experienced the death is that she is choosing to empathize with the fox body – or all foxes that die from human interference. As Sherryl Vint explains, "For Kit, then, identifying with the animal is not a mere recreational pastime but a committed project of mutualism: even though Kit's material body is not put at risk

during her Ressy projections, if she does not allow it to experience the hardships of animal life via the interface, she will learn nothing true" (Vint 502). In other words, Kit feels that the focus should not be on the fact that nothing happens – or can happen – to her own, human body while she is in the body of a ResExtenda. Rather, she wants to treat the harm that comes to the ResExtenda body as something true, with meaning. Furthermore, Kit also recognizes that what also matters is not only what a ResExtenda animal body goes through, but also the actions that that body carries out; in other words, what a human does while inside that body. With this realization, Kit ends up objecting to ShenCorp's eventual use of body tourism.

Originally, ShenCorp's ResExtendas are meant to be used for the purpose of researching animal behaviour and their environment. As previously mentioned, the phenomenauts can experience the ResExtenda's sensorium during the jumps, all the while they are continuously guided by a human engineer. The role of the human guide is to provide the phenomenaut with relevant information for the main goal of that research mission, which may range from crucial facts about the behaviour of the animal species that the phenomenaut is bodily inhabiting, the immediate environment, or any other potential dangers the phenomenaut may face. Another one of their roles is to try to keep them connected to the human world; for example, they may read them the news, thus keeping their mind even slightly tethered to human society and culture. As Kit reflects, "All the manuals recommend it: 'Keep the phenomenauts intellectually and emotionally engaged in the human world.' 'Retaining an attachment to the trappings of culture is the surest way of staving off nativism.' … no phenomenaut must ever relinquish their humanity" (Geen 37). While she has been projecting her consciousness into ResExtendas since she was seven, Kit is now nineteen and questioning the company's ethics. Her easy willingness to

question their ethics is likely conditioned by her ability to bodily and emotionally connect with the ResExtendas.

Kit's attitude towards creating the ResExtendas is evidently complicated. Faustino observes that Kit "does not seem to mind that the bodies of Ressies … are artificially created" and that "because they have no higher brain functions and no independent consciousness, Res-Extendas are not conceived of by Katherine as fully living beings, but only as instruments" (Faustino 74). Indeed, Kit may not seem *too* morally bothered by the fact that the ResExtendas, are artificially created and that humans are using them as tools. However, I would argue that when Kit visits the room where they print the ResExtendas, she is still aware of the ethical responsibilities these scientists have towards them. She recalls how a fellow phenomenaut cried at the sight of a partially formed ResExtenda, and thinks, "It's hard to make a rational argument that the process is harmful or wrong, yet every time I look into a printer, alarm bells go off in some primal part of my brain" (Geen 128). What are these alarm bells? Kit knows it would be hard to argue that the process of engineering animal bodies without a sense of consciousness is wrong, but she still feels uneasy about it. I would argue here that this uneasiness may come from an awareness that these animal bodies are *representing* natural animals.

Kit's awareness of this power of representation is further exacerbated when ShenCorp creates a copy of her body so she can be the "poster girl" for the company when they decide to start creating animal ResExtendas for commercial purposes. They create a copy of her body so someone else can jump into it, because they realize that she may not have the best public presence. Later in the novel, Kit comes face to face with ResExtenda copies of her own body. Kit feels great discomfort when seeing these bodies, even though she knows that the body, like the

ResExtenda animals, does not have a sense of consciousness. Vint writes that "The human body, like the human subject, is a product of both nature and culture. Both body and subject must maintain a sense of natural and stable boundaries by continually marking out the distance between what is self and what is not" (Vint, 2007, 17). While Kit of course knows that the ResExtenda copy of her body is not her, not her self, she recognizes that is *represents* her, and that "the material body is read by discourses" (Vint, 2007, 17). Graham argues that representations "build worlds" and that the ways in which something gets constituted is through representation practices (2002, 26). As she explains, representation "is designed to convince, to engender particular associations and invite active responses. Representational practices serve not only to portray and report, but to legitimize, to reproduce and to normalize; or to subvert, to contradict, or stabilize" (2002, 26). These ResExtenda copies of Kit's body are meant to deceive the public; ShenCorp essentially wants these bodies to reproduce Kit in a way that comes across as legitimate and believable. Furthermore, it would be unreasonable to expect Kit to look at the replica of her body and easily refrain from thinking to herself "this image represents me". Kit cannot ignore the symbolic message that is written on that body – this message tells her that her sense of self and security in her own bodily autonomy is insignificant to ShenCorp. This message also tells her that her body, in one way or another, must be in servitude to their capitalistic gain which has no qualms toward oppressing people (or beings) in lower positions. Knowing that her body was replicated and then seeing it being jumped into by other people (who have warmer or more friendly personalities fitting for a "poster girl") disturbs her sense of self.

These feelings of discomfort and unease likely play a factor in allowing Kit to realize that while the ResExtendas only have partially formed brains, that does not mean people should mistreat them or ignore the natural animals that they represent. When ShenCorp decides to profit

from their animal printing technologies by commercializing the experience of inhabiting an animal body through the creation of "Body Tourism", Kit is troubled by the lack of ethics of such a decision. Talking about the ResExtendas, she explains to Mr. Hughes (her boss) "… they're not conscious but that still doesn't mean … other subjectivities aren't a consumer item. Their habitats aren't playgrounds. … Phenomenautism is meant to be about understanding other perspectives, not buying them as some … luxury items" (Geen 190). Kit quickly realizes that most of the consumers of Body Tourism are not actually interested in understanding the perspectives of animals. She thinks to herself, "To reach any understanding of an animal, you have to play by the same rules. Ressies aren't a toy…" (Geen 112). Yet, as she soon learns, most of the consumers do seem to see these bodies as toys. As Faustino points out, "Kit can justify using the animal bodies if it serves the purpose of acquiring knowledge and understanding different modes of perceiving the world" (Faustino 74).

What Kit cannot accept, however, is treating animals as if they are not real – as if they are just an abstract idea. In the novel, the transition state (and the subsequent moments after) in which the phenomenaut is leaving the animal body and coming back to their human body is referred to as "Come Home". In a moment of Come Home, Kit recalls what it was like inhabiting the body of a spider. These thoughts then lead her to think of her mom, who was a zoologist, as she thinks to herself, "there wasn't a creature that she didn't love" (Geen 42). Kit then admits, "For the longest time that's what I thought zoologists did – loved. It was a shock when I started at ShenCorp and realized that some people were more interested in animals in the abstract. … sightings to collect like butterflies pinned to blotting paper" (Geen 42). To Kit, loving animals means refusing to see them in the abstract; loving them means to try and empathize with them, to try and put yourselves in their individual shoes.

Kit further thinks about the reality of bodily experiences for animals, and how some consumers of Body Tourism seem to neglect this reality: "To the elephant, the elephant is just everyday life. And like any other body, its life is eating, sleeping, mating, surviving, but apparently these aren't 'experiences' enough for the Tourism. Or, as Mr. Hughes is fond of saying, 'Where's the Wow?'" (Geen 262). Kit observes that the consumers who pay for Body Tourism experiences find that there is no "Wow" to be found in the banal details of an animal's daily life: "The beta tourists haven't been keen to engage with the banality of their bodies, as if defecating degrades them, despite carrying it out daily as a human. Misled by buzzwords and marketing, they really seem to believe that there is an 'animal experience' separable from the flesh" (Geen 263). Rather, it is not that the beta tourists see an "animal experience" as separable from the flesh, but as cast off from specific acts of the flesh. Many of the beta tourists do not dismiss the "thrill" of *violent* fleshly acts. Kit learns that the "Wow" for many of these body tourists is found when they engage in violence; while in an animal body, they may attack and kill other animals simply for entertainment. For example, Kit scolds a body tourist named Russell for randomly killing a mudskipper while inhabiting the body of a tiger (Geen 208). In the aftermath, Kit lashes out at Buckley. When she explains to him that she is mad that she killed the mudskipper "[f]or no reason" (Geen 208), Buckley scolds her: "This isn't research anymore. Your job is to help Russell enjoy himself and frankly you could be trying a lot harder at that" (Geen 208). Kit, outraged, calls Buckley out on his and ShenCorp's misguided expectations for the project: "You can say Tourism will increase empathy until you're blue in the face, but it hasn't, has it? Russell didn't care, Britta [another customer] didn't, it was all just an experience to them. Kill and trample over everything and then go home" (Geen 277).

What Kit is condemning here is an anthropocentric sense of entitlement that is demonstrated through senseless violence and conquering; Russel wants an embodied entertainment, and if "entertainment" means killing other animals while in the tiger-like body, then the killed animal must be sacrificed. This angers Kit because while it was all "just an experience" to Russel, it was a real death for the mudskipper Russel killed. Nonetheless, in the name of Body Tourism, treating the animal as easily sacrificial means there is no room to attach any "grievability" to the deaths of animals. This concept of "grievability" and "grievable lives" alludes to Judith Butler's theories in *Precarious Lives* and *Frames of War.* In these discussions, Butler makes an important distinction between lives that are considered "grievable" and those that are not. Butler argues that violence becomes more widespread and goes unchecked when it is directed at groups of people whose lives and therefore deaths are considered as not mattering, thus not worthy of grieving. While her discussion is mostly framed around human death, especially in the context of war, some scholars who have looked at her theories argue that they are also relevant to animal deaths, the ones that do and do not matter to human societies[28] (Taylor 2008, Stanescu 2012).

Suzanne Keen's *Empathy and the Novel* focuses on the novel's ability to create fictional worlds that provide "safe spaces", in which empathy can be felt and applied without the reader taking action. In Keen's words, ""…[F]ictional worlds provide a safe zone for readers' feeling empathy without a resultant demand on real world action" (4). While the reader knows that ResExtenda bodies and body tourism are not a part of the real world, they should, however,

[28] While there are moments where we see love and concern for the deaths of animals, typically this is limited to companion animals. For the billions of other animals that fall outside this category, their deaths go unnoticed, thus marking their deaths as not worthy of grief.

know that mudskippers (like that which Russel killed) and tigers (like the tiger body Russel inhabits) are real. With this scene, I would argue that the author is attempting to demonstrate how speculative imagination cannot be divorced from the real world. While I would not argue that the novel itself is necessarily demanding real world action, I would argue that Geen wants to make clear that fiction can influence how one sees and reconsiders the real world. By having Kit condemn Russel for his violent behaviour, she attempts to make the reader realize that senseless killing is unethical.

While Geen attempts to make the reader understand Kit's anger towards a body tourist killing for fun while inhabiting a ResExtenda, the reader may still wonder why they should care about the ethics, in a more general sense, of using ResExtendas for entertainment purposes. Is Kit against such practices even if the Body Tourist does not engage in any violence? Let us recall Graham's ideas regarding representation; a ResExtenda tiger represents a "real", inartificial tiger. Kit recognizes that if a consumer like Russel is not going to honor the tiger's true lived experience while in a tiger's body (or the equivalent of one), or just use its body to carry out meaningless acts of violence, then very likely a consumer who acts this way, will struggle – and perhaps even fail – to practice empathy towards natural tigers, or other animals, that are fully sentient and have desires and self-awareness. As mentioned earlier, Kit condemns Buckley for trying to argue that Body Tourism will lead to empathy since, as exhibited by Russel and Britta, it was "all just an experience" (Geen 277).

Rosi Braidotti looks at different perspectives that advance post-anthropocentrism and welcome affirmative transformations of subjectivity. One of these perspectives she calls "becoming-animal", an axis that focuses on solidarity between different species. As she states,

"the becoming-animal axis of transformation entails the displacement of anthropocentrism and the recognition of trans species solidarity on the basis of our being environmentally based, that is to say embodied, embedded and in symbiosis with other species" (*The Posthuman* 67). Kit's arguments for an ethical relationship grounded in empathy between humans and the ResExtenda animals recognizes this idea. Kit, humans, and the animal in which the RexExtenda represents have a common interest of living in the world with honour and respect. Furthermore, the novel suggests that this symbiosis, or activities of interdependence, between the ResExtenda body and the human mind must be ethically carried out with both care and caution in order to challenge anthropocentric thoughts and behaviours.

As Gruen argues, what is required for this is an "openness to learning and gathering information across differences, a commitment to critical reflection, and ideally consultation with people who have experience with and knowledge of the life-worlds of specific others" (*Entangled Empathy* 65). Kit is in a much higher position than the body tourists to advocate for empathy since she has had many years of experience as a phenonemaut, gathering information about animals and how they perceive the world. In hopes of preserving the potential for empathy, Kit cannot – and does not – remain silent while body tourists remain willfully ignorant of the animal body that they are inhabiting. And so, while Kit may have her understandable concerns regarding the creation of ResExtendas, her concerns are greater when she recognizes moments when a human's intent in using the ResExtenda is void of any desire to try and understand them. While I would not argue that the novel necessarily gives the message that good intentions are a valid excuse, I would argue that Geen attempts to convince the reader to hold more condemnation for people who use animals in a way where they do not have any intentions of helping them. It could be argued, perhaps, that it is safer to not create the ResExtenda bodies to

begin with. In Faustino's words, "The notions of fleeting subjectivities and modes of knowledge, dependent on material conditions, are very much present in the novel, as well as the idea that the other, whether human or animal, interpellates human subjects and demands of them responsible action" (Faustino 77).

Towards a conclusion: the discourse used to talk about biotech animals.

In Vint's words, discussing the connection between science fiction and human-animal studies, "sf has a long history of thinking about alterity, subjectivity, and the limits of the human which is precisely the terrain explored by much HAS [human-animal studies]" (2010, 2). Each of these topics are thought-out in "Rachel in Love" and *The Many Selves of Katherine North.* In this chapter, I have traced how Murphy's novelette and Geen's novel consider the limits of the human and asks readers to consider what it would mean to try and think our way into the existence of another being. Both texts demonstrate how empathy, rather than exploitation, is a possible and more ethical choice when dealing with the lives of nonhuman animals, even when they are presented in a technologized new form. Such empathy would imply using what knowledges we do have to acknowledge the existence of many different lived bodily worlds, and to try and recognize the difficulties, joys, and complexities that exist in these worlds.

In both texts, we see care and a lack thereof demonstrated toward both natural animals and biotech animals. In "Rachel in Love", the natural animals include the chimpanzee (before Rachel's mind was uploaded into her body) and the other chimpanzees in the facility. In *The Many Selves of Katherine North* the natural animals are the ones the ResExtenda bodies encounter in the wild. Both texts provide speculative examples of biotech animals through the science fiction trope of mind upload. Furthermore, fiction is a useful tool for cultivating empathy

and recognizing its importance because it allows us to try and understand an animal's experience, and to think about animals "as beings who have emotions, desires, and cognitions" (Vint "Without the Right Words…", 500).

Keeping in mind then that these animals have "emotions, desires, and cognitions", I am interested in moments in science fiction with especially speculative examples of biotech animals who are uplifted to the point where they can understand human speech and the nuances of body language and human gestures. I am interested in the texts that not only demonstrate how these animals may be affected by the expectations we have for them, but also the specific discourse we use to portray them as fitting a certain mold. For example, even though he never explicitly heard a human call him a "monster", Ludwig from Bakis' *The Lives of the Monster Dogs* clearly understood the associations around the idea of "monstrosity" and was evidently distressed after convincing himself that humans see him as a monster, reminiscent of Victor Frankenstein's "monster" and his own identity crisis.

In the next chapter, I consider the contrasting discourses of personhood and monstrosity, and how what the body looks like on the external or what the body physically does can influence the ideas that shape these discourses. This chapter considers the ways in which the biotech animals are framed as either persons or monsters, considering important questions regarding personhood and monstrosity and how they can relate to questions revolving around posthumanist thought and care approaches. What is to be done when they way we treat these biotech creations begins to influence how they see themselves? How do the novels suggest we take seriously the emotional effect we may have on them?

4.

Persons and Monsters: Dean Koontz's *Watchers* and Jeff Vandermeer's *Borne*

Note: Selections of this chapter that focus on *Borne* are borrowed/adapted from a paper I contributed as a chapter in *Transhumanism and Posthumanism in Twenty-First Century Narrative* (Routledge, 2021).

The previous chapter examined two speculative texts to discuss human relations with nonhuman bodies and how empathetic responses can come into play in one's literary engagement. While many elements in Murphy's novelette and Geen's novel allow us to ask what is required when we are directly confronted with the biotech animal/real animal body, this chapter takes those empathetic responses and contemplates the power of certain discourses we may use when discussing animal bodies and animal subjectivity. In this chapter, I look closely at Dean Koontz's 1987 novel *Watchers* and Jeff Vandermeer's 2017 novel *Borne*. Both novels depict biotech animal bodies that are marked or influenced by various human characters with one of two different categories of states of being – the "person" and the "monster". As a complimentary theoretical framework to ethics of care, I will briefly explain posthumanism to segue into my discussion of personhood. Moreover, this chapter considers the discourses surrounding personhood and monstrosity, examining how they are shaped by the specific external appearance/taxonomic classification of the body and what the body does or can do. These ideas, at the core, are rooted in mindsets aligned with anthropocentrism and speciesism. Subsequently, I also explore how the novels challenge these discourses, arguing that the authors expose their instability by offering moments where the "person" may act monstrous, or the "monster" may exhibit personable traits and emotions. In doing so, these texts highlight science fiction's capacity to offer to the discussion of identity-based discourses, showing how they are

easily influenced by markers of bodily difference and our attitudes towards those we have marked as "other."

Posthumanism

To further explore the relationships between humans, animals, and biotechnology, this chapter brings in posthumanism scholars such as Pramod Nayar, Cary Wolfe, Rosi Braidotti. Each of these theorists have contributed to posthumanist notions of hybrid concepts of identity, embodiment, and multi-species assemblages. Much like how Joan Tronto emphasizes interconnectivity and asserts that care is a "species activity", posthumanism is an idea that not only seeks to challenge traditional conceptions of the human, but also emphasizes the subjectivities of and relationships between many types of beings. Like care, posthumanism is a term "used to signify differing, even opposing perspectives" (DeFalco 18). For example, some posthumanists are dedicated to critiquing humanist[29] mindsets and others wish to enhance the human via advanced technological innovation/intervention (what we call transhumanists).

In his work *Posthumanism,* Nayar explains that critical posthumanism rejects anthropocentrism and the idea that humans have a right to control the natural world. He explains that posthumanism "calls attention to the ways in which the machine and the organic body and the human and other life forms are now more or less seamlessly articulated, mutually dependent and co-evolving" (19). Critical posthumanism also "critiques the humanist and transhumanist centrality of reason and rationality … and offers a more inclusive and therefore ethical

[29] Posthumanism is often seen as an opposing reaction to humanism. In a general scope, humanism is a philosophical belief that emphasizes the human being's agency and potential, both as an individual and as part of a society. Affirming a notion of human freedom and progress, humanism claims to support the equal dignity of all human beings. Humanism argues for the belief that the human possesses intrinsically moral and self-regulating powers that is unique to the human alone. These alleged powers mean that the human being is to be regarded as the center of moral concern.

understanding of life" (19). Furthermore, it addresses "the question of the human in the age of technological modification, hybridized life forms, new discoveries of sociality (and 'humanity') of animals and a new understanding of 'life' itself" (3). Critical posthumanism is an avenue for not only rethinking nonhuman life but also how technologies enable possibilities that are not limited to the human subject. This rethinking promotes attentiveness to how humans consistently define themselves "against the 'animal', the mutant/deformed/monstrous/machine" (Nayar 79). While there are many methods humans use to attempt this definition, one significant way is through the label of "person" and who it can be assigned to.

Personhood and Monster Studies

There are many questions worth addressing when considering the concept of personhood. What does personhood entail? What does it mean to consider personhood from a legal and philosophical standpoint? How do the fields of posthumanism and animal studies engage with the concept of personhood? In a general sense, personhood means the status of being a person, a term widely understood to mean an individual possessing certain capabilities, such as moral thought, reason, and self-awareness. A wide discussion in the field of animal sciences is whether animals possess any of these capabilities – even the ability to suffer. Some would push this definition of personhood further and argue that other criteria would include also having social relations or being a part of a community with legal responsibility. The topic of how we should define "a person" is a controversial one in the fields of both law and philosophy. Personhood is closely tied to legal and political concepts; one is a person if they are *legally* considered a person.

In many countries, animals are not legally considered persons. Including Canada, most nation-states "treat nature and its components mainly as objects to be owned. Animals, trees,

rivers, lakes, mountains, ecosystems and the planet are not legal persons with responsibilities and rights, but resources to be exploited for human enjoyment" ("Legal Recognition for Non-Human Relation"). While these entities are not granted recognition of legal personhood, humans and their human-centred legal constructs (corporations) are on the other side of "nature", granted the privilege of legal rights and responsibilities. While a corporation is a human creation that does have these privileges, a human creation aligning too closely to "nature" – for example, a genetically modified dog, since it is still a *dog* – does not have them. As Maneesha Deckha explains in her discussion of anthropocentric legal orders, "As property, animals occupy a commodified and objectified social status that only cherished and respected companion animals have any hope of transcending" (Deckha 85). In other words, animals are not socially seen as subjects, but there are also enough people who choose to see their companion animals as fellow members of the family, thus often allowing for less actions of commodification and objectification. Nonetheless, as she further adds, "All animals, though, occupy a position of legal invisibility due to their propertized status" (Deckha 85).

What would it mean, however, to philosophically consider the meaning of an animal as a "person"? Should we embrace personhood when it comes to the philosophical status of animals, or should we abandon or dismiss the concept/the term? At times, animal studies and posthumanism scholar Cary Wolfe seems to favour the latter. In *What is Posthumanism?*, Wolfe critiques animal studies scholars in many different disciplines for often still upholding an anthropocentric view. He questions the connotations of what these scholars argue: "Just because we direct our attention to the study of nonhuman animals, and even if we do so with the aim of exposing how they have been misunderstood and exploited, that does not mean that we are not continuing to be humanist" (Wolfe 99). Wolfe argues that in order to begin abandoning

anthropocentric thought, we need to rethink subjectivity, which would entail "a *disarticulation* of the question of 'persons' from the question of membership in the species *Homo sapiens*" (Wolfe 60). However, Wolfe also seems to suggest that it may not be enough for us to simply decide what we view as persons, because of the power language holds in shaping our "moral attitudes" (Wolfe 60). In other words, we are used to associating the terms person and personhood with humans. This sway that language holds over us cannot be set aside, for, as Wolfe asserts, we are always "radically other" in "our subjection to and constitution in the materiality and technicity of a language that is always on the scene before we are, as a precondition of our subjectivity" (119). Thus, while on one hand Wolfe suggests that we separate the term "person" from the term "humans", he also seems to acknowledge that this practice would not be easy. In comparison, Sherryl Vint, in her work *Biopolitical Futures*, certainly does not suggest that we abandon the term. Her work argues that "we need to reimagine personhood in posthuman terms as a way to form alliances and lifeways that offer decommodified futures" (2021, 7). This emphasis on decommodification is especially important considering how biotech animals are treated as such.

While personhood can mean something specific from a legal standpoint, from a philosophical standpoint it can almost become synonymous with other ideas and beliefs regarding how we should view animals – as *beings*. In my past work on *Borne* and what I called posthumanist empathy, my argument is not that we should abandon the term but approach it in a more species-inclusive way, suggesting that we approach personhood as not only the condition of being an individual (with thoughts and feelings), but also as a worthy potential recipient of empathy and compassion. Deckha's position on the Canadian Law also echoes these emotions: "Canadian Law should enforce care, empathy, and compassion toward animal bodies as legitimate values as well as legitimate guides for informing the resolution of legal disputes or the

creation of policy involving animals" (Deckha 117). While I still stand by this approach to personhood where we do not need to completely abandon the term, I am also interested in and welcome Deckha's concept of "beingness". Do we have to see animals as "persons" in order for us to feel that they are worthy of the type of privileges and equivalent forms of respect that we give to fellow humans? Furthermore, what can science fiction suggest on this matter?

Deckha argues that we do not need to use the term, at least from a legal standpoint, explaining that the law prescribes to a "binary outlook" where almost all entities are categorized either as property or as persons (Deckha 8). Instead, Deckha challenges the binary and proposes beingness: "Beingness is a status that is meant to provide, at a minimum, the legal recognition that personhood is meant to afford, but it would be a legal subjectivity that caters to the ontologies of breathing, embodied creatures" (Deckha 121). Deckha's theory here "bears neither the imprint of exploitative property nor the anthropocentrism of personhood" (Turnbull 542). A prioritization of embodied differences would entail a recognition and acceptance of the animal body, where their bodily experiences are valued and left unpunished for their possible cognitive differences compared to humans. To value and acknowledge an animal's bodily experience, the law would also have to consider how animals live their lives and the barriers and obstacles that challenge them and reveal their vulnerability. This legal acknowledgement of "beingness", then, would have to include a legal response to animal suffering.

Of course, throughout this chapter I am more interested in personhood in the philosophical sense than I am in the legal. My discussion of personhood will relate to how it is treated in Koontz's novel and Vandermeer's. Deckha's imagining of legal beingness closely aligns with my own perception of how we should view personhood. My argument throughout is not that the word (personhood) should be abandoned but complemented by the additional

prioritization of beingness. The two novels that I explore in this chapter will allow us to understand these concepts of individuality and embodied experiences that philosophical musings of personhood and beingness celebrate.

The monster, however, in the cultural imagination, is often excluded from inhabiting the category of "person". To some extent, it is also easier to place a being into the category of "monster" if they do not fit the standards for what qualifies as *human*. In monster studies, various cultural monsters such as vampires, werewolves, hybrids and chimeras and other mythic beasts are often the focus of examination. Nonetheless, monster studies as a field does not limit itself to the consideration of only these types of monsters. Jeffrey Jerome Cohen, in his often-cited work "Monster Culture (7 Theses)" describes the monster figure. Cohen argues that "The monster is continually linked to forbidden practices" (16). Once such "forbidden practice" can be the idea of "playing God" with life through biotechnological manipulation, as first alluded to in my brief discussion of *Frankenstein* in the Introduction. Cohen also insists that the monster "exists only to be read" (4): the monster exists to reveal and to warn. The monster also "always escapes", wreaking damage and havoc (4). This first became especially apparent in this project when I turned to Bakis' novel *Lives of the Monster Dogs*, considering the damage that ensues when the monster dogs escape.

Many of Cohen's arguments draw attention to the instability of categorizations. For example, he says that the monster "refuses easy categorization" (6) and is "difference made flesh, come to dwell among us" (7). Monsters can be seen as "disturbing hybrids whose externally incoherent bodies resist attempts to include them in any systematic structuration" (6). This categorical resistance alarms us because their suspension between forms threatens to dismantle binary distinctions. Cohen also explains that monsters "police the borders of the

possible" (12). This essentially means that monsters are used to warn people of what may happen if they go past certain cultural, scientific, or physical borders: as he states, "curiosity is more often punished than rewarded" (12). Cohen's final argument asserts that the monster "stands at the threshold of becoming" (20). In his concluding words, "These monsters ask us how we perceive the world, and how we have misrepresented what we have attempted to place. They ask us to reevaluate our cultural assumptions …, our perception of difference, our tolerance toward its expression. They ask us why we have created them" (20). The *why* behind the act of these creations is important in my discussion of the "monsters" that are biotech animals.

There are also compelling connections to be made between monster studies and animal studies. Nayar explores these commonalities in his work *Posthumanism*. He explains that critical posthumanism draws on monster studies and animal studies for a few reasons. One key reason is the mutual perception and label of "otherness". Monster studies looks at different forms of life and different bodies, such as "the disabled, the insane or the differently bodied", and at how they are placed into the category of "freaks" or something less than human (Nayar 111); this was touched on for example in the second chapter with the discussion of the bodies of the monster dogs. These dogs are, of course, "differently bodied" and we see Ludwig constantly feel like a "freak". As we can see then, the monstrous bodies here are also animal bodies, albeit technologically altered ones.

Similarly, the field of animal studies considers how the animal "is the constant other to the human" and how "it is the animal that enables the construction of the human as a category" (Nayar 111). For example, the ideal human is not expected to betray their "humanness"; they should keep any animalistic desires, tendencies, or instincts buried. Furthermore, Nayar draws our attention to the ways certain beings and life forms in our literary and cultural imagination are

"between categories", such as Frankenstein's monster, humans with animalistic/bestial features (Mr. Hyde from Robert Louis Stevenson's *The Strange Case of Dr. Jekyll and Mr. Hyde*), human-like creatures who exhibit animality in that they prey on human blood (Bram Stoker's *Dracula* and other depictions of vampires), undead former humans who have lost most of their brain function (zombies), or automata and androids with similar emotional responses as humans (the androids in Dick's *Do Androids Dream of Electric Sheep?*) (Nayar 114). These beings possess bodies that are either too distant from the accepted idea of a "normal" human, or they are uncanny and "too uncomfortably close", such as androids (Nayar 114). Whether or not a being belonging in either of these two categories is seen as animalistic, both categories are "equally monstrous in cultural representations of otherness" (Nayar 115).

Nayar also explains that normative values based on how we treat particular appearances behaviours, and blurry categories of being are often anthropocentric and result in a willful ignorance (at best) and/or a punishing oppression (at worst). Regarding the monster, it can be "constructed as such because of a certain normative value attached to particular physiognomies, skin colour, shapes and behaviour" (111). To connect this back to animal studies, this is similar to the mindset that the *human* form is the ideal form. What happens, then, when that form is not completely definitive? As Nayar explains, "monster studies, like animal studies, shows how cultures harbour certain anxieties about mixed and indeterminate forms of life and seek to invent categories into which these might be suitably (re)located" (112). In other words, it is not just the figurative monstrosity that is present in the exploitive creation of the biotech animal which leads people to want to view them as monsters – it is also the fact that they are "mixed", non-static, and in some ways, indeterminate. Thus, the anxieties they feel about this indeterminacy,

especially when confronting a body that is so unfamiliar to them, make it is easy for them to "suitably (re)locate" the biotech animal into the invented category of monster.

The two novels I focus on in this chapter depict biotech animal or animal-like characters who are seen, by other characters, as fully or partially monstrous, and who often express discomfort with the idea of being in this category. *Watchers* is written by Dean Koontz, a popular author who is commonly associated with writing horror and thriller/suspense novels. Indeed, while *Watchers* is often only categorised as a horror and/or a suspense novel, the novel is undeniably a work of science fiction as well. The novel follows two advanced genetically engineered animals and the corrupt scientists and corporations who created them. *Watchers* shares important similarities with Jeff Vandermeer's novel *Borne*, this chapter's second focus. I am especially interested in how both novels present characters that are treated differently based on contrasting discourses. On one hand, we have a discourse that allows for sympathy and kind treatment (driven by ideas of personhood), and on the other hand we have a discourse that permits paralyzing disgust and/or violent treatment (driven by ideas of monstrosity). This chapter explores the ways in which the biotech animals are framed as either persons or monsters, pondering important questions regarding personhood and monstrosity and how they can relate to care approaches and posthumanist conceptions of subjectivity. One of these questions is especially important: what is to be done when the way humans treat these biotech creations begins to influence how the creations see *themselves*? It is perhaps easy for us to not even consider this question because our real-world biotech animals do not communicate in human language, and thus cannot easily reveal to us any discomfort they may feel about their identity. Nonetheless, I would argue that these texts want the readers to recognize the possibility of biotech animal self-awareness and how human actions influence them. Furthermore, I will

explore the feelings of repulsion *and* compassion that some human characters eventually feel for the "antagonist" biotech animals, and the significance of these emotions. Likewise, I will also look at how the human characters' motivations to care for the biotech animal and see them as a person is often influenced by modes of communication *outside* of verbal human language, and what these other forms of communication reveal.

Dean Koontz's *Watchers*

On a basic level, Koontz's novel follows a familiar narrative we all know and typically understand: a man's love for his dog. Yet, the novel is not that simple or straightforward. *Watchers* follows and opens with protagonist Travis Cornell. While hiking by a canyon near his home in Southern California, Travis runs into two animals: a golden retriever dog and the then unknown, mysterious creature who is chasing the dog. When Travis saves the dog from the mysterious creature, the dog forms an attachment to him. Travis decides that he cannot leave the dog and brings it home with him. On discovering that the dog possesses an unusual level of intelligence for a dog, Travis names him Einstein. At this moment, Travis is unaware that these animals are genetically engineered and have escaped from a top-secret government laboratory. The mysterious creature is known by his creators as The Outsider. Later in the novel, Travis and Einstein eventually meet a woman named Nora, who goes on to become Travis's wife. Eventually, Einstein and The Outsider's origins are revealed to Travis and Nora. The rest of the novel sees Travis, Nora, and Einstein on the run from many figures, most notably The Outsider (who wants to kill Einstein) and federal agents who are on the hunt for these laboratory escapees. Time is also devoted to Lemuel (Lem) Johnson, a member of the National Security Agency who is duty-bound to capture the escaped Outsider and prevent anyone from spreading knowledge of

his existence, and his old friend Walt Gaines, a sheriff who is trying to uncover and catch whoever is killing people and animals in his jurisdiction.

As demonstrated with many of the texts explored in this dissertation so far, the engineering of a biotech animal typically fulfils a human-centred use-value. Before readers learn why Einstein and The Outsider were created, Walt suspects that Lem knows more than he is sharing and tries to press him for further details on the possibility of a genetically engineered animal on the loose. Lem, however, tries to deflect: "Okay, just supposing they [the government] could make a weird new animal by fiddling with the genetic structure of an existing species—what *use* would there be for it? I mean, aside from exhibition in a carnival freak show?" (Koontz 143). With this question, Lem immediately then sets the scene to prepare the readers to realize that the animals were created to be tools of some sort. With this following statement, mentioning a "carnival freak show", readers are quickly drawn into the discourse that "weird new animal[s]" engineered by technology are "monsters", and their bodies should reasonably be either directly used or put on display for human profit.

Much like what we see in Chapter 2 with the discussion of *Lives of the Monster Dogs* and *We3*, Einstein and The Outsider were created, essentially, for military purposes. Lem explains to Walt that genetic engineering experiments on dogs were recently going on at a US government-sponsored research agency called Banodyne Laboratories, for the purpose of "defence-related research" (Koontz 178). Banodyne sponsors the Francis Project, a term recently assigned to the project focusing on making human-animal communication possible by elevating animal intelligence. At first, the project was solely concerned with experimenting on golden retriever sperm and ova to create a golden retriever with enough level of human intelligence to successfully spy on the Russians. Dr. Weatherby was assigned this task. After many failures

Banodyne is finally successful, creating the dog who Travis goes on to name Einstein. Einstein is created with the ability to engage in elaborate sign language. When Walt asks Lem why the Pentagon wanted to create a dog that still looked like a dog but could think like a human, Lem explains the U.S Department of Defence's vision: "Imagine the possibilities for espionage … In times of war, dogs would have no trouble getting deep into enemy territory, scouting installations and troop strength. Intelligent dogs, with whom we could somehow communicate, would then return and tell us what they had seen and what they'd overheard the enemy talking about" (Koontz 180). He then further paints a hypothetical image for Walt, asking him to imagine it is peacetime and to imagine "the president of the United States presenting the Soviet premier with a one-year-old golden retriever as a gift from the American people" and to imagine "the dog living in the premier's home and office, privy to the most secret talks of the USSR's highest Party officials. Once in a while, every few weeks or months, the dog might manage to slip out at night, to meet with a U.S. agent in Moscow and be debriefed" (180). Unsurprisingly, it is never framed in this explanation that Einstein would have a better life if he had human-level intelligence, rather that the United States would have an advantage over the Soviet Union.

Koontz also draws our attention to the creators' lack of care with Banodyne's refusal to give Einstein a name. Lem believes to do so would be unwise and impractical: "Most scientists who work with lab animals never name them. If you've named an animal, you'll inevitably begin to attribute a personality to it, and then your relationship to it will change, and you'll no longer be as objective in your observations as you have to be. So the dog had only a number" (Koontz 184). We see assigning of numbers in *We3* as well, with Bandit, Tinker and Pirate assigned ones (#1, #2, and #3), after they are stolen from their homes and uplifted/cyborg-ized by the military. However, what is not explicitly said in both texts but *can* be gathered in Lem's explanation is

that if one to were to "attribute a personality" to the animal and risk their ability to be "objective in [their] observations", then one would be trying to treat the animal as a subject and less as an object. The military cannot allow themselves to see the animal as a subject, because this would force them to confront the ethics in creating these animals to serve as easily disposable tools. Thus, seeing the animal, in this case, as less of a subject means ignoring the possibility for them to have a personality separated from their duty of serving and obeying their human masters.

Later, Banodyne assigns Dr. Yarbeck to the task of creating a hybrid baboon-like creature designed to be a lone killer. It is this creature they later go on to call the Outsider[30]. Lem explains that the purpose behind the Outsider was to "create an animal with dramatically increased intelligence—but one also designed to accompany men into war as police dogs accompanied cops in dangerous urban neighbourhoods" and that Dr. Yarbeck wanted her creation to be "smart but also deadly, a terror on the battlefield— ferocious, stealthy, cunning, and intelligent enough to be effective in both jungle and urban warfare" (Koontz 184). Much like Einstein, The Outsider cannot speak but can engage in complex sign language. Dr. Yarbeck created The Outsider by first engineering a breed of baboon that would grow to a greater size, and then editing the baboon's own genetic material, often by introducing genes from other species. Unlike Dr. Weatherby who had to create a dog with the intelligence of a human but still looked like a dog, Dr. Yarbeck was not bound by the limitation of creating an intelligent animal that still accurately represented the appearance of its species. In other words, Dr. Yarbeck was free to make the animal look *monstrous*. Lem admits that Dr. Yarbeck thought this freedom was probably for the best: "Yarbeck figured that if her creation was hideous, if it was alien, it would be an even more

[30] Throughout the novel, the Outsider is consistently referred to as an "it", void of gendered pronouns, an act that essentially further establishes it as a "monster."

effective warrior because it would serve not only to stalk and kill our enemies but terrorize them" (Koontz 185). Unlike Einstein, who had to still look like a pleasant and welcoming golden retriever for the purpose of emotionally manipulating humans with the familiar look of a dog breed that is often associated with friendliness, The Outsider's body is manipulated not only to have the strength and brute force to cause physical violence, but to also be so grotesque as to cause a sort of psychological violence in the human who looks at him. To "terrorize them" means to instill or reawaken in them a fear of monsters.

Comparisons of Einstein and The Outsider's origins reveal the Good Dog/Bad Dog mindset, where we see one as benevolent and harmless and the other as harmful, unpredictable, and deadly. While both creatures are intelligent, Lem clarifies that Banodyne could not allow The Outsider to be *too* intelligent: "It would be sheer madness to create a killing machine as intelligent as the people who would have to use and control it. Everyone had read *Frankenstein* or had seen one of the old Karloff movies, and no one underestimated the dangers inherent in Yarbeck's research" (Koontz 184). The irony in this statement and in alluding to *Frankenstein* is that while the creators certainly are aware of the potential dangers of creating The Outsider, this does not deter them from going ahead with it. While Lem tries to justify it by saying that they aptly chose not to make The Outsider too intelligent, he fails to acknowledge the already existing unpredictability that comes with creating any sort of new life form to begin with. Lem fails to acknowledge The Outsider's potential ability to continue to learn throughout its life.

While there are not many characters in the novel who openly condemn the act of bioengineering animals, it is important here to consider the statements of the ones who do. The character who is most blunt with his open condemnation of such a practice is Garrison, Nora's lawyer. Later in the novel, Garrison supports Travis and Nora's decision to evade the

government officials who are chasing them down to try and capture Einstein. He assures Nora and Travis that they are doing the morally right thing by trying to protect Einstein: "I do believe you have an obligation to help keep Einstein free … mankind has no right to employ its genius in the creation of another intelligent species, then treat it like property. If we've come so far that we can create as God creates, then we have to learn to act with the justice and mercy of God. In this case, justice and mercy require that Einstein remain free" (Koontz 250). At this point in the narrative, the novel directly asserts that if a creator is going to go ahead and create, then the creator must take responsibility for their creation in an attentive, caring way. To treat the creation solely as an imprisoned piece of property, without justice or mercy, would be going against this ethical obligation that humanity must attend to.

Walt also argues against the creation of Einstein and The Outsider. His statement is briefer than Garrison's, but similar in tone: "Didn't Yarbeck or anyone else consider the immorality of this, for Christ's sake? Didn't any of them ever read *The Island of Doctor Moreau*?" (Koontz 186). Much like what we saw with the allusion to *Frankenstein* earlier, we once again have a man in a job of high authority referring to an influential science fiction work looking at representations of animals/animality and biotechnology. I would argue that these examples demonstrate the ability for literary texts to be in conversation with each other, and how science fiction has, and continues to, care about suggesting ways for us to consider the ethics surrounding animals and technology. As we can recall, H.G. Wells's Dr. Moreau performs painful, cruel experiments on animals to try and make them act and appear human-like. Later in the novella, many of the uplifted animals rebel against Dr. Moreau, resulting in violence and death. By alluding to this novella, Walt is suggesting two thoughts: first, he is suggesting that it is unacceptable to create animals and then cause animal suffering, and second, he is suggesting

that the government should know better than to create such an animal because they should be aware of the possible consequences. In response to Walt, Lem, seemingly misinterpreting what Walt is implying, insists that there is no such thing as immoral knowledge: "Actions can be either moral or immoral, yes, but knowledge can't be labelled that way. To a scientist, to *any* educated man or woman, all knowledge is morally neutral" (186). Walt, however, does not accept Lem's excuse, insisting that "*application* of the knowledge, in Yarbeck's case, wasn't morally neutral" (186). In other words, there is nothing "morally neutral" about creating a hybrid creature that is meant to be a killing machine. As I will later discuss, this application is not only morally harmful to the safety of other people, but it also becomes harmful to The Outsider himself – both physically and mentally.

Before exploring the depiction and treatment of The Outsider, I would first like to concentrate on Einstein. While a large focus of the novel is the relationship between Einstein and Travis (and later Nora) and the bond that they share, it makes more sense to first, briefly, consider the attitude towards him held by someone who does not have such a bond. Lem stands as a contrast to Travis in this respect; while Travis willingly takes on the role of Einstein's caregiver and protector, Lem is a person of the law who thinks and acts objectively. In his discussion with Walt, Lem offers Einstein praise: "The dog is harmless, affectionate, a *wonderful* animal. I was in Weatherby's lab while he was working with the retriever. In a limited way, I communicated with it. … Walt, when you see that animal in action, see what Weatherby created, it gives you enormous hope for this sorry species of ours" (Koontz 181). Of course, what is ironic about this response is that it is not so much Einstein himself being praised, but the ability of humans. The most Lem can say about Einstein is that he is harmless and affectionate, words that, while complimentary, are rather broad and not striving to know the individual animal.

Instead of appreciating Einstein for who he is, Lem appreciates Einstein for what he reveals about Lem's own species. He continues his praise toward human ability: "... if we can bring such a wonder into the world … we have the power and, potentially, the wisdom of God. We're not only makers of weapons, but makers of life. … By pulling the dog to a new level of awareness, we are inevitably raising our own awareness as well" (Koontz 182). Lem sees Einstein less as an individual, but as a success story for the intellectual advancements of the human species. Placing anything on a pedestal can, of course, lead to unrealistic standards for the one that is held up, but this also allows Lem to use this success story as motivation to *keep* creating, showing little attention to the consequences of further pursuits. What is ironic as well about Lem's statement is that when he states that human scientists are "raising [their] own awareness", what he means by this is that they are increasing their knowledge about how to create life; yet, by uplifting the dog – especially for the self-centered human agendas – they seem to be willingly decreasing their awareness of the complexity of animal lives and emotions.

In contrast, Travis, while also motivated by the curiosity he feels towards Einstein, quickly begins to care about Einstein's well-being. When he first meets Einstein and realizes that he is wandering around without an owner, he tells him (while of course not expecting a response) that he cannot take him with him: "Don't believe I can take care of you. Too much responsibility, fella" (Koontz 18). The dog, regardless, then finds his way into Travis's car's passenger seat. Travis tries to find him a snack, thinking he may be hungry. When Travis realizes that the dog may be understanding the words he says, a newfound curiosity arises: "Can't turn you loose now or take you to a pound. … If I didn't keep you, I'd die of curiosity, wondering about you" (Koontz 20). It is quite clear at this point that Travis's sudden curiosity about the dog is because of his unusual displays of what humans would call intelligence.

Nonetheless, Donna Haraway, in discussing her relationship with many different species of dogs, highlights the importance of curiosity when it comes to the act of caring: "Caring means becoming subject to the unsettling obligation of curiosity, which requires knowing more at the end of the day than at the beginning" (*When Species Meet* 36). Travis, certainly, is unsettled by the dog's unusual displays of intelligence, and perhaps that curiosity would not have arisen without this observation. Yet, this feeling of unsettlement leads to curiosity, which, as we will see, can then lend itself to acts of care.

On one hand, it may seem anthropocentric to only feel a sense of curiosity towards an animal if they seem to display an intelligence that is not typical of their species. The novel itself suggests that it is aware of this when we see Travis also seeming to recognize this human-centered inclination; he later wonders how much the dog "really perceive[s]" and "how many of his reactions [is he] imagining because of pure wishful thinking?" (Koontz 168). His thoughts about Einstein are framed throughout the story with concerns about anthropomorphism, such as when "People have a natural tendency to anthropomorphize their pets, to ascribe human perceptions and intentions to the animals where none exist" (Koontz 168). Regarding Einstein's case, "there really was an exceptional intelligence at work, the temptation to see profound meaning in every meaningless doggy twitch was even greater than usual" (Koontz 168). The anthropocentrism in prioritizing intelligence in other species is conditioned by the idea that humans can often see intelligence only as *human* intelligence, and not something that can mean something different for unique species. Yet, on the other hand, Travis's curiosity towards the dog because of his intelligence serves as a starting point for what will end up being a more meaningful relationship.

Before taking Einstein home with him, Travis addresses him directly in human language, an act that is not much different from many people who talk to their companion animals. He tells Einstein, while "feeling not at all foolish for speaking so directly and sincerely to a mere dog" that he will "never mistreat him", and then appeals to his sense of "dog-ness": "You must know that I won't. I mean, you have good instincts about things like that, don't you? Rely on your instincts, boy, and trust me" (Koontz 36). Travis's comment on the dog having "good instincts" is not a comment on the dog's hyper-intelligence, but on a trait most people associate with dogs: the ability to recognize human emotions and understand the dynamics between people. Many people believe that a dog's instincts can let them know if someone has good intentions or means harm towards them. At this moment, Travis is recognizing the dog not as a hyper-intelligent dog (or as a quasi-human), but as a *dog*.

In fact, as his relationship with Einstein continues, he acknowledges the importance of remembering that Einstein, while hyper-intelligent, is still a dog. At first, Travis especially fixates on Einstein's intelligence, and tries to test him on the limits of his scope of understanding. For example, earlier in the novel Travis and Nora show Einstein pictures of many different objects in hopes that Einstein will see something that excites him. The point of this task is for Travis and Nora to try and guess Einstein's origins, to help them "understand where [he] came from and how [he] got to be what [he is]" (Koontz 168). Eventually, this task proves successful, combined with their instruction that he bark once for questions that can be answered with "No", and wags his tail for questions that can be answered with "Yes." Through this method, they not only learn that Einstein is a lab dog, but that he can understand what they are saying to him. With this knowledge, Travis becomes especially concerned with preserving Einstein's intelligence.

In a later scene, Travis and Nora take Einstein to a veterinarian when he starts to show signs of canine distemper.[31] Einstein's condition never transitions from first-stage distemper into second-stage distemper, and he survives with no lasting effects. However, before this revelation, Dr. Keene (the veterinarian) explains to them that dogs who survive second-stage distemper often end up having some sort of brain damage, insisting though that Einstein could still "be relatively happy with that, lead a pain-free existence, and he could still be a fine pet" (Koontz 323). Travis, frustrated, replies, "To hell with whether he'd make a fine pet or not. I'm not concerned about physical effects of the brain damage. What about his mind?" (Koontz 323). When Dr. Keene elaborates that he would still "recognize his masters" but likely remain housebroken, a shaking Travis says, "I don't give a damn if he pisses all over the house as long as he can still think!" (Koontz 323). At this point, Keene is perplexed: "Well . . . what do you mean exactly? He is a dog, after all" (Koontz 323).

While Keene does not realise that he is a hyper-intelligent dog, Travis, in this moment, does not seem to remember that Einstein is still a *dog*, even without his hyper-intelligence. He is still an animal that people choose as a companion animal because they want a "fine pet". In his discussion of companion animals, Nayar outlines the ways in which humans can often forget the animal-ness of their companion animal, explaining that while the pet cannot speak, it is also "an ideal human" because "it says what we want it to say" (*Posthumanism* 33) and, quoting Erica Fudge's words from her work *Animal*, "It is only when the pet displays its animal nature – when it pees on the carpet, brings in a half-dead sparrow, destroys the furniture – that we lose the tranquillity of the relation. Then, and only then, do we really confront the existence of something

[31] Canine distemper is a contagious disease caused by a virus that attacks the respiratory and nervous systems of dogs.

beyond our control in our home" (Fudge 2002, 33). These animalistic displays are what people who own ordinary (non-biotech) companion animals may have to worry about at some point. Travis, however, does not have a regular companion animal; the "ideal human" is even more noticeable in Einstein because he can understand human language and communicate back. For Travis, then, Einstein displaying "its animal nature" does not necessarily simply mean showing the bodily, animalistic acts of peeing or destroying; it instead means lacking what every other dog lacks – a hyper-intelligence for comprehending human language. At this moment, Travis prioritizes the dog's intelligence over his hypothetical capability to still live a happy, pain-free life.

Yet, there are also key moments when Travis is humbled when he remembers Einstein's status as a dog, separate from the hyper-intelligence. At one point in the novel, Travis and Nora bring Einstein with them on their road trip to Las Vegas to elope. They station themselves at an RV campground and allow Einstein to play with the neighbouring camper's dog. Travis is in awe watching the dogs play with each other, as they "ma[ke] a game of trying to get the ball away from each other and then holding onto it as long as possible" (Koontz 231). He also reflects on how "Einstein was undoubtedly the smartest dog in the world, the smartest dog of all time, a phenomenon, a miracle, as perceptive as any man—but he was also a dog. Sometimes, [he] forgot this fact, but he was charmed every time Einstein did something to remind him" (Koontz 231). In this case, Travis feeling "charmed" can be interpreted as him feeling pleasantly surprised, impressed, or having general feelings of admiration toward Einstein's dog-ness.

Travis's acknowledgement here where he forgets that Einstein is still a dog, but not feeling repulsed or nonchalant by this reminder, is just one step towards strengthening his ethically posthumanist mindset and caring treatment towards him. In the latter half of the novel,

language and labels become a more direct way for Travis and Nora to demonstrate their care towards Einstein's personal feelings. For example, in a scene where they are trying to prove to Dr. Keene that Einstein possesses intelligence for a dog beyond the average level, they have him answer some questions with Scrabble tiles. Nora asks Einstein, "who is your Master? Tell us his name" (Koontz 339). Einstein, looking at both her and Travis, "make[s] a considered reply" and he chooses specific Scrabble tiles by moving them with his nose to spell out the response "NO MASTER. FRIENDS" (Koontz 339). We can recall this discussion of human mastery when it comes to animals (both engineered and non-engineered) in my earlier analysis of *Lives of the Monster Dogs* and *We3*. In Bakis's novel, Ludwig is especially concerned with being his own master. However, as the novel progresses, he also cares about his friendship with Cleo, one where he hopes won't be shaped by master-servant relations. In *We3*, the homeless man insists to Bandit (the dog) that he is not his master, a statement that tries to deprioritize hierarchal speciesist dynamics from his relationship with him. Here, Einstein, since he has the language ability, makes it abundantly clear that he does not want a hierarchical relationship with Travis or Nora and instead sees them as friends, a term that typically refers to a bond of mutual affection and admiration. Of course, as Erica Fudge explains in *Pets*, having an affectionate relationship with a companion animal will always come with some form of domination (Fudge 21-84). As we have previously explored, a human cannot go without demonstrating domination – or mastery, if you will – when making decisions without the animal's consent, but that will ultimately benefit both parties, such as training them where to pee, or taking them to the veterinarian when they are ill. What the novel is suggesting here though is that it is not the case then that to have a friendship or an affectionate relationship with an animal, there cannot be any traces of domination. Rather, to respect such a relationship, mastery should not be an essential or large

part of it, thus why Einstein wants to focus on his *friendship* with Travis and Nora instead of a master-servant one.

Koontz continues, then, to depict Travis as a human who is willing to accommodate with this companion animal, rather than solely react in domineering ways. Travis is delighted with Einstein's response calling for friendship rather than mastery: "By God, I'll settle for that! No one can be his master, but anyone should be damned proud to be his friend" (339). While one could question his choice of words when he says he will "settle" for Einstein's response, I would argue it is wiser to focus on the pride he insists anyone should feel. One may easily call their companion (someone whom one spends a lot of time with) a friend, and one may call their friend a companion. While of course not all friends are companions, Einstein is certainly Travis and Nora's companion since he is always at their side. Fudge focuses on this important link between companionship and friendship: "'Companion animal', the new term [instead of 'pet'], emphasizes mutuality. Pets are no longer at our feet; they are by our side. And 'companion animal' is not anthropomorphic … It is a term that, it could be argued, refuses the possibility of anthropomorphism in that it states up front that some animals are (not are like, but actually are) our friends" (Fudge 88). While "pet" is a term that can be used to demean (especially when referring to humans), Travis's warm and open acceptance that Einstein is their friend demonstrates him refusing to demean and taking care to listen to his wants and respond with a mutual sense of affection.

While the term "companion" already includes the word "animal", the term "friend" usually does not. The Oxford English Dictionary defines friend by using the word "person": "A person with whom one has developed a close and informal relationship of mutual trust and intimacy" (OED). The irony here is that while many people will consider their companion

animal their friend, there is still much debate about using the word friend to describe a companion animal. Yet, Nora and Travis agree that Einstein is not only a friend but a *person* as well. In one scene, Einstein admits that he is afraid of being captured by the people who created him. At this point, Travis, Nora, and Dr. Keene have discovered a tattoo branding on Einstein's ear, which was put there so the people at the lab can distinguish him as *the* golden retriever they created. Dr. Keene is discussing with Travis and Nora the possibility of tattoo removal. Einstein uses his Scrabble tiles to write "DON'T WANT TO BE BRANDED. AM NOT A COW" (Koontz 347). How are we to interpret this statement? I would argue that the point is not to distinguish cows as inferior to Einstein, or to imply that Einstein thinks cows should be branded. Being aware of cultural and societal norms does not equate to condoning them. Einstein's response demonstrates an observational fact rather than a hierarchical judgement. Nora comes to a realization: "He wanted the mark removed in order to escape identification by the people at the lab. But evidently he also hated carrying those three numbers in his ear because they marked him as mere property" (Koontz 347). Thus, Einstein's statement allows Nora to understand his fear.

And so, instead of recognizing Einstein as property, Nora concludes that she should see him as a common legal distinction to property – a person. She addresses Einstein, telling him that he is "a person, and a person with … a soul" (Koontz 347). The distinction of "soul" complicates the matter slightly by bringing theological concepts into the matter. Nora reflects that it is not blasphemous to see Einstein as having a soul: "Man had made the dog; however, if there was a God, He obviously approved of Einstein—not least of all because Einstein's ability to differentiate right from wrong, his ability to love, his courage, and his selflessness made him closer to the image of God than were many human beings who walked the earth" (Koontz 347). This statement implies that God would only approve of Einstein because of his heightened

abilities, which certainly edges close to anthropocentric prioritizations. Similarly, Dr. Keene at first seems to completely approve of animal experimentation, but as Stephen W. Smith points out, "It is only because he is shown Einstein's abilities that he changes his mind. What we can take from these discussions amongst the characters is that Koontz believes (and wants us to believe) that Einstein matters deeply" (Smith 48). While it may not sit well with us that Einstein may only "matter deeply" because of his heightened abilities, at the same time, it would be foolish to completely ignore Einstein's heightened abilities. There is still a lot that humans do not know about animals, especially when it comes to the inner workings of their minds. However, no one could argue that Einstein, this engineered animal, does not want to be treated as more like a person and less like a property when he *directly states* that he does not want to be branded. Nora recognizes a need to honour his want: "The number in your ear is an insult, and we'll get rid of it" (Koontz 347). In a later scene, Dr. Keene also refuses to treat Einstein as property: "To hell with the small minds who'd keep a creature like that locked up to be poked and prodded and studied. They might've had the genius to make Einstein, but they don't understand the meaning of what they themselves have done. They don't understand the greatness of it, because if they did they wouldn't want to cage him" (Koontz 323). Rather than caging him and treating him like an object or prisoner, the appropriate response should be wanting to get to know him in a respectful, non-violent way.

In contrast to Einstein's depiction and treatment, the discourse surrounding The Outsider easily depicts him as a monstrous figure. Walt asks Lem why they call the creature The Outsider. Lem explains that Einstein was the "first breakthrough" of the lab subjects to "display unusual intelligence," and The Outsider, originally just called "The Other", was the second (Koontz 187). They eventually changed its name to The Outsider: "It was not an improvement on one of God's

creations, as was the dog; it was entirely *outside* of creation, a thing apart. An abomination—though no one actually said as much" (Koontz 187). While allegedly "no one actually said as much," Lem's labelling of it as an abomination suggests that everyone *saw* it as such, even if it was left unsaid. Yet, it *is* said, or implied, to the reader; this immediate label sets the reader up to see it, at first, as a monster.

A key trait used to describe The Outsider is that he is dangerous. Lem describes him as "aggressive as hell" (because he was designed to be) and carrying "a special hatred for its makers" (Koontz 189). At this point in the novel and in this dissertation, this hatred that a manufactured being may feel for their creator should come as no surprise. We can recall the hatred the monster dogs felt for their human creators in Bakis' novel, which also recalls the hatred Frankenstein's monster felt for him. Much like in those novels, the Outsider's hatred results in widespread violence. The reader learns that Outsider has escaped from the lab, and while it is especially hunting Einstein, it is also slaughtering other animals, thus manifesting its hatred further by taking its anger out on others.

There are moments, however, where some characters do feel pity for The Outsider. Even Lem, for example, has moments where he sees The Outsider and feels sadness for the harsh reality of The Outsider's situation. Lem recalls when he was once watching Dr. Yarbeck teach "the man-made monstrosity" a complicated series of hand signals, and The Outsider had "expressed a fierce hostility toward everyone and everything, frequently interrupting its dialogue with Yarbeck to dash around its cage in uncontrolled rage, banging on the iron bars, screeching furiously" (Koontz 198). Lem recalls the scene being "frightening and repellent" but that he also was "filled with a terrible sadness and pity at the plight of The Outsider" at the realization that The Outsider "would always be caged, always a freak, alone in the world" (Koontz 198).

Watching this moment play out between Dr. Yarbeck and The Outsider "affected him so deeply" that he remembers a "pertinent part of that eerie conversation" (Koontz 198) – a part that makes it immediately clear that The Outsider's self-image and identity is tainted by his awareness that everyone sees him as a monster.

Lem knows that The Outsider's self-awareness coordinates with how everyone else sees it. He insists that "the thing was aware of its status as an outsider, acutely aware" (Koontz 187). The "pertinent part" of the sign language conversation between Dr. Yarbeck and The Outsider is a heart-breaking exchange where The Outsider and Dr. Yarbeck talk about tearing out eyes. At first, The Outsider signs that he wants to "*Tear out everyone's eyes*" so they cannot see him, explaining that he is "*Ugly*" … "*Much ugly"* (Koontz 198). When Yarbeck asks him "*Where did you get the idea you're ugly*?" he responds, "*Everyone who see me first time. … All think me ugly. Hate me*" (198). Yarbeck tries to press further for more explanation: "*No one's ever told you that you're ugly. How do you know that's what they think*?" (198). The Outsider insists "*I know, I know, I know!*" while "rac[ing] around its cage, rattling the bars, shrieking" (198). He turns back to Yarbeck and signs "*Tear out my own eyes … So won't have to look at people looking at me*" (198). Even though Yarbeck claims that no one has ever told The Outsider that it is ugly or that they hate it, The Outsider clearly has enough emotional intelligence to intuitively sense how others perceive it. This scene is also important to our understanding of The Outsider and monstrous figures because it is the first moment in the novel where the reader receives some sort of access to The Outsider's own voice and feelings. At this moment, the reader is asked to think about The Outsider's inner anguish. The fact that it cannot bear to see others look at it with an unspoken hatred or disgust indicates how badly its self-worth is affected by the treatment he receives from others – and that it *has* self-worth. It is reasonable here to blame the reckless

creation process and the careless choices of the creators to make it appear so grotesque for The Outsider's inner anguish. This scene allows us to relate to Lem when he reflects on this conversation: "Lem felt sick at heart as he considered the lonely, tortured, self-hating, inhuman yet self-aware creature that Yarbeck had brought into the world" (Koontz 213).

Koontz also attempts to evoke the reader's compassion for The Outsider because of its awareness that Einstein is the more respected of the two creations. In earlier parts of the novel, the reader learns that Einstein and The Outsider had possessed "an uncanny instinctual awareness" of each other, such as their moods and activities, even when not in the same room. The Outsider, aware that it is "every bit as hideous, wrong, and evil" as the dog is "wonderful, right, and good" grows to passionately resent and hate the dog (Koontz 144). Walt expresses his shock that no one was able to understand why The Outsider carries this intense hatred: "The dog is the beloved child, the favored child, and The Outsider has always known that. The dog is the child that the parents want to brag about, while The Outsider is the child they would prefer to keep locked securely in a cellar, and so it resents the dog, stews in resentment every minute of every day" (Koontz 199). While one may argue that this explanation simply applies anthropomorphic thinking, it is important to consider what this anthropomorphic language is doing, and its potential to cultivate understanding. This metaphor of the beloved child and the unwanted child not only causes the reader to think of these animals as persons, but this specific example of jealousy towards a "sibling" is a moment that Koontz would expect many people being able to empathize with. At this moment, we are asked to feel empathy not only for the golden retriever, but even this monstrous figure who evidently has been conditioned by his oppressors to have a low self-worth.

From a care ethics standpoint, recognizing feelings of loneliness or low self-worth in others – especially a being that you are responsible for – should provoke actions of responsiveness, tending to the issues at hand to make their life more comfortable. Furthermore, there are other actions and emotions that The Outsider displays throughout the novel that hint at "humanity," either in the sense of benevolence and mercy, or traits and thoughts that we typically associate with being human. For example, the novel seems to imply that there was once a bond between The Outsider and Einstein, one not tainted by competition or a dichotomy of good versus bad: a shared love for Mickey Mouse cartoons. At Banodyne, scientists conducted experiments to determine the depth of Einstein and The Outsider's intelligence. One of these experiments, conducted by showing them a videotape with different film clips, tested them on being able to differentiate between fantasy and reality. Even though the dog and The Outsider did indeed gradually learn to identify fantasy from reality, the fantasy that they "clung to the longest" and were "enthralled" by was Mickey Mouse cartoons (Koontz 213). In a later scene, Lem accompanies a deputy as they discover The Outsider's cave lair in the wild. An item they find there is a Mickey Mouse coin bank. Lem considers how The Outsider's love for Mickey Mouse cartoons influences this moment: "After escaping Banodyne, The Outsider had somehow come across this coin bank and had wanted it badly because the poor damn thing was reminded of the only real pleasure it had ever known while in the lab" (Koontz 213). It is more likely that this "only real pleasure" is not just what The Outsider had ever known while in the lab, but in all its life.

In the last quarter of the novel, in a scene where The Outsider almost kills Einstein, it sees the image of Mickey Mouse. The Outsider has successfully tracked Einstein, making its way into the family home. Later, Travis retrospectively wonders why The Outsider seemed to be

taking its time, as if in hesitation, with trying to kill Einstein: “After all, with a flick of those talons, it could have gutted him” (Koontz 385). Instead, The Outsider had thrown Einstein against a wall. Before this moment, The Outsider had noticed a Mickey Mouse VHS tape lying on the floor. With his one-word response, “‘Mickey”, The Outsider’s voice had been “wretched and strange and barely intelligible”, but it had also “somehow conveyed a sense of terrible loss and loneliness” (Koontz 377). The Outsider had then dropped the tape and clutched itself, rocking back and forth in distress. As it repeated to itself “Kill dog, kill dog, kill dog,” Travis noticed that “this time it seemed racked with grief, as if it grasped the magnitude of the crime that it had been genetically compelled to commit” (Koontz 378). Mickey Mouse is a cultural symbol for the Disney franchise, but it can also be a symbol for childhood, which is often associated with innocence. In this moment, The Outsider is overcome with grief and despair, wanting to cling onto the childlike innocence and fascination that bonded him with the dog while in the lab, but ultimately feeling unable to let go of the intense anguish it feels over the dog’s special treatment while it was treated like a monster.

In its last moment of defeat, it had looked at the image of Mickey Mouse, and pleaded to Travis: “Kill me” (378). Marking its final moment of life, Travis delivers on this request and shoots The Outsider. Smith almost sees Travis’s decision to shoot The Outsider as an act of care: “... one can see Travis’ decision to shoot and kill The Outsider as a fulfilment of its wishes as it asks to be killed. … The Outsider might be owed different treatment to Einstein, but none of the characters appear to think he does not matter at all” (Smith 48). While it may be true that Travis’s act does fulfil The Outsider’s wish, there is not enough evidence in this scene to suggest that Travis decided to shoot him because he felt empathy or a strong feeling of mercy toward The Outsider. Rather, the novel seems to suggest that he thinks the opposite, since Travis thinks

to himself that "Its eyes were too alien ever to inspire empathy" (Koontz 377). It may be misguided then to assume that Tom thinks The Outsider "matters." This act of murder is an attempt at protecting humanity, exemplified here in Travis, Nora, and the genetically engineered dog that they have decided possesses enough humanity. In Nayar's words, "Humanity survives by constructing modes of exclusion, and the monster's ontological liminality enables domination, persecution, incarceration/containment, exhibition/display, genocide, displacement and elimination of certain forms of life" (*Posthumanism* 116).

From feelings of loneliness, self-doubt, childlike fascination, jealousy, and guilt, there are many moments throughout the novel where we are offered these important glimpses of The Outsider's humanity, seeing it as a person with feelings we can relate to. However, regardless of any humanity it may show, the characters ultimately decide that there is no hope for The Outsider not to be a violent creature, trapping it then within the confines of biological determinism. Lem ponders the complexities of The Outsider, from its ability to learn speech when it should not have been able to, and its grasp of the importance of civilization. However, regardless of Lem's awareness The Outsider has been able to accomplish feats no one assumed it was able to, he decides that The Outsider cannot change when it comes to its violent tendencies: "for The Outsider change was impossible; murder was in the beast's genes, locked in, and it could expect no hope of re-creation or salvation" (Koontz 214). What Lem's mindset is doing here is essentially robbing The Outside of any potential agency, keeping it confined to the monster category, with no hope for transformation.

Thus, this finality allows the human characters to justify killing The Outsider. Long before The Outsider is finally killed by Travis, Lem makes a promise to himself: "When I find you, I won't consider trying to take you alive; … I'll shoot you quick and clean, take you down

fast. That was not only the safest plan. It would also be an act of compassion and mercy (Koontz 214-15). In contrast, to justify killing, Travis's approach is to deny himself feelings of compassion. When he realises that The Outsider is attempting human speech, he feels horrified "at the thought of how desperately the thing must have wanted to communicate with someone, anyone. He did not want to pity it, did not dare pity it, because he wanted to feel good about blowing it off the face of the earth" (Koontz 377). The feeling of pity that is stirred within him lasts only as long enough for him to recognize it and then immediately dismiss it. While it is easy to comprehend Travis's desire to push aside his feelings of pity, Lem's insistence that killing The Outsider is an act of compassion is a little more complex. I would not argue that the novel provides reason for us to doubt Lem's line of thinking, to not believe that he genuinely thinks he is acting with compassion. Yet, as I have touched on throughout this dissertation, death can be seen as the "ultimate irreversible harm … foreclosing every opportunity to find satisfaction" (Regan, 117). It is one matter to choose mercy killing when one is already physically dying, but how is this matter complicated when it comes to *mental* anguish? Furthermore, how is it complicated when this mental anguish is completely caused by the people who have the power to kill the one who is suffering? None of the characters think to themselves that perhaps if The Outsider was treated as less of a monster, it could have gradually learned to act with benevolence. There is hypocrisy in refusing to think in this manner, since they know The Outsider has already accomplished feats that they did not think possible (like physical speech). Nonetheless, The Outsider is denied this opportunity for further development precisely because it is viewed as a monster. By the end of the novel, it is Einstein who is allowed to live. Travis and Nora lie to Lem and the rest of Banodyne, claiming that The Outsider succeeded in killing Einstein, to stop them from looking for him and thus prevent Einstein from ever being taken

away. It is a "happily ever after" for Einstein because he is consistently treated with care. The Outsider is not granted such kindness; even at its end, what prevents The Outsider from at least dying happy is the lack of care given to it throughout its life.

Vandermeer's *Borne* demonstrates many of these same patterns that we see in Koontz's *Watchers*. Readers are met with a charismatic, genetically engineered animal who is meant to be seen as likeable and sympathetic. They are also met with a biotech animal figure who is meant to be feared and hated like The Outsider is. Both novels also strive to reveal the hypocrisies in these cultural attitudes. Yet, Vandermeer's novel has a different approach to the "happily ever after" for these genetically engineered beings, showing further complexities when it comes to caring for and feeling compassion for biotech animals.

Jeff Vandermeer's *Borne*

Vandermeer's *Borne* is a biotech-focused post-apocalyptic novel, set in a nameless future city. Living in the ruins of this city is Rachel, the human protagonist and first-person narrator of the novel. Rachel often goes scavenging in the city for various genetically engineered creatures and products, created by a biotech firm called "The Company", a corrupt organization that once governed the city. The Company is responsible for the creation of the biotechnologically engineered creatures that roam throughout the city, which the human characters refer to as "biotech". While the true overall purpose and intentions of the Company are never revealed, these biotech creatures are essentially products and tools for human-centered purposes; for example, the Company manufactures and sells "memory beetles", beetles that allow for the extraction of memory from one host to another, a tactic often used by unhappy residents of the city to forget their bad memories.

The novel opens with Rachel on a scavenging hunt, when she finds what readers later learn is one of these products/tools – a mysterious sea-anemone shaped creature. While she cannot explain it, Rachel feels an undeniable connection to this creature, and soon names it Borne. Rachel brings Borne back to the Balcony Cliffs, an abandoned hotel where her and her partner Wick live. As the novel progresses, Rachel finds herself continuously blurring the boundaries between plant, animal, and person as she witnesses Borne's body and mental capabilities rapidly evolving and reconsidering how to label him. Meanwhile, Rachel, Borne, and Wick are met with various threats, one of which is "the Magician", an enigmatic figure who used to work for the Company and is rumoured to be collecting ammunition and soldiers to fight off a dangerous, gigantic bear, and regain control of the land. The most notable threat in the novel, perhaps, is Mord, the bear himself. The city is also plagued 'Mord proxies", which are hundreds of smaller versions of Mord, who idolize him and much like him are also driven only by a ferocious sense of bloodlust. Similar to how Einstein and The Outsider serve as both foils and parallels to each other in *Watchers*, I look at how Borne and Mord are also treated as such in Vandermeer's novel.

As I mentioned earlier, I agree with Deckha's encouragement for the concept of "beingness". Yet, I also do not think it is necessary to abandon the idea of "personhood". For example, in my past written work on *Borne,* I argued for a re-imagining of personhood, framed as a "posthumanist personhood." In this section (and throughout the chapter) I do not wish to abandon the word "person", since we can accept a recognition of nuances and moments where this word is becoming a placeholder for something else, another related idea – beingness. While my previous work on *Borne* did consider personhood and posthumanism, it did not directly address the concept of ethical care. Here, I expand on my previous discussion of *Borne* by

directly engaging with care ethics in connection with posthumanism, and by exploring additional moments from the novel. Some of these additional moments feature the depiction and treatment of Mord, a character who I had not previously explored.

Throughout the novel, Borne's physical appearance constantly evolves and shapeshifts. When Rachel finds him, she describes him as "dark purple and about the size of my wrist … a half-closed stranded sea anemone" and that he "strobed emerald green across the purple every half minute or so" (Vandermeer 3). While his gender is made clear, in the sense that Rachel always refers to him with masculine pronouns, he is still "anatomically and physiologically a taxonomic and ontological mystery" (Nayar "To the Posthuman Born(e)", 100). This "ontological multiplicity" is what Nayar sees as "a category confusion that is hallmark of the grotesque and monstrous" (Nayar 100). It is soon clear to Rachel that Borne is a hyper-advanced genetically engineered creature created by the Company, who rapidly grows and changes form. While we could argue that being a biotech animal alone already shifts Borne close to the category of "monster", we know that this was not the case with Einstein in *Watchers.* The human characters in Koontz's novel do not view Einstein through the lens in how one culturally sees a monster. This choice in perception is because Einstein, a golden retriever who physically appears like a typical member of his breed, thus does not *look* monstrous, nor does it look mysterious or unfamiliar. Borne's monstrousness, then, is emphasized by the fact that he cannot be easily taxonomically categorized; it is the mystery that causes unease. This sense of unease continues as Borne shifts, without noticeable stability, from looking plant-like to looking more animal-like, as he soon takes the shapes of a "large vase or a squid" (Vandermeer 43). Soon, he is able to shift into any shape he wants. Borne's shapeshifting ability and the unpredictability in how he will continue to develop "might suggest to us that he occupies all states of being at once – in doing

this, he is then many creatures at the same time" (Sousa 2021, 182). Braidotti explains that "A posthuman theory of the subject … aims at experimenting with what contemporary, bio-technologically mediated bodies are capable of doing" (*The Posthuman* 61). It is one matter to be aware of what a body is capable of doing, but what happens when the human is met with such unpredictability? Conjuring up an image in our minds of what Borne looks like may be difficult because of the constant shifting, and because at no point in our own world are we used to encountering "naturally born or genetically modified animals with Borne's exact ability" (Sousa 2021, 182).

Yet, while we are aware of these biotech origins, the way Borne adapts the appearance of eyes and a face may depict him as less of a "machine" and more as a being. After the first time Borne talks to Rachel, Rachel observes that he "had developed a startling collection of eyes that encircled his body. Each eye was small and completely different from the others around it. Some were human – blue, black, brown, green pupils – and some were animal eyes, but he could see through all of them" (Vandermeer 43). This collection of both human *and* animal eyes suggests that "he is not yet deeply influenced by the human gaze" (Sousa 182). As I mentioned in my discussion of an exchanged gaze between Okja and Mija in chapter 1, the idea of "the gaze" is a philosophical term used in critical theory to describe the act of seeing and the act of being seen, and it is "integral to systems of power, and ideas about knowledge" (Cartwright and Sturken 94). When the gaze is carried out, some form of relationship is established with the subject being looked at, one that is often informed by social and cultural hierarchies. By looking back at Rachel, Borne establishes a relationship with her, and with this he becomes "influenced by human conceptions of knowledge" (Sousa 182). Rachel explains, "When Borne saw me staring at him, he would make the sound like the startled clearing of a throat, and his flesh would absorb

all of the eyes except two, which would migrate higher on his body and away from each other … He must have thought he looked more normal that way" (Vandermeer 44). This moment suggests that Borne, with his collection of human and nonhuman eyes, is responding to the stimuli he is looking at: Rachel. By placing only two eyes near the top of his body, he attempts to "mirror *her* back to her as a form of communication" (Sousa 183). In ~~his work~~ *What is Posthumanism?*, Cary Wolfe considers animals altered by biotechnology and questions the "ethics of 'the face'" (Wolfe 147). Wolfe explains how philosopher Emmanuel Levinas theorizes the "call of the face" as something that marks "the site of an unanswerable obligation to which I am held 'hostage,' to use his term, in an infinite responsibility to the other" (147). Wolfe explains that for Levinas the subject that can make a call with their face is the human, whose "ethical standing is secured by his access to both *logos* and the Word" (147). Yet, Wolfe explains that it is nonsensical to think that a gaze between a human and a nonhuman – for example, Derrida and his cat – can be divorced from the face. He then poses a key question: "How can the looking back of the animal – and the ethical call harbored by that look – be disengaged from the humanism for which the face (and faciality generally) is perhaps the fundamental figure?" (148).

I would argue that even though Borne reflects the human back to Rachel, we see this moment disengaging itself from humanism when Rachel, in reaction and response, shoves aside any thoughts that may suggest human superiority. Rachel chooses to welcome, rather than shy away, from moments and encounters where she is taken aback. John Berger writes about the ability for humans and animals to surprise each other: "The animal scrutinizes [the human] across a narrow abyss of non-comprehension. This is why the man can surprise the animal. Yet the animal – even if domesticated – can also surprise the man" (Berger 5). Rachel, before witnessing Borne's new face with two eyes, admits her confusion about him: "[The eyes]

perplexed me because I didn't know what they meant" (Vandermeer 43). By acknowledging her own confusion over what she is seeing (or not seeing), Rachel seems to begin understanding that the "meaning" of genetically modified animals cannot easily be found just by looking at their exterior. While she may be looking across an "abyss of non-comprehension" (Berger 5), Rachel, nonetheless, still keeps wanting to learn more about Borne. This desire to learn and willingness toward curiosity is comparable to Travis's feelings towards Einstein; both human characters cultivate care for the animals as a result of their curiosity.

Yet, Rachel's desire to keep learning is complicated by her conflicting perceptions toward him. This is especially seen during the early days of having Borne in her home and in her care. On one hand, she has "a habit of seeing biotech primarily in terms of practicality and use-value" and on the other, she wants to see him as "a being she simply wants to nurture and take care of" (Sousa 184). Wick, however, works with biotech, and tells Rachel that they should "know its [Borne's] purpose" and that he'd like to "at least break it down into its parts … Discover more that way. Make use of it" (Vandermeer 14). Here, Wick is unable to empathize with Rachel's desire to nurture Borne since he is more inclined to view Borne as "a potential for economic exchange" (Sousa 184), and to extract it of its "use". Yet, as the novel progresses, Rachel actively refuses to see Borne in terms of use-value. Even before he learns how to speak human language, she admits, "I liked Borne too much. I knew this in my bones, knew I really should give him up. But I also knew it would take something catastrophic for me to do so. The more personality Borne showed, the more I felt attached to him" (Vandermeer 23). On the one hand, this mentioning of a possibility of "something catastrophic" may be a foreshadowing of a moment much later in the novel where Rachel realizes she may have to give him up. However, at this point, the reader is not yet aware of this. For now, the reader can see this moment as Rachel

recognizing and appreciating the personality that Borne has. This, subsequently, demonstrates her awareness that a biotech animal such as Borne can indeed be individuated.

Later, Rachel also starts to see Borne as quasi-child, repeatedly thinking of herself as a protective parent and him as a child who is growing up too fast: "Sometimes, when my parents had looked at me in an adoring way, I felt the weight of their love and stuck my tongue out like a brat. Now I looked at Borne the same way" (Vandermeer 71). While we may want to call such an inclination anthropocentric or anthropomorphic, it would not be entirely fair to do so since she never completely forgets that he is not human. It is also not uncommon for people with companion animals – more often women (Grauerholz and Owens 9) – to view themselves as a quasi-parent to their pet, an assigned role that is "less about anthropomorphizing the animal" and more so about "an understanding that it does not only have to be humans who are worthy of being recipients of human parental (or parental-like) affection" (Sousa 185). Rachel not only extends parental-like love and care to an animal, but notably to a biotech animal, an animal who she has admitted to feeling confused about. Rachel is certainly not ignorant of her unique situation: "In how many species did the transformation become radical, the parent so different from the juvenile?" (Vandermeer 24). Yet, she tries her best to not allow these differences to hinder her love for Borne.

With this being said, it is important to note that her refusal to allow these differences to dictate the strength of her love does not mean that she is ignorant to the differences. In fact, Rachel displays moments where she is able to recognize when she is not being fair to Borne or projecting onto him her own anthropocentric and ignorant notions. In these moments, she typically feels remorse for her behavior. Throughout the novel, Borne seems to play a role as Rachel and Wick's "powerful helper" who tries to protect them by fighting feral biotech

creatures, such as the Mord proxies, and later defeating Mord at the end of the novel. Randy Malamud's discussion of animals that serve as helpers or "angels" in film can also be applied to animals in other narrative mediums: "These characters develop alongside animals, but they are still ultimately very much human identities" (Malamud 7). Even though Borne is certainly seen adulating and protecting Rachel, Rachel soon accepts that she cannot *only* see Borne with her ideas of human identity. For example, throughout the novel, Borne kills other animals in order to eat. Rachel is consistently distressed by this, and persistently tries to teach him that killing is immoral and that he needs to stop. Rachel, here, seems to primarily be seeing Borne as a quasi-human, measuring him by human standards. Eventually, she acknowledges that enforcing this mindset is anthropocentric: "would you make a wolf feel guilty for eating its prey?" (Vandermeer 225). While it may be easy for Rachel (and us) to understand that a wolf, a predator animal, needs to hunt prey, it is also easy for Rachel to want to project human ways of living onto Borne. The fact that he is a hyper-advanced genetically engineered creature, with an understanding of human language, makes this temptation and inclination even stronger. Nevertheless, Rachel soon realizes that it is not fair for her to think in this way. She reflects on the times Borne tried to communicate to her his inability to stop killing: "In so many ways, Borne had told me 'I can't stop.' I can't stop growing. I can't stop who I am. I can't stop killing people, and I had shut him out, ignored him, tried to pretend he was something other than he was, and in doing so I had betrayed him" (Vandermeer 191). Her realization here that she "betrayed" Borne by ignoring what he was telling her is important; by admitting this, she recognizes the fault in not allowing Borne to carry out what his body needs to do.

Rachel also accepts and recognizes the power of other forms of interaction and communication, even when there is an absence of spoken word. For example, when Borne is hurt

by another animal, Rachel inspects his body for wounds, and explains the effect of doing so: "it was through touch that I began to understand his complexity … With each new unfurling, Borne was letting me get closer to the heart of him, while he spoke not a word but let me find the wounds for myself" (Vandermeer 149). Here, not only does Rachel not need human language to try and understand Borne, but it may, in fact, be "the lack of human language, and only the sense of touch, that allows her to realize the complexity of this biotech creation" (Sousa 186). This topic of touch and bodily worlds is not uncommon in posthumanism discussion. DeFalco, in her own consideration of touch and contact in posthuman worlds, notes that many scholars of touch have continuously pointed out the degree of intimacy and transgression that is involved in touch when "one's ostensibly discrete body makes contact with the world" (DeFalco *Curious Kin,* 64). When this happens, "boundaries blur as self and not-self meet" (Holler 2). In these moments of direct physical contact between Rachel and Borne, the novel invites us to also look at what comes next. Haraway asks "What obligations ensue from the experience of entangled lives once touch has been initiated?" (Haraway 2008, 280). Through mutual trust and care, Rachel and Borne's lives become entangled in this moment of touch. Rachel ponders, "Was this what it was like to touch something that no one had ever touched before, or rarely? … To understand that beyond the seeing eye, the knowing eye, there was such a wealth of unique touch?" (Vandermeer 149). As DeFalco realizes, "Anything I touch, touches me; I am affecting and affected" (64). While Rachel understands that there is a lot she cannot see or know about Borne, she knows that there is a value to physical encounter. This moment between the two shows "an acceptance and appreciation for the fact that there will be elements of this biotech creature that may always be a mystery to her [Rachel], but that these encounters are important in realizing that we do not have to feel threatened by this uncertainty" (Sousa 187).

Furthermore, another important scene and moment of touch in the novel demonstrates a noteworthy moment of symphysis between Rachel and Borne, which reveals their attempt at mutual understanding. Ralph Acampora uses the term symphysis to refer to an understanding between two or more beings based on shared bodily experiences, and to demonstrate that "cross-species compassion is mediated by somatic experiences" (Acampora 23). In this scene, Rachel and Borne are trying to hide from dangerous Mord proxies. In an attempt to hide she asks Borne to shapeshift into a form that can hold her (and hide her) inside of his body: "Can you pretend to be a rock, with me inside – with room for me to breathe inside?" (Vandermeer 101). Rachel explains that Borne "unfurled, uncurled, and rose high and came down like a crashing wave, and me tumbling in the middle of it all, bent over and crushed by cilia and rubbery flesh" (Vandermeer 102). In this moment of Rachel being held inside of Borne's body, who she describes as "a living organism that still defied explanation, that was, no matter how I loved it, a mystery to me" (Vandermeer 103), what occurs is a "cross-species somatic unity … that allows both beings to rely on each other, both physically and emotionally" (Sousa 187).

Rachel and Borne share mutual experiences while she is, essentially, cocooned inside of his body. Rachel explains, for example, that she "could feel the vibration of Mord proxy paws and Mord proxy jaws biting into Borne" (Vandermeer 103). When Rachel feels that her "claustrophobia would have sent [her] over the edge" (Vandermeer 103), she explains that Borne "sensed" it: "Borne knew what was happening within and without. The space widened and a dull green light came from the flesh walls all around me to let me see and a flesh book extended out of the wall and on a shelf that formed I saw a telephone" (Vandermeer 103). When Rachel answers this make-shift telephone formed from Borne's flesh, he answers and tells her "You don't even have to make a sound. I'll hear you if you mouth the words" (Vandermeer 103). This

cross-species compassion is found in Borne sympathizing with Rachel's claustrophobia and then tries to calm her down. In other words, it is not just Rachel caring for Borne here; Borne's desire to also care for Rachel demonstrates the trust and affection he has for her. Sara Ahmed and Jackie Stacey argue that analyses of embodiment that are separate from other bodies are insufficient for a more thorough understanding of materiality's role and contribution to one's status of being. In their words, thinking about embodiment means reflecting on "inter-embodiment, the mode of being-with and being for, where one touches and is touched by others" (1). This moment of Rachel and Borne touching and being touched by each other is both literal and figurative. While in close bodily proximity, they also come to understand each other's compassion for the other. In his work on posthumanism, Nayar explains that critical posthumanism "favours co-evolution, symbiosis, feedback and responses as determining conditions rather than autonomy, competition and self-contained isolation of the human" (*Posthumanism* 20). This close bodily and emotional encounter between Borne and Rachel reveals the potentiality for interspecies care, one that allows for bodily and emotional intimacy and closeness.

Part of what allows for a greater emotional intimacy between Rachel and Borne is Rachel's genuine consideration for his feelings and concerns. Most notably, we see Borne expressing his unease over whether or not he is a person. Vandermeer's novel seems to suggest that we should see Borne as an example to think beyond Cartesian thoughts when it comes to the animal; such thoughts claim that animals only react (and never respond) and are nothing more than "automata". For example, Rachel tells Borne that a machine is "A made thing. A thing made by people", and a "puzzled" Borne responds "You are a made thing. Two people made you" (Vandermeer 45). Sam Gorley argues that "Borne shows that monsters can also appear to

us as potential kin: embodied and intelligent subjects with ethical demands of their own that exceed traditional frameworks of 'humanness'" (Gorley 65). It would indeed not be traditionally "human" of Rachel to readily admit that she is a made thing, but Borne's ethical demand to learn, understand, and feel comfortable in his identity forces Rachel to understand the ways in which she and Borne are actually more alike than she may give credit for. Rachel then tries to clarify what she means by the idea of a "made thing": "I mean something made out of metal or of flesh. But not through natural biological means" (Vandermeer 45). Borne, in response, is agitated and clearly does not understand why there has to be a distinction: "Two people made you. You are made of flesh" (Vandermeer 45). Rachel then immediately changes the subject, suggesting she has no logical response to his counter argument. This moment is important for our discussion of what is animal-like and what is machine-like because "Borne is not only responding to Rachel's words, but suggesting that a different origin of creation does not necessarily make a human being less of a 'made thing.'" (Sousa 189). Braidotti explains her idea of "becoming-machine" which "cracks open the division between humans and technological circuits, introducing biotechnologically mediated relations as foundational for the constitution of the subject" (*The Posthuman* 67). For his own constitution as a subject, Borne has to not only see himself as a made thing, but Rachel as well, in order to eliminate any implied distinctions of superiority (i.e., being made from "natural biological means" versus metal or flesh). In contrast, Rachel is confronted with ideas that ask her to rethink her own constitution, for "If Borne is a made thing, subject to technology and programming, Rachel is a made thing subject to the organic programming of her body" (Sousa 189). Vint explains the power of animals in science fiction to challenge ontological dichotomies, explaining that they are often "a cyborg being that challenges taxonomic divisions among humans, animals and machines" (*Animal Alterity* 188).

Borne is also concerned with whether he has a "purpose." When he asks Rachel her thoughts on the matter, she explains that while she had her skepticism, she was still "trying to be a good parent, a good friend, to Borne", and so she tells him "Yes, everything has a purpose. And every person has a purpose, or finds a purpose" (Vandermeer 64). When Borne asks her "Am I a person?", Rachel does not hesitate with her response: "Yes, Borne, you are a person" (64). Throughout these assertions that Borne is indeed a person, Rachel reveals that she does not necessarily view the status of being human as a requirement for personhood. For example, later in the novel when Borne gives up on trying to refrain from killing and accepts that he was made to do so, he tells Rachel, "I'm not built like you. I'm not human. I'm not a person" (Vandermeer 261). In response, Rachel does not insist that he is a human, but insists to him "You are a person" (Vandermeer 261). While one may argue that her insisting to Borne that he is a person is neglecting the fact that he is "not built like [her]", I would argue this is not the case precisely because she does not try to tell him that he is a human. Rachel chooses personhood over human status. Rachel's insistence that he is a person is especially significant since she outwardly disapproves of him killing other animals in the wild; she is choosing, then, to focus instead on how he aligns with personhood rather than how he may fall in line with monstrosity. Furthermore, since she knows Borne is not human, she makes no attempt at seeing human and person as synonymous terms. Rachel's notion of personhood, then, is of individual beings deserving of understanding and thoughtful consideration. This notion is also manifested when she acknowledges Borne's individuality. For example, Borne asks her if he is a fox and she responds that he is not; with his follow-up question "Then… am I a… Borne?" (Vandermeer 88), Rachel responds "Yes. …. You are a Borne" (Vandermeer 88).

In a later scene, Rachel catches Borne talking to himself, pondering over whether he is a weapon: “I don’t feel like a weapon. I do not look like other weapons. Maybe I was meant to be a weapon, but I came out wrong. I don’t even know where the word *weapon* came from. I did not have it before. Weapon weapon weapon. Weapon? Wea-pon. Wea. Pon. Apon” (Vandermeer 277). Here, with his repetitions and various breaks in his speech, we see Borne’s fascination with words and the power he thinks they hold in shaping one’s identity. Rachel listens to this and thinks that Borne was “Digesting the word before it could colonize him” (Vandermeer 277). In other words, the more Borne says the word, the more it could possibly lose its meaning or power. This is a moment where the reader is meant to feel compassion for Borne, sympathizing with his good intentions and his overall distaste towards the idea of being a violent figure meant for causing harm. Here, it is not only that he worries about not having a purpose, but he also worries that if he *was* meant to be a weapon, then his purpose would have been a violent, harmful one.

Yet, despite the genuine worry he feels at the idea of being a violent weapon, Wick indirectly convinces Rachel to banish Borne from their home. Part of the reason why they kick him out is because they learn that Borne has been shapeshifting to look like Wick. Borne does this because he realizes that Rachel and Wick have been arguing and that their relationship has been tense since Wick revealed to Rachel the Magician’s insistence that they hand over the Balcony Cliffs to her. Borne, in an attempt to fix their relationship and make peace between them, disguises himself as Wick and approaches Rachel. While Rachel understandably feels violated by this deception, another thing worth noting here is that this is the first time in the novel where Borne has admitted to shapeshifting into a human that Rachel knows. One of the characteristics that Cohen assigns to monsters is that they are marked by a “refusal to participate in the classificatory ‘order of things’” calling them “disturbing hybrids whose externally

incoherent bodies resist attempts to include them in any systematic structuration" (Cohen 6). Using this definition, Nayar argues that Borne would have to be considered a monster. However, for Rachel the monstrosity is not in the fact that Borne's shapeshifting body is entirely "incoherent", but rather it is that his body is "uncannily similar to (and can mimic) the human, or become human" (Nayar "To the Posthuman Born(e)", 104). In other words, "it is the ability to be human, assuming the shape and features of the human, that is monstrous" (Nayar 104). To "be" human, here, means to look human, not necessarily requiring humane acts or feelings. Gorley also comments on this uncanny connection between humans and nonhumans: "Creatures like Borne, situated in an uncanny zone between human and nonhuman … present a challenge to the belief in the human exceptionalism that has been the ideological motor of our species' history" (Gorley 63). Arguably, it would not only feel scary and violating for Rachel to learn that Borne accurately disguised himself as Wick, but it would also hurt any sense of belief she had in the unique-ness or specialness of the human. This moment serves to challenge the idea that there is something 'special" that humans possess that ultimately separates themselves from nonhumans. On one hand, there is of course irony in the fact that Rachel sees Borne as more of a monster and as something to fear when he looks too human – or, rather, a human that she knows and loves. The irony rests in the fact that the other moment where she sees him as monstrous is when he does not act with what Rachel and Wick would view as "humanity" – specifically, when he engages in instinctually motivated killing.

When Rachel learns that Borne has not only been killing animals in the wild, but also people, she is overwhelmed with the moral implications of this knowledge. While Borne's justification is that he does not "kill" but he "absorbs" and "digests", insisting that everything he eats is still alive in him (Vandermeer 185), and he insists that he tries to only kill morally corrupt

people or people that are already dying, Rachel and Wick cannot stop thinking about the loss of life that occurs when Borne eats another living being. Rachel hears Borne's justifications and thinks about whether they should matter, and whether they should speak to who he is as a person: "Didn't it matter that Borne was conflicted, that he didn't want to kill? Maybe not. But the fear stole over me, from some almost imperceptible change in Borne's aspect, that we couldn't make him agree to die. That he would never agree to be taken apart, and that I would have such a difficult choice then …" (Vandermeer 185). There is, of course, an irony here in that Rachel and Wick condemn Borne for killing living beings, but to "make [Borne] agree to die" would also mean Rachel and Wick are, essentially, killing Borne. Even though Rachel cares about Borne, her fear of what his body can do leads her to agree with Wick and banish him from their home. Borne is clearly distressed at the idea of having to leave Rachel and Wick's home, as demonstrated with his responses, such as when he says "But I love you … You're my family", "I'll have no home", and "I'll have no one to talk to" (Vandermeer 185). At this moment, the reader is meant to feel compassion for Borne because his feelings – of loss, rejection, and loneliness – are *person*al feelings that many can understand and relate to. To say Borne is humanized at this moment would be one interpretation, but it may be more appropriate to say that he is *person*ized. Indeed, right before Borne leaves, Rachel argues against the idea of him being what we are viewing as the binary "other" to a person – a monster. She thinks to herself "Wouldn't a true monster, a true killer, have absorbed us or given an ultimatum, murdered us and taken over the Balcony Cliffs?" (Vandermeer 187). Even during these moments of realization that Borne is not an entirely innocent figure (exemplified through his killings), Rachel wants to understand him, and she can never bring herself to fully lump him into the category of a monster.

There are also moments throughout the novel where the reader is given more direct access to Borne's inner thoughts. Some important moments of the novel are when the reader sees Borne, this genetically engineered being, engaging with the act of writing to try and make sense of his identity. In one scene, after Borne has been banished from Rachel and Wick's home, Rachel finds Borne's journal and decides to read it. When Rachel opens his journal, the first thing she reads is a reflection of his name: "My name is Borne. – My name is not Borne. That is just something Rachel calls me. It means to carry something you don't want to carry" (Vandermeer 189). If the reader did not recognize it before, there is no doubt at this moment that Borne has felt like he is a burden to Rachel. Some lines in his journal continue to reveal his crisis of identity. For example, he writes "– I am not human. I am not human. I am not human. – Rachel says I am a 'he'. Am I a he, she, or both or neither? – I am a person" (Vandermeer 189). Later, he writes "I do not know when I am being what they want me to be and when I am myself. It is better when I am 'cute'. It is safer" (Vandermeer 190). In "A Cyborg Manifesto", Haraway outlines the connection between cyborgs and the act of writing: "Writing is pre-eminently the technology of cyborgs, etched surfaces of the late twentieth century. Cyborg politics is the struggle for language and the struggle against perfect communication, against the one code that translates all meaning perfectly…" (154). What Haraway means here is that there is no perfect way to speak about side-lined, oppressed, or mysterious identities. Similarly, French philosopher Jean Baudrillard claims that the very notion of a singular language as the arbiter of all meaning is hard to imagine. In his words, "No language can become total at the expense of all others" and language "never says (only) what it means" (Baudrillard 148). As we can see with Borne's back and forth wording and his constant questioning, language does not prove as something totalizing for his identity. Because Borne is a mysterious identity in that he is an uncommon fusion of

animal and machine, it is especially difficult for him to explain what he means – to describe accurately what he is, what he is doing, or what he thinks he should be doing. Borne's writings reveal to the reader that his ideas regarding his own identity are heavily influenced by the thoughts of the humans in his life.

On the topic of these human characters, this leads to a segue into a brief consideration of Rachel's relationship with Wick. While Borne plays a huge role in Rachel's recognition that traditional ideas of personhood should be challenged, so does Wick. Later in the novel, Rachel learns that Wick is not fully human – he is a product of genetic engineering, also manufactured by The Company. Many of Vandermeer's novels offer ambiguity, and that is also the case in *Borne* in that readers do not learn the details of Wick's origins. In response to this discovery that Wick is not exactly human, Rachel maintains that Wick – along with Borne – is a person. In the words of Nayar, for Vandermeer then, "Personhood … is in the eye of the beholder" (Nayar "To the Posthuman Born(e)", 104). Rachel reflects upon first making this discovery: "Wick had never been a person. But he had always been a person to me" (Vandermeer 299). Rachel later reflects again on what this revelation means: "Wick never believed he was a person, was continually being undone by that. Borne was always trying to be a person because I wanted him to be one, because he thought that was right. We all just want to be people, and none of us know what that really means" (Vandermeer 320). In Gorley's words, "perhaps this—to be a person to someone else, even if we do not know what it 'really means'—is enough to ground a minimal ethics of weird personhood" (Gorley 69). Indeed, this idea of conceptualizing personhood may be "weird", but Gorley's statement and choice of word is an observational one, not one of judgement. The weirdness or abnormality rests in the fact that this way of viewing personhood is not clear-cut or easy to pin down, especially in comparison to legal, philosophical, and

essentially anthropocentric conceptions of the term. Even though Rachel acknowledges that "none of us know what that really means", she continues to maintain their status as a person. In other words, she accepts her own idea of personhood, one that is not species-specific and strives to treat people with the respect they would want to be treated with.

As the end of the novel approaches, Borne defeats a rampaging Mord before he can completely destroy the city, an act that ultimately saves Rachel and Wick's life and an act that Gorley argues "transformed him into an ethical being" (Gorley 74). It is a transformation because Borne is willing to sacrifice himself to protect Rachel's future safety, and he does so in "an enactment of selfless love" (Gorley 74). Gorley points out that rather than choosing to defeat Mord with self-serving violence and brute force, his choice of trapping Mord inside of his own body results in their mutual destruction. During his battle with Mord, Borne shapeshifts into a version of Mord himself, allowing him to be able to fly. As he lures Mord to a battle that they take to the sky, Borne defeats Mord by shapeshifting into an extensively long sea-like expanse of skin, absorbing Mord inside him. Benjamin Robertson argues that this self-sacrifice is possible because Borne lacks monstrosity: "If Borne lacks the monstrous hardness necessary to fight Mord, such is the case because he possesses a tiny amount of something else, something from which the planet has turned away in this age of giant monsters: humanity" (Robertson 155). While Mord does manage to eat away at Borne from inside him, the battle soon ends when Mord and Borne disappear in a "blinding-silver white light, a radiance that seared out across the landscape" (Vandermeer 314), that throws Rachel and Wick to the ground. When Rachel and Wick awaken, there are no traces left of Borne or Mord. With the loss of Borne, Rachel is "filled with grief" (Vandermeer 314). Not only does her grief solidify the love she feels towards Borne, but she also tries to imaginatively put herself in his shoes when she reflects on the battle: "I knew

Borne was terrified at the end. I knew that he had suffered, but that he had given us this gift of a better life anyway, and I mourned the child I had known who was kind and sweet and curious, and yet could not stop killing" (Vandermeer 314). This juxtaposition of "kind and sweet and curious" and "could not stop killing" demonstrates the possibility and existence of personable *and* monstrous qualities cohabiting in the same bodily being, thus suggesting a blurred line between these two categories. Nonetheless, Rachel's awareness of Borne's monstrous inclining's does not make her want to stop seeing him as a person.

Later, it is revealed that Borne has reverted back into a plant-like organism, resembling his appearance when Rachel first found him. On a later scavenging trip, Rachel finds him again – or, at least, what she believes to be him. Rachel then brings him home, places him on her balcony, and explains her intention from that point forward: "Wick could see him, and I promised myself that if Borne ever grew, if he ever spoke, I would end him. That if Wick wanted to take him, Wick should take him and use him for parts" (Vandermeer 322). What does the novel want us to make of Rachel's willingness to "end him"? On one hand, this willingness certainly aligns with the ultimate deprivation that arises when one has their life taken away by another. The idea of care is complicated here because it may not seem caring towards Borne if Rachel or Wick were to, indeed, end him. We may be inclined to argue that Rachel's readiness to give Borne up to Wick and allow him to be taken apart if he starts to demonstrate power is revealing of her loss of compassion and empathy (Sousa). Yet, on the other hand, while this deprivation of life may not be caring towards Borne, it would certainly be caring towards the other animals and possibly humans that Borne would inevitably kill if he were to evolve again. While killing other animals is, of course, something many animals do and need to do, taking Borne apart at this moment would allow for future animals to not have their lives at risk if Borne

were out in the wild. After all, we must no forget that Borne was not naturally born as a predator, but engineered into one. Rachel also knows that Borne does not want to be a "monster." Gorley suggests that we can see this ending as "a moving illustration of the irreconcilable necessity of both relinquishment and care, of letting-go and being-with" and argues that "We must read this not as reiteration of human domination, however, but as a two-way ethical entente worked out wordlessly between Rachel and Borne. On equal terms, both give up a part of themselves in order to ensure the tentative flourishing of an entangled community" (Gorley 75). Of course, we could also argue that Borne is conditioned to view his actions as "monstrous", so we may be inclined to wonder how much agency he truly has to willingly give up a part of himself. Nonetheless, Borne never evolves beyond his plant-like state. Rachel reflects on this, explaining that "Borne did not move on his own; he was just a kind of plant, taking sustenance from the sun. Borne never spoke again, although I spoke to him and maybe I wished he could respond, but only a little" (Vandermeer 322). I would argue that it is unfair to accuse Rachel of anthropocentrism or anthropomorphism at this moment, since it is only to be expected that Rachel would sometimes have this wish, since she became used to having reciprocated conversations with Borne. It would also be unfair to call this moment anthropocentric because Rachel still chooses to care for him and keep him safe in their home, even though he is now a speechless plant (Sousa). Remaining in one piece and untouched by Wick (and thus not necessarily offering any use-value), Borne is able to exist as he is, and be cared for by Rachel.

Ultimately, it is not so much that Rachel loves Borne in spite of his differences, but because of them. In one scene, soon after her conversation with Borne about whether he is a person or a weapon and if he has a purpose, Borne and Rachel are looking down from Rachel's balcony at the poisonous river. When Borne calls it "beautiful", Rachel realizes that there is

indeed a beauty to it and recognizes that she loves Borne: “I realized right then in that moment that I’d begun to love him. Because he didn’t see the world like I saw the world. He didn’t see the traps. He made me rethink even simple words like disgusting or beautiful” (Vandermeer 56). While this may seem like a simple statement, Rachel’s appreciation for Borne not seeing the world in the same way she saw it is an important one. It is an appreciation that allows her to challenge her own ways of thinking when it comes to many concepts or dichotomies; she can rethink what it means to be “disgusting” and “beautiful” and she can rethink what it means to be a monster and a person.

On this note, I would like to now draw our attention to one of the novel’s antagonists – Mord, the gigantic, angry, flying bear. Currently, there is still limited scholarship on *Borne*, and discussions surrounding Mord are especially lacking. Mord is an antagonist in the similar sense that the Outsider is an antagonist in *Watchers*. While Vandermeer gives Mord considerably less attention than what Koontz gives the Outsider in *Watchers,* it is still necessary to examine his depiction and treatment in comparison with Borne. As we learn early on, Mord, like all the biotech animals, is a creation of the Company. The earliest physical descriptions we have of Mord immediately sets him up as a monstrous figure. For example, his eyes are described as “carious yellow” (Vandermeer 4), and “vast, fly-encrusted beacons” (Vandermeer 5), descriptions that immediately call to mind ideas of death, decay, and doom. When Rachel found Borne, she explains that she was in the middle of tracking Mord. The reader gets a first glimpse into his excessive figure when Rachel explains what happened when she reached Mord’s resting place: “he shuddered in earthquake-like belches of uneasy sleep, his nearest haunch risen high above me. Even on his side, Mord rose three stories. He was drowsy from sated bloodlust; his thoughtless sprawl had levelled a building, and pieces of soft-brick rubble had mashed out to the

sides, repurposed as Mord's bed in slumber" (Vandermeer 5). This image immediately establishes him as a violent figure, both in bloodlust and in the destruction of the city. Rachel also sees Mord drink from the polluted riverbed: "No one but Mord could drink from that river and live; the Company had made him that way" (Vandermeer 4). Mord's ability to be able to drink from a toxic water source and still be able to live not only aligns him as something "toxic" himself but alienates him from everyone else in the city.

Rachel also reveals her near incredulousness at the fact that the Company never tried to destroy Mord. She comments on how no one "knew why the Company hadn't seen the day coming when Mord would transform from their watchdog to their doom – why they hadn't tried to destroy Mord while they still had the power" (Vandermeer 4). This attitude, of course, is in strict contrast with her general attitude toward Borne for most of the novel. From the beginning of the novel, it is clear that Rachel has no qualms about seeing Mord as something that one can easily sacrifice. In other words, he is not "grievable" in the same way Borne is (or, perhaps, at all). Nonetheless, she recognizes that it was now "too late" for the Company to destroy Mord: "for not only had Mord become a behemoth, but, by some magic of engineering extorted from the Company, he had learned to levitate, to fly" (Vandermeer 4).

In a significant moment where Rachel recalls the first time she ever saw Mord, there is an implication that Mord was not always a monster. She first spots Mord six years before she found Borne, witnessing him "[rise] from the cluster of buildings directly ahead of [her]" (Vandermeer 60). While he was still large back then, he was not "as large" and she describes his pelt as "golden brown, pristine, and clean-smelling" (Vandermeer 60), pleasant descriptors that contrast with the ones I mentioned earlier that are associated with doom and decay. She also explains the difference in his eyes back then: "His enormous eyes were bright and curious and curiously

human, not as bloodshot and curved as they would later become" (Vandermeer 60). Despite his eyes being "enormous", the adjectives "bright and curious" almost make him seem child-like, and therefore innocent. In parallel, we could also describe Borne as "bright and curious' throughout the novel. The addition of "curiously human" of course serves as a means for us to not see him as a monster, but as a person. As she concludes her recollection of this memory, she admits that "in that moment I wanted to hug Mord. I wanted to bury myself in his fur. I wanted to hold onto him as if he were the last sane thing in the world, even if it meant the end of me" (Vandermeer 61). In the middle of living her life in the chaos of this post-apocalyptic city, Rachel is able to find beauty in this strange creature who would later be seen as a monster. Of course, there are many more moments throughout the novel where Rachel grants the privilege of personhood to Borne instead of Mord. Nonetheless, Vandermeer's choice to include this recollection suggests that if Rachel was able to choose to see Mord as something almost personable at one point, the ability for humans to still see him as something other than simply a monster should still exist. Her pleasant feelings towards Mord in this scene suggests that monsters are not necessarily born monsters but *become* them. In a much later scene, we see a contrast in the transition of Mord once being "human-like" (with his "curiously human" eyes) to being inhuman. In this scene, Rachel watches as Mord tears away part of the Company building and "slurp[s] his huge tongue through the maze of stone and plastic to get at the sweetness of flesh and blood" (Vandermeer 159). She decides that "There was nothing human in his gaze in that moment, just the kind of hunger that could never be satiated" (Vandermeer 159). This scene of Rachel's recollection alongside this scene of destruction and feeding demonstrates Mord's transition into monstrousness.

In the novel's final quarter, readers learn the origins of Mord's creation, a story that more directly explains how he became a monster. In a shocking revelation, readers discover that Mord was once a human being. Rachel learns this at the same time as the readers. Wick explains to her that he and Mord were friends when they worked together at the Company. He immediately humanizes who Mord once was, explaining that Mord "liked bird-watching" and that they "ate lunches together" and that Mord "read so many books" and was "curious about so many things" (Vandermeer 249). He then explains that Mord was modified by the Company as a punishment for a previous failed experiment. Even though Wick insists that the failed project was not Mord's fault, "They [the Company] put him in an experimental division. As a kind of punishment" (Vandermeer 250). With this experiment on Mord, the Company "wanted to create an animal around a human being" (Vandermeer 305). This experiment is the opposite of what we see Dr. Moreau doing in *The Island of Doctor Moreau,* trying to create a human around an animal. Nonetheless, the novel makes it clear that it is still ethically dubious, especially when considering the torture. Wick emphasizes the brutality of the experiment, telling Rachel "None of us could have withstood what he was subjected to" and that "He could still speak and understand as they modified him and kept modifying him, until it drove him mad" (Vandermeer 250). In other words, Mord is driven to monstrosity.

Learning the origins of Mord's creation is a truth that Rachel finds difficult to accept. She thinks again about Wick insisting that Mord "could still speak and understand" and decides that she does not like that reality: "The truth is, I didn't want Mord to be like us. I wanted him to be less like us. To be able to say when he murdered, when he pillaged, that he was a psychotic beast, a creature without the possibility of redemption, with no humanity in him" (Vandermeer 251). These feelings are similar to Travis's in *Watchers* when he thinks about the Outsider.

Rachel, much like Travis, does not want to feel sympathy for the monstrous antagonist, because it is easier to see him as a monster. However, a key difference between Travis's and Rachel's situation is that Rachel, unlike Travis, has already been caring for a creature who also displays violent tendencies. When Travis compares the Outsider to Einstein, he is comparing a violent being to a wholly benevolent one. This is not the case when comparing Mord and Borne. While Borne certainly kills far less than Mord, it still cannot be ignored that he does, indeed, kill. In an earlier scene, Borne asks Rachel if there are "more like him", like how there are Mord proxies. When hearing this question, Rachel "remember[s] that [she] didn't like Borne comparing himself to Mord" (Vandermeer 133). Here, Rachel is choosing to see Borne as a creature *with* the possibility of redemption, a creature *with* humanity.

It is only to be expected that Mord would be the one sacrificed instead of Borne at the end of the novel. While on one hand we could argue that Borne is also sacrificed, in that he sacrifices part of his bodily being to defeat Mord and then only comes back as a plant-like being, Borne is still granted another chance at life. When Mord is defeated, he disappears in the air; whether or not he ever "comes back" like Borne is not revealed to the readers or the main characters. In that sense, we can see Mord as meeting the same fate as the Outsider: death. The only difference in these deaths is that the Outsider is killed by a human, and Mord is killed by a fellow biotech creature. However, he is killed by Borne to protect a human's livelihood. As Borne is dying, Rachel recalls a feeling of what Edith Stein refers to as sensual empathy, which is "a sensing of the body of another, which requires an acknowledgment of the other's suffering" (Stein quoted in Donovan 2007, 179). Rachel remembers this moment of Borne fighting against Mord: "As Borne's life ebbed, I could feel his wounds through the gravity of my own" (313). Yet, no one is there to feel Mord's wounds; no one is there to acknowledge Mord's suffering. It

is because Borne was given the privilege of bonding with a human, that he is thus treated by one as a being deserving of care. What this suggests then is that even when care leans heavily towards posthumanist mindsets (as exemplified when extending care toward a biotech animal) it is still difficult to completely divorce itself from the human. If the biotech animal (such as Mord) has no bond with a human, it is easier to dismiss their deservingness for it. However, is the novel itself suggesting that we should feel sympathy for Mord? I would argue that the very inclusion of Mord's backstory, and descriptions that characterize him as personable and less as monstrous, is a subtle way the novel asks us to rethink these dangerous, violent biotech animals as perhaps being more than they immediately appear.

Conclusion: rethinking monstrosity and personhood

As I conclude this chapter, I would like to point out Vandermeer's musings on the monstrous in the introduction of his essay anthology *Monstrous Creatures.* As he explains in the anthology's opening, "From an early age, I think I had an appreciation for a definition of 'monstrous' that did not mean 'hideous,' 'horrible,' or 'ghastly'" (5). He further elaborates that "the monstrous is the intersection of the beautiful with the strange, the dangerous with the sublime" (5). Indeed, the "monsters" in Koontz and Vandermeer's novels – both the genetically engineered "persons" and the genetically engineered antagonists – demonstrate thoughts, feelings, and behaviours that allow readers to recognize that we cannot simply categorize them as ghastly, horrendous creatures to fear and dismiss. Often these creatures are certainly dangerous, or at the very least mysterious. However, part of their beauty lies in a recognition of these creatures possessing their own backstories, insecurities, and desires.

In this chapter, through my examination of *Watchers* and *Borne*, I have sought to lay out how science fiction can show us how care and the lack thereof plays a role in how we choose to view certain cultural discourses that we consciously or unconsciously use when it comes to categorizing different beings. My goal has been to demonstrate the genre's power in revealing the blurred lines between personhood and monstrosity, and how what matters more is recognizing that even biotech animals do not and cannot exist as a fixed, molar identity, with no potential for transformation. Both *Watchers* and *Borne* reveal the power of care and its ethical practice. On one hand, care may easily be restricted by favouring beings that are presented as personable. However, as both texts demonstrate, to believe that no trace of a "person" exists within the monster may often be misguided and willfully ignorant. There is, thus, no delusion in both novels trying to claim that the responsibility we have over our creations is simple – especially when matters of discourses come into play, and how we choose to view them.

On the topic of human responsibility, the novels argue that one's fear of the animal's potential does not excuse dismissing their responsibility toward the animal. Barbara Smuts, a well-known anthropologist (often cited for her research on baboons) reflects on an important lesson she learned after reading J.M Coetzee's metafictional novella *The Lives of Animals:* "treating members of other species as persons, as beings with potential far beyond our normal expectations, will bring out the best in them" (Smuts 120). Indeed, and while both novels acknowledge the "potential far beyond our normal expectations" the issue is that the biotech animal antagonists are not given a fair shot to be treated as persons. Because Einstein and Borne are treated by their human companions as persons, the love and care they receive allows them to "bring out" part of what is "the best in them" – their own capacity for benevolence, compassion, and love towards their human companions.

In his 2013 article “Love Your Monsters”, Bruno Latour alludes to perhaps the most famous example in Western cultural imagination: the creature in Shelley’s *Frankenstein.* In his article, he discusses the importance of caring for our technological creations. In his words, “It is not the case that we have failed to care for Creation, but that we have failed to care for our technological creations. We confuse the monster for its creator and blame our sins against Nature upon our creations. But our sin is not that we created technologies but that we failed to love and care for them” (Latour). This is a sentiment that each of my chapters offering close textual analysis have been focusing on. As *Watchers*, *Borne*, and each of the previous texts demonstrate, it is ethically uncaring to focus solely on the abject, uncanny, frightening aspects of our technological creations. To do so ultimately allows us to forsake responsibility for our *own* doings and damages our chances of learning more about our creations, and even possibly lending a caring hand toward their growth and self-betterment.

Conclusion: Furthering Life and Caring Relations

Through my study of these contemporary science fiction texts from the primary lens of animal care ethics, I intended to achieve a deeper and nuanced understanding of the complex interplay between technology, human inclinations and motivations, and nonhuman animal bodies and identities, as well as the current cultural environment that is shaped both by recent advances in biotechnology and discourses that mark certain lives as worthy or unworthy of ethical consideration. In selecting contemporary texts that span from the late 1980s to the late 2010s, my intention was to offer a clearer understanding of the developing posthuman turn that is being shaped both by a close engagement with advanced biotechnologies and the ever-increasing threat of animal exploitation. Furthermore, the preoccupation these narratives have with the impact of biotechnology on nonhuman bodies as well as the influence of caring responses positions them within a category of science fiction that aims to offer a glimpse of hope for the future, instead of fully subscribing to a narrative of doom and despair. Care ethics, and the various ways authors/creators imply engagements with care, are methods in reorienting the reader towards a sharper sense of human awareness and responsibility, and to cultivate an understanding of the often-overlooked complexity that comes with any considerations of the ethical treatment of biotech animals. Likewise, it is also a means to reinscribe the human in a way that is biologically, technologically, and environmentally embedded within interspecies connections.

Throughout my dissertation, my goal was to argue for the power that literary works can contain to open our minds to what care, and a lack thereof, toward biotech animals can look like. My project's overarching argument is that the genre of science fiction has the capacity to allow audiences to dive deeper into their considerations of what caring connections between humans and animals could look like if humanity were to both acknowledge and accept their overall

responsibility and duty toward their creations. Furthermore, there is a clear preoccupation in my primary texts not only with care responses, but with discussions of disposable bodies and the impacts of biocapitalism on our understanding of human and nonhuman life. With this argument, there were a few key questions that propelled my project. Is an acknowledgement of human responsibility and duty enough to cultivate a care and/or a posthumanist relation? What does, or can, posthumanist care look like? How do these core texts depict, in various ways, processes that do not suggest a caring frame? In what scenarios are they complicated?

My analytical chapters centred on different discussions to try and address these questions. First, I engaged with this concept of biocapitalism and disposable bodies in the first chapter, focusing on Atwood's *MaddAddam* trilogy and Joon-ho's film *Okja*. I considered the impact of care and the lack thereof in conversation with biocapitalism and disposable bodies by focusing on the survival and flourishing of the biotech animal, and the scenarios where specific animals are granted, or not granted, such privileges. What I later found was that this discussion of the influence of biocapitalism and of the enforcement of bodies that are considered disposable also affects how we consider a biotech animal's autonomy. In the second chapter, I discussed this idea by looking at depictions of cyborg animals created for warfare in Bakis's *Lives of the Monster Dogs* and Morrison and Quietly's *We3*. The texts show how the biotech animal's own complicated sense of their altered body influences their sense of identity and autonomy. I chose to look at cyborg animals created for warfare to demonstrate how discussions of autonomy are especially important when the animal is produced and forced to engage in violence. These texts allow us to consider who can truly be faulted for the violence carried out by the cyborg animals. In the third chapter, I offered a discussion of the role empathy and sympathetic imagination plays in our consideration of care, focusing on Pat Murphy's novelette "Rachel in Love" and Emma

Geen's novel *The Many Selves of Katherine North.* Both texts feature human minds entering animal bodies. I considered what caring, imaginative attempts to see through the animal's eyes may look like and argued that such engagements can stir us to re-evaluate how we use them as tools in entertainment, extending human life, and other forms of research. My final analytical chapter considered the power that language and evaluative/hierarchal discourses have in shaping how we view others and how they view themselves. I examined Koontz's *Watchers* and Vandermeer's *Borne* to draw our attention to two binary categories of grouping a biotech animal into: a person, or a monster. Both novels challenge the stability of both categories, also suggesting that care should be thoughtfully examined and re-examined when considering the long-lasting impact of our cultural discourses and how we use them to either favour or make an "Other" of different beings. Thus, an argument can be made that what matters more than subscribing to culturally constructed labels that are meant to divide is understanding that even biotech animals are not fixed, molar identities, with no individual potential for growth.

Before I draw my project to a close, let us return to a key question that propelled my research, wondering whether such an acknowledgment of human duty and responsibility is enough to cultivate care. How do the texts either suggest this or challenge this? As I reach the end of my project, I would argue that an acknowledgement comes close to fostering care when it is accompanied by a willingness to think of the biotech animal's potentials for survival and flourishing (as discussed in Chapter 1) and their bodily autonomy (as discussed in Chapter 2). I would also argue that an important element in cultivating care is an open and empathetic imagination, where the human considers what it would be to like to step into the shoes of an animal (as discussed in Chapter 3) and an appropriate attention given to the power and influence of language and evaluative cultural discourses (as discussed in Chapter 4). Yet, let us take this a

step further. A key element of my argument is a need to be attentive to the reality of biotech animals and their connection to sentience. As can be seen in my chapters, many of the biotech animals are in fact sentient, or are representative of animals that are (such as the ResExtendas in Geen's novel). To recall, sentience can be understood as "the capacity of an individual organism to sense and feel things and to have subjective experiences of those sensations and feelings" (Calarco 121). The authors of these texts suggest that humanity's motivation to care for a biotech animal should be prompted by an acknowledgement of their sentience.

Each of my core texts demonstrate biotech animals with their own preferences that cause them pleasure and joys, as well as their own capacities for fear and pain. Upon first thought, we may be inclined to say that Geen's novel, *The Many Selves of Katherine North*, is an exception here. Yet, with Geen's novel, while the ResExtenda bodies lack a fully formed brain and arguably do not carry a subject within the body (before a human mind enters it), what must be remembered is the ResExtenda bodies *represent* sentient animals and are used in research in the environment alongside sentience animals. What, then, is the importance of sentience? The goal of my project was not to make an overall argument that the core texts are suggesting that *all* life forms matter in the sphere of ethical consideration, or that they deserve care, or, to put it more colloquially, that all life forms deserve rights. Rather, what has been at the heart of my dissertation is that if we can understand by reading these texts that many forms of biotech animals, despite their close intermingling with technology, are still sentient beings capable of pleasure, flourishing, bodily pain and emotional distress, then these texts are suggesting that it is our responsibility, as the creators of the animals and as the species in power, to pay attention to and care about how our actions may affect the animal. If we can recognize the sentience that still

exists within a modified or engineered animal, we should thus be able to understand our shared connections regarding corporeality, vulnerability, and mental and physical transformation.

This topic of sentience then, opens fields of further enquiry. Where do we draw the line when it comes to what forms of life are deserving of care? As mentioned in the Introduction, the human understanding of life continues to be affected, in scientific circles, by changing practices and developments in studies in the biosciences. In the words of Nadine Ehler, "life is open for transformation and revisioning" (120), which is most evidently seen in how biotechnology has allowed for life to seen through a molecular lens and altered at the molecular level. Yet, we also see how life is open for transformation and revisioning when we recognize how the category of life is becoming unstable. What it means to have a life, or who possesses a life, has become a contested idea. Commonly, a life is understood as that belonging to a being, and their existence. It is also understood as the condition distinguishing animals and plants from inorganic matter. In other words, a rabbit and a tulip possess a life, but a stone does not. On the other hand, bacteria and viruses are organic matter, yet bacteria are commonly understood in biology as a living organism, while viruses are not. This discussion of re-evaluating life is often a key point in consideration in many fields belonging within the "nonhuman turn" that has been occurring in cultural theory over the past decades. Some of these fields include posthumanism (with scholars such as Braidotti, Hayles, Nayar), animal studies (Derrida, Haraway, Wolfe), and object-oriented ontology (Bruno Latour, Timothy Morton). While my project does not, in detail, engage with the latter of these fields, all of these discursive cultural developments require an awareness and acceptance of humans as interdependent and embodied beings and an acknowledgement of their relationality and vulnerability. With these acknowledgments, it is hard to neglect or escape the idea of life.

What does it mean to re-evaluate the limits when we think about life and lifeforms? Is it worth doing so? Is the possession of a life what is really required for caring responses, or is it something else? In the conclusion of Amelia DeFalco's *Curious Kin in Fictions of Posthuman Care*, she considers what it would mean to test the limits of posthumanist care beyond biological vitality to consider non-life/nonliving "existents" (160). For example, she examines Louis Erdrich's short story "The Stone", which looks at a sustaining human-mineral connection. DeFalco argues that the story imagines care beyond biocentric life. In the story, the protagonist finds comfort in a stone, a nonliving entity, which ends up being her lifelong companion. As the story's narrator explains, "A stone is, in its own way, a living thing, not a biological being but one with a history far beyond our capacity to understand or even imagine" (Erdrich). The narrator then goes on to describe the stone's formation and composition, but also notes that these details "sa[y] nothing" of its being and experience (DeFalco 165). My main goal here is not to go into depth regarding what the being and experience of a nonliving entity is like; rather, my point here is to suggest the possibility that they may still contain being and experience. The protagonist in the story also seems to be aware of this. As DeFalco observes, the protagonist cares for the stone and the stone, even if indirectly or latently, comforts her: "Just as the stone consoles her, so too does she care for it, oiling it when it looks dry and carrying it to the window 'when [it] looked bored' (Erdrich). Eventually she dies as she has lived, with the stone by her side. DeFalco ultimately argues that it is worth considering "inorganic forms of animacy and agency that facilitate a more-than-human intimacy" (DeFalco 25).

Yet can we apply this same line of thinking to microbial entities? What does it mean to consider microbial "rights"? As mentioned earlier, bacteria are considered alive, precisely because they contain their own cells. In contrast, viruses occupy a special taxonomic category.

While there are some debates on this matter, they are generally accepted as nonliving entities because they do not have cells. In fact, they cannot reproduce and continue metabolic processes without a host cell. Nonetheless, if we can open our minds to idea that a stone is "in its own way, a living thing", can we apply this same line of thinking to a virus? Is there a value – or a danger – in doing so? As a further field of inquiry, it is perhaps also worth considering how my project on biotech animals, discussed in an (arguably) post COVID-19 world, is affected by our understanding of corona viruses. COVID-19 is considered by many to be a natural zoonotic disease[32], which is when an infectious disease has been known to directly transfer from a nonhuman animal to humans. While I personally do not side with the COVID-19 creation theory that believes the disease was created in a laboratory in China, the corona virus is subjected to biotechnological practices in a laboratory alongside the creation of vaccines to eradicate it. On this rudimentary scale, we could argue that the treatment of COVID-19 is comparable to the treatment of biotech animals in a laboratory setting. However, such a statement also opens up an important consideration of *degree*. If we discuss and even accept the idea of "nurturing" a stone, can we apply this as well to a virus? Does an encouragement of an ethic of care toward biotech animals suggest the same toward other biotech or quasi-biotech "lifeforms"? Charles S. Cockell draws attention to the fact that questioning whether microbial organisms have any place in our systems of ethics or whether they should have any moral claims on us beyond their instrumental value is not a new one. He points out how microbiologist Bernard Dixon, in 1976, questioned whether the attempts of the World Health Organization to eradicate the smallpox virus to extinction was ethical.

[32] Much evidence suggests that the virus was originally harbored by bats, and spread to humans from infected wild animals at the Huanan Seafood Market in Wuhan, China.

As I have discussed throughout my project, these biotech animals, being sentient living creatures, have their own interests. This suggests that they have intrinsic value beyond the value they provide to humans as instruments of use. Cockell explains that to seriously consider microbial rights, one will have to wonder if they have intrinsic value beyond practical uses. If the answer is "no,' the argument would be that it is unnecessary to feel guilt over driving microbes to extinction for our benefit. Since a microbe has no thought processes or ability to make thoughts toward the future (to our knowledge), it is safe to say that a microbe does not have interests, or at the least, the type of interests that we have accepted as being of "sufficient scope to place demands on our treatment of other human beings, for instance" (Cockell 181). Yet, does a stone have interests, and is thus worthy of care? Are we as uncomfortable with that question in comparison to if we were to ask that of an infectious virus?

In my discussion of biotech animals, I have drawn on textual examples that suggest that the category of animal cannot ignore the ones that are biotechnologically altered. For example, the cyborg dog, cat, and rabbit in *We3* are still members of those species. Likewise, many of my texts have also shown how the categories or animal and human become blurred, with demonstrations of animal-human hybridity (such as, for example, the Crakers in Atwood's trilogy, and Rachel from "Rachel in Love"). While it is important and valuable to challenge our cultural notions of how we classify certain groups or methods of understanding (human, animal, life), I would argue that the texts also suggest that we should also make sure *not* to erase or dismiss differences and levels of degree. A stone you can hold in your palm will likely not carry the same weight of widespread danger in comparison to a deadly virus. While we know humans are sentient and there is enough evidence to suggest biotech animals are, we cannot say the same for minerals or microbes. With this in mind, it is clear and safe to say that the needs of human

and nonhuman animals will trump those of microbes, at some level. In the words of Cockell, "if they did not, we could not use bleach in our houses, an absurd end-point raised in a 1970s science fiction story ["Legal Rights for Germs?"] that explored the futuristic ramifications of full microbial rights, in which household bleaches and deodorants are banned" (181). However, after making this point Cockell also raises a fair counterargument: "although it might be true that phages kill a large percentage of the bacterial population of the world every few days, as Julian Davies points out, human society has achieved an unprecedented capacity for destruction and creation" (181). And so, an exploration of posthumanist care and how it is explored in science fiction may also lend itself well to further areas of research.

Where, exactly, can the line be drawn when it comes to practising care toward lifeforms? Is there a line? As implied earlier, we may be less inclined to want to care for nonliving entities, especially those that are harmful such as infectious viruses. A key part of my argument is that the possession of sentience is a highly important factor in our ethical considerations. However, if we recall the ending of Vandermeer's *Borne*, Rachel is taking care of a plant-like entity that she believes to be Borne. There are still many debates today as to whether plants are sentient. Yet, this does not stop her desire to care for it. She also notes that if this plant-like entity starts developing again like Borne originally did, showing animal (and, thus, sentient) traits, she will allow Wick to take him apart. The fair counterargument here, when considering this ending, is that sentience may not be enough, which reasonably opens further avenues of thought regarding if we can go beyond sentience to consider posthumanist care.

While such a question, of course, goes beyond the scope of my project, I would like us to consider the idea of making something *killable*. As Haraway notes in *When Species Meet*, it is not the command "Thou shalt not kill" that we should prioritize, but "Thou shalt not make

killable": "There is no category that makes killing innocent; there is no category or strategy that removes one from killing. Killing sentient animals is killing someone, not something; knowing this is not the end but the beginning of serious accountability inside worldly complexities" (106). What this statement suggests is that our killing practices can exist without an accompaniment of a destructive, harmful mindset that purposely reduces the animal to being killable – in other words, seeing the animal as meant to be killed. The mindset of the subject doing the killing should always be aware of the damage that killing creates and still be mindful of the animal's origins as a living being. A further inquiry of this idea could also question what it means to apply this mindfulness to other nonhuman lifeforms as well.

In the words of Defalco, "Entanglement is a description of worldly existence, rather than a prescription for ethical relations. It can produce both harms and care" (*Curious Kin* 170). In other words, it is up to us how we decide to approach this entanglement with nonhuman entities. Our entanglement and shared vulnerability should make posthumanist care fundamental for our wordly relations, but this does mean it is inevitable. To care, and to think and act with a posthumanist mindset, is ultimately a choice. Yet, as DeFalco draws to our attention, "more-than-human care is difficult to recognize or narrate" (170). Nonetheless, this difficulty does not mean we should neglect its essentiality. As I have sought to show throughout this project, it is hard to argue for a "one size fits all" approach when it comes to thinking about care ethics. This is because care will always be dependent on the particularities of the subjects involved, thus making care context-specific and situational. However, science fiction demonstrates that such subjects do not need to be fully animal, fully human, or fully machine, in a conventional sense, for care to be worthy of consideration. The genre helps draw to light that care will always require "vigilance and reflexivity" (DeFalco 172).

And so, why care about ethical considerations when reading literature about animals? As I briefly mentioned in the Introduction chapter, it is concerning not to care about ethics, especially when it comes down to our own understanding of what it means to act with humanity, when we, the species in power, directly affect the lives of nonhuman animals. To consider this question further, I turn to Erica Fudge and her discussion on how to properly read animals in literature: "... there is, perhaps, a question which faces all of us who are working on animals in the Humanities, whatever our disciplinary context. That question is why do we write about animals? For me … this question cannot be separated from a further question: what can our work do to change current perceptions about animals" ("Reading Animals" 101). While Phillip Armstrong acknowledges that many written works about animals may not have an explicit ethical intervention to make, it is "often where such interventions are made … that the work becomes really exciting" (102). Once we acknowledge that many works of literature that focus on animals are going to take up (whether explicitly or implicitly) an ethical position on animals, we then cannot ignore the question of the importance of this ethical position. In other words, we must also ask what reading such texts that represent animals "add to existing ethical debates" (102).

To conclude, a key reason why I chose to focus on narratives that offer hope rather than ones that solely offer a message of finality and doom, is because it is hard to not feel immobilized when our visions for the future are void of any imaginings of hope for a positive change. It is easy to not feel motivated to think about ethics when we firmly do not believe the future has any hope to begin with. As Atwood once said, in a conversation with Jane Goodall, "...if we're hopeful, that may generate more hope and actually inspire people to take action. People who say we're doomed—I'm just not interested in that. It doesn't generate any sort of

positive activity" (HarperBaazar 2022). While these words were said in relation to the sixth great extinction, and not specifically our treatment of biotech animals, these discussions are similar since it comes down to human activity and human choices. And so, while each of my core texts offer complexity and may, depending on one's reading, also be implying that the future does not look promising, my overall takeaway is that these texts also encourage us to think about the potentialities if we choose to be (in Atwood's words) *hopeful*. After all, without hope it is not only difficult to want to care, but also difficult to properly reflect on a posthumanist ethics that recognizes our shared vulnerability and our embedded relationships with nonhuman animals and keeps this in mind when considering our rapidly evolving relationship with biotechnology.

Bibliography

Acampora, Ralph. *Corporal Compassion: Animal Ethics and Philosophy of Body*. University of Pittsburg Press, 2006.

Acquier, Aurélien, and Alf Rehn. "Okja (2017)", *Management*, vol. 22, no. 3, 2019, pp. 517-536.

Adams, Carol J., and Josephine Donovan. "Introduction." *The Feminist Care Tradition in Animal Ethics.* Ed. Carol Adams and Josephine Donovan. Columbia University Press, 2007.

Agamben, Giorgio. *Homo Sacer: Sovereign Power and Bare Life*. Stanford University Press, 2004.

Ahmed, Sara and Jackie Stacey. "Introduction: Dermographics." *Thinking through the Skin*. Ed. Sara Ahmed and Jackie Stacey. Routledge, 2001. 1–18.

"'A Leap of Faith': FDA Just Approved the First Pig-to-Human Tissue Transplant." *Advisory Board.* https://www.advisory.com/Daily-Briefing/2019/11/18/pig-transplant. Accessed 2 Nov. 2021.

"animal, n." *OED Online*, Oxford University Press, www.oed.com/view/Entry/273779. Accessed June 1, 2021.

Anders, A. (2013). "Foucault and 'the Right to Life': from Technologies of Normalization to Societies of Control". *Disability Studies Quarterly*.

Anthes, Emily. *Frankenstein's Cat: Cuddling Up to Biotech's Brave New Beasts.* Oneworld Publications, 2013.

Armstrong, Phillip. *What Animals Mean in the Fiction of Modernity*. Routledge, 2008.

Atwood, Margaret. *Curious Pursuits: Occasional Writing*. Little Brown Book Group, 2009.

Atwood, Margaret. *In Other Worlds: SF and the Human Imagination.* Little, Brown Book Group, 2011.

Atwood, Margaret. *MaddAddam*. Knopf Canada, 2014.

Atwood, Margaret. *Oryx and Crake*. Knopf Doubleday Publishing, 2004.

Atwood, Margaret. *The Year of the Flood*. Knopf Canada, 2010.

Badmington, Neil. "Posthumanism." *The Routledge Companion to Literature and Science*, ed. Bruce Clarke & Manuela Rossini. London and New York, NY: Routledge, 2011. 374–384.

Baker, Steve. "Philosophy in the wild?" *The Eighth Day: The Transgenic Art of Eduardo Kac*. Ed. S. Britton and D. Collins. Institute for Studies in the Arts, 2003, pp. 27- 38.

Bakis, Kirstin. *Lives of the Monster Dogs*. Farrar, Straus and Girroux, 2017.

Baelo-Allue Sonia, and Monica Calvo-Pascual. *Transhumanism and Posthumanism in Twenty-First Century Narrative*. Routledge, 2021.

Baudrillard, Jean. *Impossible Exchange.* Verso Books, 2012.

"BBC Panel Aims to Spark Debate on the Novels That Shaped Our World with the Reveal of Their 100 Page-Turners." *BBC*. https://www.bbc.co.uk/mediacentre/latestnews/2019/bbc.com/mediacentre/latestnews/2019/100-novels/. Accessed 2 Nov. 2021.

Bender, Leslie. "A Feminist Analysis of Physician-Assisted Dying and Voluntary Active Euthanasia." *Tennessee Law Review*, 1991.

Berland, Jody. "Cat and Mouse: Iconographies of Nature and Desire." *Cultural Studies*, Volume 22. Routledge, 2008.

Berger, John. "Why Look at Animals?" *About Looking*. Bloomsbury, 2015.

Bianchi, Melissa. "The 'GUD' and the 'BAD' and the Biorg: Reading the Postanimal in We3." *EcoComix: Essays on the Environment in Comics and Graphic Novels.* Ed. Sidney I. Dobrin. McFarland and Company, 2020. Kindle edition.

Birke, Lynda. "Into the Laboratory." *The Animals Reader: The Essential Classic and Contemporary Writings.* Eds. Kalof, Linda and Amy Fitzgerald. Berg, 2007.

Booth Magnone, Sophia. "The Speculative Agency of the Nonhuman: Animal, Object, and Posthuman Worldings." A dissertation submitted to *ProQuest*, 2016.

Borrell, Sally. *Challenging humanism: human-animal relations in recent postcolonial novels.* PhD thesis, Middlesex University, 2009.

Braidotti, Rosi. *The Posthuman*. John Wiley & Sons, 2013.

Braidotti, Rosi. "Transposing Life", *Clones, Fakes and Posthumans: Cultures of Replication*. ed. Philomena Essed and Gabriele Schwab. Brill, 2015. 61-78.

Branch, Legislative Services. *Consolidated Federal Laws of Canada*, Assisted Human Reproduction Act. 9 June 2020, https://laws-lois.justice.gc.ca/eng/acts/a-13.4/page-1.html#h-6052.

Bulgakov, Mikhail. *Heart of a Dog.* Harcourt Press, 1925.

Butler, Judith. *Frames of War: When is Life Grievable?* Verso Books, 2016.

Butler, Judith. *Precarious Life: The Powers of Mourning and Violence*. Verso Books, 2006.

Calarco, Matthew. *Animal Studies: The Key Concepts*. Routledge, 2020.

Carew, Anthony. "Generic Interventions: Tropes and Topicality in the Films of Bong Joon-ho."

Metro Magazine. Issue 194, 2017.

Cartwright, Lisa & Marita Sturken. *Practices of Looking: An Introduction to Visual Culture.* Oxford University Press, 2009.

CCAC training module on: genetically-engineered farm animals, Companion Notes. Canadian Counsel on Animal Care. https://ccac.ca/Documents/Education/Modules/Farm-animals/Genetically_engineered/Companion-notes.pdf

Cervone, Skye. "Living Capital: Situating Animals within Capitalist Modes of Production in Science Fiction." A dissertation submitted to *ProQuest,* 2019.

Chakraborty, Sanjukta. "The Position of Women in Science Fiction." *Journal of Language and Linguistic Studies*, 18(2), 2022. Pg. 930-939.

Cheney, Jim. "Postmodern Environmental Ethics: Ethics as Bioregional Narrative", *Environmental Ethics* 11, 1989. 17-34.

Clement, Grace. *Care, Autonomy, and Justice: Feminism and the Ethic of Care.* Routledge, 1996.

Clement, Grace. "The Ethic of Care and the Problem of Wild Animals." *The Feminist Care Tradition in Animal Ethics*. Columbia University Press, 2007.

Cockell, Charles S. "Microbial rights?." *EMBO reports* vol. 12,3, 2011: 181. doi:10.1038/embor.2011.13

Coetzee, J.M. *The Lives of Animals.* Princeton University Press, 2016.

Cohen, Jeffrey Jerome. "Monster Culture (7 Theses)." *Monster Theory: Reading Culture*.

University of Minnesota Press, 1996.

Colebrook, Claire. *Death of the PostHuman: Essays on Extinction*. Open Humanities Press, 2015.

"compassion, n." *OED Online*, Oxford University Press, www.oed.com/view/Entry/37475. Accessed June 1, 2021.

Corbey, Raymond and Annette Lanjouw, eds. *The Politics of Species: Reshaping our Relationships with Other Animals.* Cambridge University Press, 2015.

Creed, Barbara. "Animal Deaths on Screen." *Relations*. 2.1, 2014.

Darling, Kate. "Why we have an emotional connection to robots." *TED,* 2019, https://www.ted.com/talks/kate_darling_why_we_have_an_emotional_connection_to_robots/transcript?language=en.

Deckha, Maneesha. *Animals as Legal Beings: Contesting Anthropocentric Legal Orders*. University of Toronto Press, 2020.

DeCook, Julia R. "A [White] Cyborg's Manifesto: the overwhelmingly Western ideology driving technofeminist theory." *Media, Culture, and Society.* Sage Pub, 2020.

DeFalco, Amelia. *Curious Kin in Fictions of Posthuman Care*. Oxford University Press, 2023.

DeFalco, Amelia. "MaddAddam, Biocapitalism, and Affective Things." *Contemporary Women's Writing*, Vol. 11, Issue. 3, 2017. 432-451.

DeKoven, Marianne. "Guest Panel: Why Animals Now?' *PMLA*, Vol. 124, No. 2 (March 2009), pp. 487-495.

Derrida, Jacques. *The Animal that Therefore I Am*. Ed. Mallet, Marie-Luise. Fordham University Press, 2008.

Descartes, Rene. *Discourse on the Method of Rightly Conducting the Reason, and Seeking Truth in the Sciences.* The Project Gutenberg. Retrieved May 2, 2020, from www.gutenberg.org/files/59/59-h/59-h.htm

Dick, Philip K. *Do Androids Dream of Electric Sheep?* Orion Books, 1999.

Donovan, Josephine. "Attention to Suffering: Sympathy as a Basis for Ethical Treatment of Animals." *The Feminist Care Tradition in Animal Ethics.* Ed. Carol Adams and Josephine Donovan. Columbia University Press, 2007.

Donovan, Josephine. *The Aesthetics of Care: On the Literary Treatment of Animals*. Bloomsbury Academic, 2016.

Dunayer, Joan. "Sexist Words, Speciesist Roots." *Animals and Women: Feminist Theoretical Explorations.* Ed. Adams, Carol J., and Josephine Donovan. Duke University Press, 1999.

Duval, Gordon. "Assisted Suicide and the Notion of Autonomy." *Ottawa Law Review,* Vol 27:1, 1995.

Ehlers, Nadine. "Life 'Itself'". *After the Human: Culture, Theory, and Criticism in the 21st Century.* Ed. Sherryl Vint. Cambridge University Press, 2020.

Engster, Daniel. "Care Ethics and Animal Welfare." *Journal of Social Philosophy*, Vo. 37, No.4, 2006. 521-536.

Erdrich, Louise. "The Stone", *The New Yorker*, 2019.

Faustino, João Vicente. "The Point of View of the Animal: An Ontology and Ethics of Alterity in Emma Geen's *The Many Selves of Katherine North*." *Colloquy: Text, Theory, Critique* 35/36. 2018. Pg. 54–81.

Felix Pets, LLC. http://felixpets.com/.

Ferreira, Aline. "Primate Tales: Interspecies Pregnancy and Chimerical Beings." *Science Fiction Studies,* Vol. 35, No. 2, On Animals and Science Fiction, 2008, pp. 223-237

Fisher, John A. "Taking Sympathy Seriously: A Defence of Our Moral Psychology Towards Animals." *Environmental Ethics*, vol 9, fall 1987.

Foucault, Michel. *The History of Sexuality, Volume 1: An Introduction.* Vintage Books, 1990.

Foucault, Michel. "The Subject and Power." *Critical Inquiry* , Summer, 1982, Vol. 8, No. 4. University of Chicago Press Journals, 1982. pp. 777-795

Foucault, Michel. "Society Must Be Defended: Lecture at the College de France, March 17th, 1976". *Biopolitics: A Reader*. Ed. Timothy Campbell and Adam Sitze. Duke University Press, 2013.

Fox, M.W. "Empathy, Humaneness, and Animal Welfare". *Advances in Animal Welfare Science.* The Humane Society of the United States, 1984.

Fudge, Erica. *Animal.* Reaktion, 2002.

Fudge, Erica. "Introduction to Special Edition: Reading Animals", *Worldviews.,* Vol 4., No. 2. Brill, 2000.

Fudge, Erica. *Pets*. Routledge, 2008.

Fukayama, Francis. *Our Posthuman Future: Consequences of the Biotechnology Revolution.* Farrar, Straus, and Giroux, 2002.

Funk, Cary and Meg Hefferon. 'Most Americans Accept Genetic Engineering of Animals That Benefits Human Health, but Many Oppose Other Uses'. *Pew Research Center Science &*

Society, 16 Aug. 2018, https://www.pewresearch.org/science/2018/08/16/most-americans-accept-genetic-engineering-of-animals-that-benefits-human-health-but-many-oppose-other-uses/.

Galbreath, Marcy. 'Genomic Bodies: Un-Natural Selection, Extinction, and the Posthuman in Atwood's *Oryx and Crake*.' Conference paper. 'Zoontotechnics (Animality/Technicity).' Cardiff. May 12–14, 2010. Web. Accessed December 12, 2021. <https://www.academia.edu/238034/Genomic_Bodies_UnNatural_Selection_Extinction_and_the_Posthuman_in_Atwoods_Oryx_and_Crake>.

Gallagher, James. "GM Mosquitoes Offer Malaria Hope". BBC News, 20 Apr. 2011. www.bbc.com, https://www.bbc.com/news/health-13128327.

Geen, Emma. *The Many Selves of Katherine North*. Bloomsbury Publishing, 2016.

Gilligan, Carol. *In a Different Voice: Psychological Theory and Women's Development.* Harvard University Press, 1982.

Gilbey, Ryan. "Okja director Bong Joon-ho: 'In films, animals are either soulmates or butchered". *The Guardian.* 2017.

Gordon, Joan. "Animal Studies." *The Routledge Companion to Science Fiction.* Eds. Mark Bould, Andrew M. Butler, Adam Roberts, and Sherryl Vint. Routledge, 2009.

Gorley, Sam. "Entangled care and the trouble with making family in *Borne*." *Surreal Entanglements: Essays on Jeff Vandermeer's Fiction*. Ed. Louise Economides and Laura Shackelford. Routledge, 2021.

Graham, Elaine L. *Representations of the Post/human: Monsters, Aliens, and Others in Popular*

Culture. Rutgers UP, 2002.

Grauerholz, Liz & Nicole Owens. "Interspecies Parenting: How Pet Parents Construct Their Roles." *Humanity and Society*, 2018.

Grimshaw, Jean. *Philosophy and Feminist Thinking*. Minneapolis, University of Minnesota Press, 1986.

Gruen, Lori. *Ethics and Animals: An Introduction.* Cambridge University Press, 2011.

Gruen, Lori. *Entangled Empathy: An Alternative Ethic for Our Relationships with Animals.* Lantern Books, 2015. Ebook.

Gunawan, Michelle. "Navigating human and non-human animal relations: *Okja*, Foucault and animal welfare laws." *Alternative Law Journal*, 0(0), 2018, pg. 1-6.

Hamner, Everett. *Editing the Soul: Science and Fiction in the Genome Age*. The Pennsylvania State University Press, 2017. Ebook.

Haran, Joan. "Simians, Cyborgs, and Women." *Daughters of Earth: Feminist Science Fiction in the Twentieth Century.* Ed. Justine Larbalestier. Wesleyan University Press, 2006.

Haraway, Donna. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Prickly Paradigm, 2003.

Haraway, Donna J. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in Late Twentieth-Century". *Simians, Cyborgs, and Women: The Reinvention of Nature.* Routledge, 1991.

Haraway, Donna. *When Species Meet*. University of Minnesota Press, 2008.

Hare, Breanna. “Cyborg bugs and glow-in-the-dark cats: How we’re engineering animals.” *CNN,* 2013,https://www.cnn.com/2013/03/29/tech/innovation/biotech-animals-emily-anthes/index.html

Harfeld, Jes Lynning. “Telos and the Ethics of Animal Farming.” *Journal of Agricultural and Environmental Ethics,* 2013.

Hauskeller, Michael. “How to Become a Post-dog: Animals in Transhumanism.” *Between the Species,* Volume 20, Issue 1, 2017.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics.* University of Chicago Press, 1999.

Heeger, Robert and Bart Rutgers. “Inherent Worth and Respect for Animal Integrity.” *Recognizing the Intrinsic Value of Animals: Beyond Animal Welfare*. Ed. Marcel Dol. Van Gorcum,1999 41-52.

Heeger, Robert and Frans W.A. Brom. “Intrinsic Value and Direct Duties: from Animal Ethics towards Environmental Ethics.” *Journal of Agricultural and Environmental Ethics,* 14. 2001. 241-252.

Heidegger: The Question Concerning Technology. http://www.english.hawaii.edu/criticalink/heidegger/guide5.html. Accessed 2 Nov. 2021.

Heise, Ursula. “From Extinction to Electronics: Dead Frogs, Live Dinosaurs, and Electric Sheep.” *Zoontologies: the Question of the Animal.* Ed. Cary Wolfe. University of Minnesota Press, 2003.

Held, Virginia. *The Ethics of Care: Personal, Political, Global.* Oxford University Press, 2006.

Helmreich, Stefan. "Species of Biocapital," *Science as Culture* 17(4): 463–478.

Herzog, Hal. *Some We Love, Some We Hate, Some We Eat: Why it's So Hard to Think Straight About Animals.* Harper Collins, 2010.

Holler, Linda. *Erotic Morality: The Role of Touch in Moral Agency*. Rutgers University Press, 2002.

Hollinger, Veronica. "Posthumanism and Cyborg Theory." *The Routledge Companion to Science Fiction.* Eds. Mark Bould, Andrew M. Butler, Adam Roberts, and Sherryl Vint. Routledge, 2009.

'Home'. *XenoTx.org*, https://www.xenotx.org. Accessed 2 Nov. 2021.

Hudson, Laura. "A Species of Thought: Bare Life and Animal Being." *Antipode*, volume 43, no. 5, 2011. 1659-78.

"Humai | LinkedIn." *LinkedIn*, https://www.linkedin.com/company/humai.

Human Reproductive Cloning Act 2001. https://www.legislation.gov.uk/ukpga/2001/23/enacted. Accessed 2 Nov. 2021.

Hutson, John P., et al. "What is the role of the film viewer? The effects of narrative comprehension and viewing task on gaze control in film." *Cognitive Research: Principles and Implications.* 46, 2017.

Ingold, Tim. *What is an Animal?* Routledge, 1998.

Joon-ho, Bong. *Okja*. Plan B Entertainment, 2017. Netflix.

Jr. Engel, Mylan. “The Commonsense Case Against Animal Experimentation.” *The Animal Ethics Reader*. Eds. Susan J. Armstrong, and Richard G. Botzler. Taylor & Francis, 2016.

Kac, Eduardo. “GFP Bunny”. Ekac.org, 2000, http://www.ekac.org/gfpbunny.html#gfpbunnyanchor

Keen, Suzanne. *Empathy and the Novel.* Oxford University Press, 2007.

Keulartz, Jozef & Jac. A.A. Swart. “Animal Flourishing and Capabilities in an Era of Global Change.” *Ethical Adaptation to Climate Change: Human Virtues of the Future.* Eds. Allen Thompson and Jeremy Bendik-Keymer. MIT Press, 2012. 123-44.

Koontz, Dean. *Watchers.* Penguin, 2008.

Latour, Bruno. “Love Your Monsters: Why We Must Care for Our Technologies As We Do Our Children.” *The Breakthrough Institute*. 2012.

Lawrence, David R. “The Edge of Human? The Problem with the Posthuman as the ‘Beyond’”. *Bioethics,* Volume 00, Number 00, 2016.

“Legal Recognition for Non-Human Relations.” Peter A. Allard School of Law, https://allard.ubc.ca/research/research-centres-and-programs/centre-law-and-environment/projects/legal-recognition-non-human-relations#:~:text=The%20legal%20systems%20of%20most,be%20exploited%20for%20human%20enjoyment.

Malamud, Randy. *An Introduction to Animals and Visual Culture*. Palgrave MacMillan, 2012.

McHugh, Susan. *Animal Stories: Narrating Across Species Lines.* University of Minnesota Press, 2011.

McHugh, Susan. “Literary Animal Agents.” *PMLA.* Vol. 124, No. 2 (March 2009), pp. 487-495.

McHugh, Susan, Robert McKay and John Miller. “Introduction.” *The Palgrave Handbook of Animals and Literature.* Ed. Susan McHugh, Robert McKay and John Miller. Palgrave Macmillan, 2018.

Midgley, Mary. “Beasts, Brutes, and Monsters.” *What is an Animal?* Ed. Ingold, Tim. Routledge, 1998.

Miletic, Philip. “The Biopolitical Animal: The Possibility of Posthumanist Ethics in Grant Morrison’s We3.” *International Journal of Comic Art*, Vol 15. No. 1, 2013.

Mitchell, W. J. T. “Forward: The Rights of Things.” *Animal Rites: American Culture, the Discourse of Species, and Posthumanist Theory.* Wolfe, Cary. University of Chicago Press, 2003.

Mohr, Dunja M. “The Missing Link: Bridging the Species Divide in Margaret Atwood’s MaddAddam trilogy.” *Canadian Science Fiction, Fantasy, and Horror: Bridging the Solitudes.* Eds. Amy J. Ransom and Dominick Grace. Springer International Publishing, 2019.

Morris, Jonathan. *The Ethics of Biotechnology.* Chelsea House Publishers, 2006.

Morrison, Grant and Frank Quitely. *We3*. DC, 2005.

Morton, Timothy. *Ecology Without Nature: Rethinking Environmental Aesthetics.* Harvard University Press, 2007.

Murphy, Pat. “Rachel in Love.” *Asimov’s Science Fiction*, 1987.

Nayar, Pramod. *Posthumanism.* Polity Press, 2014.

Nayar, Pramod. “To the Posthuman Born(e): The Post-natural World of Jeff VanderMeer.”

Journal of Posthumanism, vol 1, issue 1, 2021.

Neill, Alex. "Empathy and (Film) Fiction." *Post-Theory: Reconstructing Film Studies.* Ed. David Bordwell and Noel Carroll. University of Wisconsin Press, 1996.

Noddings, Nel. *Caring: A Relational Approach to Ethics and Moral Education.* University of California Press, 1986.

Nussbaum, Martha. *Frontiers of Justice: Disability, Nationality, Species Membership*. Harvard University Press, 2009.

Nussbaum, Martha. *Oxford Handbook of Animal Ethics,* Oxford University Press, 2011. 235-238.

Nussbaum, Martha. *Poetic Justice: The Literary Imagination and Public Life.* Beacan Press, 1997.

Nussbaum, Martha. *Not for Profit*: *Why Democracy Needs the Humanities*. Princeton University Press, 2010.

O'Connell, Sandija M. "Empathy in Chimpanzees: Evidence for Theory of Mind?" *Primates* (36) 3, 397-410. 1995.

Ormandy, Elisabeth H., et al. 'Genetic Engineering of Animals: Ethical Issues, Including Welfare Concerns'. *The Canadian Veterinary Journal*, vol. 52, no. 5, May 2011, pp. 544–50.

Parkinson, Claire. "Animal Bodies and Embodied Visuality", *Antennae: The Journal of Nature in Visual Culture,* Issue 46, 2018. 51-64.

Peters, Michael A., and Priya Venkatesan. "Biocapitalism and The Politics of Life", *Geopolitics, History, and International Relations,* 2010. 100-122.

Philipkoski, Kristen. "RIP: Alba, the Glowing Bunny." *Wired,* 2002,

https://www.wired.com/2002/08/rip-alba-the-glowing-bunny/.

'Pigs Are the Latest GMO Animal Approved by the FDA'. PigProgress, https://www.pigprogress.net/Health/Articles/2020/12/Pigs-are-the-latest-GMO-animal-approved-by-the-FDA-688269E/. Accessed 2 Nov. 20

Portillo, Isabel Jaén. "From body to world: empathy and the transformative power of cinematic imagination." *Frontiers in Human Neuroscience.* Volume 18, 2024.

Puig de la Bellacasa, Marina. *Matters of Care: Speculative Ethics in More Than Human Worlds*. University of Minnesota Press, 2017.

Regan, Thomas. *The Case for Animal Rights.* University of California Press, 1983.

Roach, T. J. *Sense and Sexuality: Foucault, Wojnarowicz, and Biopower*. Nebula. 6 (3), 2009.

Robertson, Benjamin J. *None of This Is Normal: The Fiction of Jeff VanderMeer*. University of Minnesota Press, 2018.

Rogers, Lesley J., and Kaplan, Gisela. "All animals are not equal: The interface between scientific knowledge and legislation for animal rights." *Animal rights: Current debates and new directions* Eds. Cass Susstein and Martha Nussbaum. Oxford University Press. 2004.

Rollin, Bernard. *Animal Rights and Human Morality.* Prometheus Books, 2006.

Rollin, Bernard. "On Telos and Genetic Engineering." *The Animal Ethics Reader*. Eds. Susan J. Armstrong, and Richard G. Botzler. Taylor & Francis, 2016. 449-455.

Rose, Nicholas. *The Politics of Life Itself.* Princeton University Press, 2007.

Roy-Faderman, Ina. "The Alienation of Humans and Animals in Uplift Fiction." *Midwest Studies in Philosophy,* 2015.

Sanderson, Jay. “Pigoons, Rakunks and Crakers: Margaret Atwood's *Oryx and Crake* and Genetically Engineered Animals in a (Latourian) Hybrid World.” *Law and Humanities*, 7:2, 2013. 218-239.

Santhanam, Annika. “Humanly Inhuman: Transferring Consciousness to a Synthetic Body.” *Likeablestem*, 31 Oct. 2020, https://www.likeablestem.com/single-post/2020/06/20/humanly-inhuman-transferring-consciousness-to-a-synthetic-body.

Scholtmejer, Marian. *Animal Victims in Modern Fiction: From Sanctity to Sacrifice.* University of Toronto Press, 1993.

Seyfer, Tara. "What Are Chimeras and Hybrids?" Ethics and Medics 29.7 (Aug. 2004). March 30, 2008

Sasame, Kiyomi. “Food for Survival in Margaret Atwood’s Dystopian Worlds.” *The Japanese Journal of American Studies,* No. 21, 2010. 89-109.

Schatten, Gerald, and Shoukhrat Mitalipov. ‘DEVELOPMENTAL BIOLOGY: Transgenic Primate Offspring’. *Nature*, vol. 459, no. 7246, May 2009, pp. 515–16. PubMed Central, https://doi.org/10.1038/459515a.

Schmeink, Lars. “The Anthropocene, The Posthuman, and the Animal.” *Biopunk Dystopias: Genetic Engineering, Society, and Science Fiction*. Liverpool University Press, 2016.

Shelley, Mary. *Frankenstein.* Ed. Johanna M. Smith. Bedford/ St. Martins, 2016.

Simons, John. *Animal Rights and the Politics of Literary Representation*. Houndmills, Basingstoke, England: Palgrave. 2002.

Singer, Peter. *Animal Liberation*. Pimlico, 1995.

Singer, Marc. *Grant Morrison: Combining the Worlds of Contemporary Comics.* University Press of Mississippi, 2012.

Slaughter, Carl. “[Guest Interview] Multiple Award-Winning Author Pat Murphy on Defying

Genres and Exploring the Human Condition." *SF Signal*, 16 Mar. 2016, https://www.sfsignal.com/archives/2016/03/guest-interview-multiple-award-winning-author-pat-murphy-on-defying-genres-and-exploring-the-human-condition/.

Slote, Michael. *The Ethics of Care and Empathy.* Routledge, 2007.

Smith, Stephen W. "Dogs and Monsters: Moral Status Claims in the Fiction of Dean Koontz." *The Journal of Medical Humanities*, 2016.

Smuts, Barbara. "Reflections." *The Lives of Animals.* Coetzee, J.M. Princeton University Press, 2016.

Sousa, Monica. "To 'Jump' into an Animal's Body: Empathy, Care, and ResExtendas in Emma Geen's *The Many Selves of Katherine North.*" *Animals and Science Fiction.* Ed. Nora Castle and Guilia Champion. Palgrave Macmillan. 2024.

Sousa, Monica. "'Am I a Person?': Biotech Animals in Posthumanist Empathy in Jeff Vandermeer's *Borne*." *Transhumanism and Posthumanism in Twenty-first Century Narrative.* Ed. Sonia Baelo-Allué and Mónica Calvo-Pascual. Routledge, 2021.

Sousa, Monica. "Human and Animal Futurity: Survival, Flourishing, and Care in Margaret Atwood's *MaddAddam* Trilogy and Bong Joon-ho's *Okja*." *SFRA Review*, vol 51., no. 4, 2021.

Stanescu, James. "Species Trouble: Judith Butler, Mourning, and the Precarious Lives of Animals", *Hypatia: A Journal of Feminist Philosophy*, 2012.

Sweet, Ryan. "Cash Cows and Dogs with Dentures: Prostheses for Animals in Nineteenth-

Century British Culture." *Journal of Victorian Culture,* Vol. XX, No. XX, 2024. 1–18

Sztybel, David. *Animal Subjects: An Ethical Reader in a Posthuman World.* Ed. Jodey Castricano. Wilfred Laurier Press, 2008.

Taylor, Chloe. "The Precarious Lives of Animals: Butler, Coetzee, and Animal Ethics," *Philosophy Today*, Volume 52, Issue 1, 2008. 60-72.

Tomas, Natalie. "Autonomy and Animals." *Animal Ethics and the Autonomous Animal Self*. The Palgrave Macmillan Animal Ethics Series. Palgrave Macmillan, 2016. 69-95.

Tronto, Joan. *Caring Democracy*: *Markets, Equality, and Justice.* New York University Press, 2013.

Tronto, Joan. *Moral Boundaries: A Political Argument for an Ethic of Care.* Routledge, 1993.

Turnbull, Amanda. "Maneesha Deckha Animals as Legal Beings: Contesting Anthropocentric Legal Orders. Toronto: University of Toronto Press, 2021. 335 pp." *Canadian Journal of Law and Society / La Revue Canadienne Droit Et Société*, 36(3), 542 - 543.

Tuttle, Lisa. "Pets and Monsters: Metamorphosis in Recent Science Fiction." *Where No Man has Gone Before: Essays on Women and Science Fiction.* Ed. Lucie Armitt. Routledge, 1991.

Tweed, Laurel A. "Care ethics and cloning: a speculative literary critique of human biotechnology". Iowa State University Digital Repository, 2008.

Twine, Richard. "Undomesticating the Ethical." *Animals as Biotechnology: Ethics, Sustainability, and Critical Animal Studies.* Earthscan, 2010. 21-33.

Vandermeer, Jeff. *Borne.* Harper Perrenial, 2017.

Vandermeer, Jeff. *Monstrous Creatures: Explorations of Fantasy through Essays, Articles and Reviews*. Guide Dog Books, 2011. E-book.

Vint, Sherryl. *Animal Alterity: Science Fiction and the Question of the Animal*. Liverpool University Press, 2010.

Vint, Sherryl. "Animals and Animality from the Island of Moreau to the Uplift Universe." *Yearbook of English Studies*, vol. 37, no. 2, 2007.

Vint, Sherryl. *Biopolitical Futures in Twenty-First Century Speculative Fiction.* Cambridge University Press, 2021.

Vint, Sherryl. *Bodies of Tomorrow: Technology, Subjectivity, Science Fiction.* University of Toronto Press, 2007.

Vint, Sherryl. "Speciesism and Species Being in *Do Androids Dream of Electric Sheep*?" Mosaic, 2007.

Vint, Sherryl. "Without the Right Words It's Hard to retain Clarity: Speculative Fiction and Animal Narrative." *The Palgrave Handbook of Animals and Literature*. Ed. Susan McHugh. Springer Nature, 2020.

"Virtue Ethics." *Internet Encyclopedia of Philosophy*. https://iep.utm.edu/virtue/. Accessed 3 Nov. 2021.

von Uexküll, Jakob. *A Foray into the World of Animals and Humans: with a Theory of Meaning.* University of Minnesota Press, 2013.

Wall, Clare. *Climates of Mutation: Posthuman Orientations in Twenty-First Century Ecological Science Fiction.* York University, PhD, dissertation. YorkSpace, 2021.

Warkentin, Traci. 'Dis/Integrating Animals: Ethical Dimensions of the Genetic Engineering of

Animals for Human Consumption'. *AI & SOCIETY*, vol. 20, no. 1, Jan. 2006, pp. 82–102. DOI.org (Crossref), https://doi.org/10.1007/s00146-005-0009-2.

Weil, Kari. *Thinking Animals: Why Study Animals Now?* Columbia University Press, 2012.

Weil, Simone. *Waiting for God.* Harper and Row, 1973.

Weiss, Allan. "Terminology." *The Routledge Introduction to Canadian Fantastic Literature.* Routledge, 2021.

Wells, H.G. *The Island of Doctor Moreau.* Barnes and Noble Books, 2004.

Whyte, Jeffrey J., and Randall S. Prather. 'Genetic Modifications of Pigs for Medicine and Agriculture'. *Molecular Reproduction and Development*, vol. 78, no. 10–11, 2011, pp. 879–91. PubMed Central, https://doi.org/10.1002/mrd.21333.

Wittgenstein, Ludwig. *Philosophical Investigations.* Basil Blackwell, 1956.

Wolfe, Cary. *What is Posthumanism?* University of Minnesota Press, 2013.

Zavitz, Taylor and Corie Kielbiski. "Animal Oppression and Solidarity: Examining Representations of Animals and Their Allies in Twenty-First Century Media." *Networking Knowledge 14 (2): Climate, Creatures and COVID-19* Special Issue, Oct 2021. 95-109.