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More or Less Human: An Ecocritical Exploration of the Posthuman in Margaret Atwood's MaddAddam Trilogy

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More or Less Human:

An Ecocritical Exploration of the Posthuman in Margaret Atwood's *MaddAddam* Trilogy

By Paige Soal



A Dissertation to the Faculty of Humanities, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Master of Arts

Johannesburg, 2024

Supervisor: Professor Gerald Gaylard

Declaration:

I declare that this dissertation, “More or Less Human: An Ecocritical Exploration of the Posthuman in Margaret Atwood’s *MaddAddam* Trilogy”, is my own unaided work. It is submitted for the degree of Master of Arts at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination at any other university.

Paige Soal
Date: 11/03/24

Abstract:

We live in a time when science and technology are exerting more pressure than ever before on what it means to be human. As such, it has become necessary to consider the implications and limitations of a shift into the posthuman guided by science and technology. Supported by a close reading of the texts, this dissertation explores the posthuman as portrayed in Margaret Atwood's *MaddAddam* trilogy. Critically analysing Atwood's advocacy of a balanced shift towards a posthuman era, one not solely focused on the possibilities of human enhancement through scientific and technological intervention, but rather one which includes a close consideration of the elemental psyche of human beings, I argue that Atwood's intervention has substantial merit. Atwood's choice to foreground affect through observations of the human inclination towards religion, symbolism, and storytelling highlights the necessity of considering the aspects of the human mind which cannot be suppressed nor removed. Furthermore, her exploration of survivalism draws our attention to the unconscious aspects which contribute to our human condition. Atwood's texts also explore contemporary posthuman theory in relation to the current environmental crisis we face. Exploration of the various approaches to the posthuman in this multivalent way is necessary to ensure that the posthuman does not perpetuate our negative impact on the natural environment.

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First and foremost I am exceptionally grateful to my supervisor, Professor Gerald Gaylard. Thank you for your invaluable guidance, knowledge and patience. Thank you for encouraging me to extend myself far beyond what I thought myself capable of.

Thank you also to all of my friends, old and new. For encouraging me to continue, for comforting me, and for providing me with much needed opportunities to step away from my work to experience the world beyond the confines of my computer screen.

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Introduction:

> *If we see 'the Earth as the web of life that sustains us, then there is no question that the web is weakened, that the Earth is sick. But if we look at it from another side, from the view of the living Earth itself, then the sickness is not that of the planet, the sickness is embodied in human beings, and, if carried to its illogical conclusion, the sickness will not kill the Earth, it will kill us.*
>
> — Joseph Bruchac, *The Circle of Thanks*

Many of the dissertations I have read in preparation for writing my own begin with a personal statement explaining how that person's childhood and their first passions in life led them to the topic they have written on. I wish I could begin my own in the same way. But it seems that I had a simpler childhood, one not comprised of potential master's topics. My passions went from Bratz Dolls to boybands to fashion trends. However, over the past four years there has been a great shift in the thoughts that occupy my mind. I lie awake at night thinking about the hole in the ozone layer. I no longer have songs stuck in my head, instead I imagine the sound of large chunks of ice crashing into the warming ocean.

So instead of telling you how my childhood passion for environmentalism led me to write an ecocritical exploration of the posthuman, I will tell you instead that after reading Margaret Atwood's *The Year of the Flood* I felt compelled to become a vegan. That is it. Eating more vegetables. That is what truly inspired my master's dissertation topic. While this might seem anti-climactic, what is truly exceptional is the power of literature. I have read my fair share of books but until Atwood's not one had inspired me to make any drastic changes to my life. After reading *The Year of the Flood* I wanted nothing more than to join Atwood's fictional religious sect, The God's Gardeners. I could envision the world as we know it now becoming the world depicted in the texts of Atwood's *MaddAddam* trilogy. I realised that the continued actions and inactions of human beings would result in the realisation of the catastrophes depicted in these novels. I have come to forgive my childhood self for her trivial passions, however, continuing to ignore the devastating effects that human beings have had, and continue to have, on the planet feels almost reprehensible.

Not everyone will become a vegan after they return their copy of *The Year of the Flood* to their bookshelf. I do not expect that these texts will evoke the same feelings in every person who reads them, but I do believe that it is authors such as Atwood that function as the convenors of lay environmentalism. We cannot fail to recognise the influence that reading has on our perceptions of the world. While making adjustments to one's way of life in an attempt to lessen one's personal impact on the planet is necessary and not inconsequential, it is important to recognise that these personal adjustments are a tiny part of something greater. Environmental destruction is happening on a large scale, therefore changes to environmentally harmful practices and behaviours need to be taken up by the masses for this change to be truly consequential. While I maintain that charity begins at home, the issue of ecocide is greater than one person's choice to be vegan. It is positive massification, through initiatives such as #MeatFreeMonday, that have a greater impact on the environment as rather than a few people making a radical change to their lives, many people can begin to make a few smaller changes towards more environmentally friendly behaviours. While it can be argued that literature has little to no direct influence on a person's behaviours, it can impact our thinking and world views, allowing a gradual modification of behaviour, which may even be more sustainable than immediate action.

Ecocriticism and the Issue of Genre

My dissertation focuses on Atwood's *MaddAddam Trilogy* which includes *Oryx and Crake* (2003)*, The Year of the Flood* (2009) and *MaddAddam* (2013). While a large part of my interest in these texts is based on the contemporary nature of the issues raised in all three novels, this does not suggest that the value of these texts is based solely on their contemporariness. In fact, Atwood goes beyond the contemporary in the sense that she depicts a near-future, but also because she taps into perpetual acquisition of knowledge to deepen her exploration of these topical issues. There has been an immense increase in dialogue and research into ecology because of the prevalence of issues such as global warming, the extinction of species and the unsustainable actions of human beings. We are currently living in the era of the Anthropocene, during which the damaging effects of human activity on the planet have become impossible to ignore. Atwood writes about what might come next, not only in terms of the Earth but also in terms of humanity. She explores the relationship that exists between human beings and the

environment, and human beings and nonhuman animals in a way that makes one rethink the implications of apathy toward the natural world.

I believe "eco-dystopian" to be a fitting label for all three texts based on their subject matter, thus allowing for the texts to be analysed from an ecocritical point of view. Before delving into eco-criticism as a mode of analysis it would be best to explore the eco-dystopian. While the focus of my study is not genre, I am very aware of the importance of genre, as well as some of the key debates around it. A lengthy and in-depth debate about genre is not possible within the curtailment of a dissertation of which genre is not the sole focus. While I do not wish to suggest that these subcategories are superfluous, the issue of genre is not paramount in understanding the texts. One of the ways in which Atwood overcomes the conventions of genre is through her use of humour throughout the trilogy, a writing technique generally absent from fiction which falls under the label of "dystopian" or "post-apocalyptic." It is this use of humour which supplements the "hopefulness" of the trilogy. Atwood expresses her very real concerns regarding the future of human beings through satirical depictions of the driving forces behind ecological destruction. Her use of satire acts as a critique of "unbridled hyperconsumerism" (Bouson 76) evident in the ridiculous names of the corporations, but also in her depictions of the individuals' inclination towards consuming. This critique is balanced through her depictions of the opposite extreme which in this case is radical environmentalism and the masochistic behaviours conducted by these kinds of groups. The balance present in Atwood's critiques is carried through into her balanced vision for a posthuman future which will be explored further.

The dystopian is not unfamiliar as many well-known texts exemplify this genre, take for example Orwell's *1984* or Huxley's *Brave New World.* The term dystopia, meaning "bad place," is applied to texts which represent an unpleasant imagined society in which "certain ominous tendencies of our present social, political, and technological order are projected in some future culmination" (Abrams 178). Using this definition as a point of departure one might then assume that an eco-dystopian text is not totally dissimilar to a dystopian text with the only deviation being that it explores the ecological effects of said social, political, and technological order. This is precisely what Atwood offers her readers. However, simply labelling these texts as "dystopian" is limiting because she offers a sense of hope and possibility beyond dystopia. This

hope, however, does not present itself in the form of dystopia's binary opposition, utopia. Instead, Atwood herself has devised a word to describe this kind of writing; 'ustopia'. The word comes from a combination of the words 'utopia' and 'dystopia,' and it denotes exactly that. Atwood believes that "each contains a latent version of the other" (109). The texts of the *MaddAddam* trilogy deeply explore this genre as we are presented with some obviously utopian and dystopian elements, but within these characteristically dystopian or utopian spaces we see aspects of one binary opposite becoming known in its opposite.

Typically, these types of futuristic fictions would be classified as science fiction. Science fiction writer Ursula Le Guin states that, "To my mind, *The Handmaid's Tale*, *Oryx and Crake* and now *The Year of the Flood* all exemplify one of the things science fiction does, which is to extrapolate imaginatively from current trends and events to a near-future that's half prediction, half satire" (qtd. Atwood 20). Atwood herself describes the extrapolative nature of her works of fiction:

> As with *The Handmaid's Tale*, [*Oryx and Crake*] invents nothing we haven't already invented or started to invent. 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're already on? How slippery is the slope? What are our saving graces? Who's got the will to stop us? (qtd. Thomas 2013 3)

Atwood chooses to distinguish her works of fiction from science fiction, instead labelling her texts as speculative fiction. In her book on this issue of genre entitled *In Other Worlds* Atwood describes how she distinguishes between the two,

> What I mean by "science fiction" is those books that descend from H.G. Wells's *The War of the Worlds*, which treats of an invasion by tentacled, blood-sucking Martians shot to Earth in metal canisters—things that could not possibly happen—whereas, for me, "speculative fiction" means plots that descend from Jules Verne's books… things that really could happen but just hadn't completely happened when the authors wrote the books. I would place my own books in this second category. (21)

With that being said, Atwood explains that in a public discussion with Le Guin Atwood found that what Le Guin meant by science fiction was what she herself would have termed speculative fiction. Atwood summarises the issue saying, "When it comes to genres, the borders are increasingly undefended, and things slip back and forth across them with insouciance" (22). We see this as Thomas' definition of science fiction does not include "tentacled, blood-sucking Martians". In fact, the way he defines science fiction is comparable to Atwood's definition of speculative fiction:

> SF [science fiction] may be expressed as an examination of the pursuit of science by highlighting the dangers inherent in who is governing that science and why. Embedded in this characteristic is also the tendency for SF to warn … It appears to be the place of SF works, novels or films or comic books, to draw readers and viewers to that other world that is close enough to the real world that the audience can see reality, not distorted, as it is in the work, but more clearly. (18)

While authors actively reject certain labels being assigned to their works or insist on making clear distinctions between their works and those which supposedly exemplify a certain genre, I believe these efforts are an attempt to avoid the confines of categorisation.

Ecocriticism manifests in a variety of ways, however, a comprehensive way of looking at ecocriticism is as an analysis whereby environmental issues are central. In his book *Ecocriticism,* Greg Garrard describes this mode of analysis as an exploration of "the ways in which we imagine and portray the relationship between humans and the environment in all areas of cultural production" (3). He goes on to provide an excerpt from the 1996 book *The Ecocriticism Reader,*

> Simply put, ecocriticism is the study of the relationship between literature and the physical environment. Just as feminist criticism examines language and literature from a gender-conscious perspective, and Marxist criticism brings an awareness of modes of production and economic class to its reading of texts, ecocriticism takes an earth-centred approach to literary studies. (qtd. Garrard 3)

Despite the fact that ecocriticism is still an emergent discourse, it is a mode of criticism that can be applied to even the most ancient texts (Buell 2). Richard Kerridge believes that ecocriticism "seeks to evaluate texts and ideas in terms of their coherence and usefulness as responses to environmental crisis" (qtd Garrard 4). While ecocriticism's study of the relationship between literature and the natural world is generally considered from our current environmental crisis, Atwood writes of ecological concerns for a near future. Therefore, we cannot judge their "usefulness" as a response to that which has not occurred. It is for this reason that taking a reductionist approach to ecocriticism should be avoided as taking an instrumental view of the texts, specifically when conducting an ecocritical reading of them, is limiting. Marinette Grimbeek (2017) has described Atwood's trilogy as "an environmental project" (i). Once again, Atwood denounces the label given to her works as she fears such a label might reduce her novels to "environmentalist propaganda" (38). This once again highlights the flaw in Kerridge's definition of ecocriticism. Describing a text as an "environmental project" sounds like an official stamp of approval. Instead analysing texts from an ecocritical point of view should be done to gauge how persuasive a text is in terms of its literariness. Furthermore, it should allow for an exploration of the ways in which a text facilitates the intellectual transformation necessary for one to reconsider "inherited modes of thought and practise" (Clark xiii). In an interview with Merilyn Simonds Atwood responded to being called "an environmentalist" saying,

> Well, we've now got one of these great big words that people sort of kick around. What does it mean? I think it means, in my case, somebody who did the math. And the math is: when it's all gone there isn't any more. (qtd. Grimbeek 37)

Atwood writes fiction about the "What ifs?" regarding the future of the planet and humanity. She shows the possible negative outcomes of practices such as genetic engineering and biotechnologies. She also addresses the unsustainable practices conducted by human beings that exacerbate global warming. The practices that are addressed in her novels can be recognised by readers as existing within contemporary society, however Atwood has fast-tracked the possible outcomes through educated predictions in an attempt to warn readers about the questionable viability of this so-called progress. Eco-criticism also ties into the concept of the posthuman. Garrard explains that while eco-criticism engages in studying the relationship between the human and non-human in creative works, it also involves a "critical analysis of the term 'human'

itself" (5). To fully explore the concept of the posthuman, it is necessary to explore the roots of the term "human", as well as the ways in which human beings have individuated themselves from other beings, both human and non-human. This exploration of anthropocentrism also highlights the geological implications of holding beliefs of human exceptionalism. Furthermore, it shows the ways in which various definitions of the posthuman endorse or attempt to challenge anthropocentric thinking. Atwood maintains a critique of harmful anthropocentrism throughout the trilogy, however, she explores the necessity and unavoidability of anthropocentric practices rooted in survival, making an eco-critical reading of the texts not only possible but advantageous.

The Posts

The term "posthuman" or "post-human" is exceptionally complex and multifaceted and has been defined in various ways by different approaches, philosophies and schools of thought. The "post" could mean literally going beyond that which is biologically human, or it could be a reformulation of the ways in which the notion of the human has previously been understood. The term posthuman has been defined by various movements, each definition significantly different from the next. As a result, the discourse around the posthuman scenario does not take place on a single forum. Each variant of posthumanism and its conceptualisation of the posthuman can best be understood in relation to the root word, humanism. Humanism is a multifarious movement and the definition which follows is a simplified one. Some of the key defining words seen across the various definitions of humanism include "non-theist," "individuality," "democracy," "morals," "science" and "human nature." It affirms that people are responsible for, give meaning to, and shape their own lives. Rosi Braidotti describes humanism as "a doctrine that combines the biological, discursive and moral expansion of human capabilities into an idea of teleologically ordained, rational progress" (13). Humanism began in the Renaissance period as interest shifted away from religion towards the importance of humanity. Modern humanism bases truth and values on human experiences and human nature, rejecting supernatural truths (74). Rather than placing faith in deities, a God or any supernatural forces humanists have faith in the "unique, self-regulating and intrinsically moral powers of human reason" (13). Braidotti explains that humanism has mutated into a hegemonic cultural model which "assumes that Europe is not just a geo-political location, but rather a universal attribute of the human mind that

can lend its quality to any suitable object" (13). Because Europe is only equal to itself, this kind of Eurocentric hegemony creates a binary logic resulting in the creation of an "inferior" other (15). While the above paints a rather negative picture of humanism it should be noted that this critique is based not on the core values of humanism, but rather on the ways in which these values have been distorted or "mutated" as Braidotti terms it. The first distortion is the way in which the movement's human-centric view has not been enacted with survivalism in mind, rather this has allowed for the adoption of anthropocentric thinking to the detriment of nonhuman animals and the natural environment. The second is the aforementioned narrowness of the definition of the "human" on which the movement has established itself, thus excluding minority groups. With that being said, at its core the movement is concerned with the affirmation of the dignity of each human being, "consonant with social and planetary responsibility" (American Humanist Association).

Atwood was awarded the Humanist of the Year award in 1987, an award established to pay recognition to a person who "through the application of humanist values, has made a significant contribution to the improvement of the human condition" (American Humanist Organisation). Humanist Canada describes Atwood as "pairing literature and activism to encourage looking critically at religion while promoting freedom of thought, scepticism and the philosophy of Humanism". It is evident, then, that while Braidotti's critique of the movement holds validity in its observations of how the enactment of humanist values has been carried out negatively, it would be unfair and incorrect to suggest that humanism as a philosophy is simply the product of Eurocentric anthropocentrism. While Atwood was chosen as the recipient for an award for her "application of humanist values" in her work, Atwood and more specifically her *MaddAddam* trilogy foreground, but also challenge humanist values. Atwood pays close attention to one of the aspects which separates us from nonhuman animals, something which essentially contributes to our humanness, which is our elaborate means of communication, more specifically our habit of storytelling. She continues this humanist exploration in her observation of the tension between storytelling and the creation of religion. Religion is the first area where Atwood's humanism diverges from traditional humanism and thus presents itself instead as a kind of posthumanism. Because humanism is deeply concerned with rationalism it leaves little room for the consideration of mythology, a topic central to Atwood's trilogy. What Atwood manages is a

balanced view of the topic of religion as she critiques certain aspects of religion, while simultaneously considering our human inclination toward and need for it in our search for meaning.

While Atwood critiques a disregard for the natural world due to distorted humanist beliefs, she also highlights the difficulties in balancing sustainability and the survival of the human species. Hannes Bergthaller explains this saying that Atwood explores the ways in which many of "the behavioural patterns that lead to environmental destruction are not in any way 'unnatural'… they are indeed lodged in 'the ancient primate brain'" (741). Through the creation of the Crakers Atwood depicts her belief in an elemental human psyche which cannot simply be edited out. However, it is through the God's Gardeners that Atwood suggests that ecologically ethical behaviour is attainable through "practice and self-discipline" (Bergthaller 741). Telligman explains how the Gardeners "demonstrate how non-normative ethical systems can be enacted… Atwood gives us a model by which to imagine enacting change in our own society, and the ethical system that must be implemented if we wish to avoid ecological ruin" (2). Thus, we see that while Atwood certainly considers humanist philosophy, she is critical of its shortfalls. Having explored a definition of humanism, it is now possible to look at the various posthumanisms which exist. Approaches such as Critical Posthumanism and Philosophical Posthumanism attempt to move beyond the binaries of the Eurocentric, anthropocentric version of humanism by seeking out different ways to conceptualise the notion of the human (Braidotti 37). Transhumanism, another variety of posthumanism, does not subvert the humanist understanding of the human, rather it supplements humanist thinking (Ferrando 78). Like humanism, this non-theistic approach favours "reason, progress, and values centred on our wellbeing" (qtd. Ferrando 78). However, it transforms humanism by exploring ways in which human beings can "transcend the boundaries of their current existence" through scientific intervention (Sorgner 1). While each branch of posthumanism considers the possibilities of human enhancement technologies, transhumanism's main focus is the realisation of a corporeally enhanced posthuman being. In her book *Philosophical Posthumanism* (2019) Francesca Ferrando defines Philosophical Posthumanism as discharging "any confrontational dualisms and hierarchical legacies" hence she describes posthumanism as "post-humanism, post-anthropocentrism and post-dualism" (57). It is important to note that varieties of posthumanism

such as Philosophical and Critical posthumanism do not necessarily view the posthuman simply as being "beyond humanness in some biological or evolutionary manner" (59). Rather, it is described as an attempt to understand the world outside of the limits of Eurocentrism and anthropocentrism. This is essentially an attempt to understand a world which does not exist as we live in a world whereby anthropocentric thinking is the norm and our epistemology is centred around an exclusionary version of humanist thought. I believe that based on this, it is possible to link this theory to the texts, as they too are based on imagined societies. While varieties of posthumanism which foreground philosophy tend to critique varieties of utopian posthumanism which focus on genetically altering the human body, it is evident that their own vision is equally utopian in nature. This is evident in their suggestion that human beings can be posthuman by abandoning dualistic and anthropocentric thinking, aspects which, as suggested above, may be rooted in our 'ancient primate brain'. Conversely, transhumanism defines the term posthuman as the product of the radical transformation of the human through science and technology (67). Transhumanist philosophers Max More and Natasha Vita-More (2013) describe transhumanism as seeking "the continued evolution of human life beyond its current human form as a result of science and technology guided by life-promoting principles and values". They go on to say that transhumanism aims to understand and evaluate "the opportunities for enhancing the human condition and the human organism opened up by the advancement of technology" (38). It is for this reason that transhumanism can be viewed as a utopian project. The movement is largely consumed by the possibilities of science, largely unconcerned with the historical context of the notion of the human and thus the potential perpetuation of the limitations attached to this notion. When comparing the various approaches side by side, transhumanism in many ways appears almost the antithesis of the other approaches. Many of the views held by the one refute the views of the others. Despite these contradictions Atwood successfully merges these differing views within the *MaddAddam* trilogy, providing the reader with a comprehensive conceptualisation of the posthuman, one which recognises the technological turn which we have taken while drawing our attention to the shortfalls of an approach which ignores human psychology. This ultimately amounts to Atwood's own posthuman vision: one not simply concerned with the possibilities of the creation of a genetically enhanced posthuman, nor one focused on the reformulation of the human as a notion through philosophical enquiry. Instead, I argue that Atwood incorporates aspects of both varieties. In addition to this, Atwood explores the necessary aspect of human

psychology in the shift to a posthuman era. This addition, which is largely absent from the aforementioned varieties of posthumanism, is necessary as it considers the limitations of corporeally enhancing the human. However, it also considers the limitations of a philosophical approach to the posthuman which advocates for the abandonment of anthropocentric thought.

The transhumanist notion of the posthuman is greatly explored in each of the texts and is most heavily critiqued when the technological advancements that this approach advocates cause severe ecological damage and the perpetuation of social inequality. The texts then call on other posthumanist notions as a means of reassessment, such as those proposed by Philosophical and Critical Posthumanism which pay consideration to the natural world and minority groups. Atwood's scepticism about a utopian, transhumanist version of the posthuman, rooted in hubristic science seems fair to me, as this approach largely ignores human psychology. Reliance on technology and science for human progression leaves humanity constantly playing catch-up with these advancements. This could result in unintended consequences as a result of our untransformed psychology, as well as the amplification of negative behaviours heightened by this technology. A more positive posthuman shift would be characterised by being observant and critical of the potential consequences in this shift. It is, however, important to remain aware of the issues pertaining to incessant criticism, specifically of anthropocentrism as this criticism fails to consider our innate survivalism and can result in the enactment of masochistic behaviours. This is because a degree of self-interest is not only natural, but necessary and rooted in our survival instincts. Ultimately, Atwood suggests that there is no straightforward approach to a posthuman future. She effectively displays the limitations of humanism, primarily through the character of Jimmy. However, she is most critical of what Telligman terms the "radical posthumanism" of Crake (4). Finally, we are presented with the God's Gardeners whose "imaginative systems and subcultural spaces" (Telligman 3) appear to be the most successful model for a posthuman future, however, Atwood highlights the limitations that exist within this kind of system as well. I would not classify Atwood as a cynic simply because of her explorations of these limitations. Extrapolating current trends requires a consideration of all factors and outcomes; with that being said, Atwood does lean to the side of the humanities rather than that of science and technology. While this could be viewed as unobjective, as Atwood has

immersed herself in the humanities from a young age, she acknowledges that the world has taken a largely techno-scientific turn, thus her texts explore a posthuman future with this in mind.

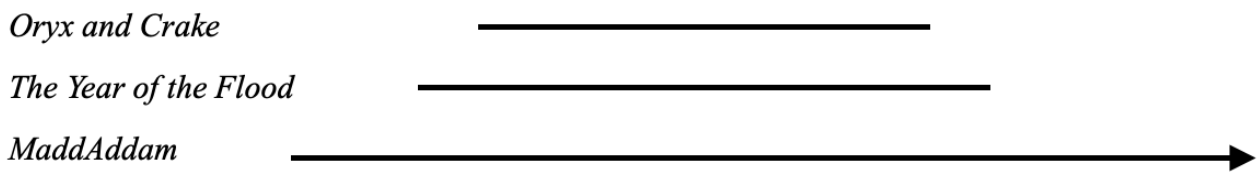
The Texts

Much of the science in *Oryx and Crake* already exists or is at least in the experimental stages. The representations of environmental degradation within the novel are not dissimilar to the changes we are witnessing today. The story follows the life of Snowman, once Jimmy, as he navigates his way through life post the "Waterless Flood". The reader is provided with flashbacks of Jimmy's life and the events that led up to the end of the world as he once knew it. It is also in this novel that we are first introduced to the hubristic scientist, Crake, as well as his posthuman creation, the Crakers. If *Oryx and Crake* is masculinity, science and transhumanism, then *The Year of the Flood* could best be viewed as femininity, nature, and posthumanism. This novel is told from the point of view of two women who once belonged to religious sect the God's Gardeners, but have now been left stranded by "The Waterless Flood". The novel is not a sequel to the events of *Oryx and Crake,* instead the events in *The Year of the Flood* run parallel to those in the previous book, however, the perspective has changed. Once again, the reader is provided with flashbacks of the world before humanity was wiped out. However, this time the flashbacks provide the reader with insight into the lives of the members of the sect as well as life in the pleeblands. The pleeblands are the cities where the general population live while the Compounds are affluent areas, home to the employees of the mega corporations. While life in the Compounds is exceptionally sheltered and those who live in them enjoy the creations and inventions of the science that takes place behind their high walls, life in the pleebs is significantly less glamorous. The people living in the pleebs are surrounded by the dire consequences of the science happening within the Compounds.

The final book of Atwood's trilogy is *MaddAddam,* and it explains the lives of those who have survived "The Waterless Flood". This book acts as a sort of sequel to the events of the previous two texts, though there are frequent flashbacks that extend and revise some of the world building, this time from the perspective of Zeb. In this text the very conflicting ideas of those who worked on Crake's project, members of the God's Gardeners, as well as the product of

Crake's gene hacking (the Crakers) are forced to live together. Through this amalgamation of opposing principles and ideas Atwood presents the reader with her own version of posthumanism. While I described the previous two texts using dialectical pairs, this final text can best be described as the product of the dissolution of these binaries through the recognition of their interconnectedness.

The basic diagram below provides a depiction of the narrative timeline of each text in the trilogy:



This structure is pyramidal in that the last text extends further into both the past and future than the previous two texts. This time-shifting narrative is one of the writing techniques which aid in presenting the reader with a comprehensive understanding of the world both pre- and post the Waterless Flood. The pyramidal structure describes the time frame covered by each text; however, the actual narrative of the trilogy is circular in nature. This circular narrative structure continuously provides the reader with a renewed retrospective understanding as they read each text, thus encouraging the reader to rethink what they previously thought they knew. This recursive narrative structure allows us to question not only what we thought we knew about each character, but on a greater scale what we think it means to be human. This narrative mirrors Atwood's exploration of Jung's theory of the collective unconscious in that as we progress through each text, we keep realising that we did not get the full story, and that in order to gain a clear understanding of the present, we need to keep gathering information from the past. Similarly, Jung's theory suggests that a greater understanding of the collective human mind is gained through an exploration of that which shaped this mind in the past, the 'primordial images' which it contains. Through this Atwood creates harmony between the form and content of her texts.

Grimbeek describes the structural integrity of Atwood's trilogy as "particularly interesting" in that "the novels of the trilogy in effect become each other's intertexts" (44). This allows for the reader to fully understand the shift into a posthuman era as it happens across social, economic

and gender boundaries while we are essentially presented with the same story but from differing points of view (45). Because the world of the texts' is not an exact replica of the world we occupy, it is necessary for the reader to develop a comprehensive view of this futuristic society. Furthermore, it is equally important for the reader to be aware of the environmental, social, and economic changes that have taken place in order to understand how the world reached the state presented to us in the texts. The narrative structure comprises of both present and past accounts of certain characters' lives, not only adding depth to these characters, but also illuminating the ways in which the psychological history of each character influences the posthuman space which they occupy. This is especially true regarding the character of Crake, as a deeper understanding of his character supplements our understanding of why he created the Crakers to possess certain traits and to be free of others. In doing so, Atwood once again highlights the importance of considering human psychology as we move towards a posthuman future. The narrative structure of the trilogy mirrors a quote from the final text *MaddAddam*,

> There's a story, then there's the real story, then there's the story of how the story came to be told. Then there's what you leave out of the story. Which is part of the story too. (70)

We see, then, the ways in which the metafictional story we read in many ways mimics the above description of the stories which Toby tells to the Crakers in *MaddAddam*. What is notable is that the first two texts are comprised only of human voices while the final text includes the voice of the posthuman Crakers. Furthermore, the final text is not limited to just a female or male perspective, instead we hear the voice of both female and male characters (Rokka 30). Atwood gives a voice to the female and posthuman 'other' in a setting whereby this voice is not filtered through gendered subjectivity as a result of sustained patriarchy, nor is it stifled by anthropocentric projections present in the world pre- the Waterless Flood. Instead, the part of the narrative which explores life post-apocalypse takes place within a space whereby judgment stems from nature rather than from constructed hierarchies. By the end of the final text the narrative is taken over by a Craker child, suggesting that in a posthuman era our human voice as we know it will ultimately be reshaped. Appleton explains how the "metanarrative" of the first two texts is replaced by "micronarratives" present in the final text, highlighting that there exists no single human experience. Rather knowledge and experience across the lines of gender,

species, and education exist simultaneously and none usurps another (3). With that being said, Atwood highlights how hierarchies and binaries which have been sustained for many years cannot simply be erased. Although Toby narrates a large portion of the final text, and she is the one who replaces Snowman's voice in terms of telling stories to the Crakers, we notice that Toby's story is largely absent from *MaddAddam*. Instead, she uses her narrative voice to recount the story of a male character Zeb. As such, Atwood points to the continuation of gendered hierarchies into the posthuman era, pointing to the potential subsequent re-emergence of pre-existing epistemological foundations. Furthermore, we see that although a Craker child takes over the narrative, the nature of the stories told by Blackbeard largely remains the same as those told by the humans. This points to the unconsidered but ever-present human condition. Atwood suggests that this 'new beginning' is in many ways a re-enactment of the old as the text ends in an ever-improving pastoral setting in which the Crakers slowly begin to learn the human practices of reading and writing as well as religion and rituals. As explained above, the texts in many ways form a circular structure as the trilogy explores a near future, yet its ending is very much reminiscent of human beginnings. In suggesting that 'the human' begins again Atwood points to a human psychology unconsidered by science as it is the very aspects which Crake wished to edit out of human beings that begin to re-arise in the Crakers. However, this idea of the human beginning again is also seen through the human survivors as they begin to rebuild human society in a way not dissimilar to that seen in historic accounts of the first human societies. This amounts to a critique not only of a posthuman vision which aims to use science as its sole guide, but it also points to the futility of trying to enact a wholesale abandonment of anthropocentrism ignorant of the human inclination towards survivalism.

Over and above the success of Atwood's world building in terms of its scrupulous structure, she creates a compelling post-apocalyptic world, which keeps the reader coming back to this world for two subsequent texts. Most post-apocalyptic fiction presents us with depleted landscapes, and the imminence of danger. Atwood too chooses to present us with a post-apocalyptic world characterised by the typical depletion of the human race, however, the setting of the world post the Waterless Flood is in many ways more pleasant than the pre-apocalyptic world presented in the texts, a world which we already know closely mirrors our own. While Atwood's post-apocalyptic trilogy imagines science "as having enabled the creation of an incurable virus that

had wiped out most of humanity" (Bahrawi 251) which is not atypical of a post-apocalyptic narrative, her trilogy is characterised by a unique use of satire and humour in the face of disaster. Despite this uncharacteristic aspect, Atwood's trilogy should not be mistaken for a frivolous work. Atwood's humour can best be described as sophisticated, possessing an air of crone wisdom. I believe that she makes use of humour in order to present the reader not only with a compelling and entertaining story, but with a palatable depiction of our unpalatable reality, specifically regarding the environmental crisis which we face. Grimbeek explains that Atwood's use of humour "allows her fictional world to intrude into the world of her readers" (27). Thus, this dissertation will explore the ways in which Atwood make use of satire and humour to further her posthuman vision.

When referring to Atwood's posthuman vision I have made constant reference to terms such as "human psychology", "human condition" and "human psyche", explaining that Atwood possesses an awareness of these elements which ultimately contributes to the balanced nature of her posthuman vision. Growing up alongside parents from scientific backgrounds, her father an entomologist, her mother a dietician and nutritionist (Potts), it may come as a surprise that Atwood's posthuman vision is not more science-centred. Instead, Atwood focuses her attention on the human mind. In fact, she goes so far as to provide the reader with a strong warning regarding the dangers of unbridled science and the consequences of failing to consider psychology. If we look at Atwood's educational background and those who may have influenced her, we gain a clearer insight into how her posthuman vision may have taken shape. Atwood studied a Bachelor of Arts in English at the University of Toronto. Here she was lectured by Northrop Frye (Potts), author of *Anatomy of Criticism* (1957). In an interview with Nick Mount, Atwood speaks about Frye saying, "At a time in Canada when people did not generally recognize the importance of the arts, he did, and he was a very strong voice so that people doing it didn't think they were completely crazy" (64). Frye himself insists upon the necessity of literature describing it as "essential to the spiritual health of the individual and the nation" (qtd. St. Andrews 47). Throughout the *MaddAddam* trilogy Atwood too posits the importance of the arts, a topic more closely discussed in the chapter on *Oryx and Crake* and again when looking at the re-emergence of symbolism and storytelling in the chapter on *MaddAddam*. Beyond their shared view of the importance of the arts, we see how the framework of Atwood's narrative borrows

from the archetypes of Frye's *Anatomy of Criticism*. In his text Frye explains that as readers we have a natural impulse to compare what we read with our "life" (134), but that certain genres present us with fictional worlds far removed from "familiar experience" (136). He continues, explaining that in between the archetypes of myth and those of more "plausible adaptation[s]" lies romance (136). While Margaret Atwood never completed her PhD, the title of her proposed thesis was "The English Metaphysical Romance" (127) and we certainly see these elements of romance throughout the trilogy through Atwood's sustained hopefulness. Furthermore, the *MaddAddam* trilogy occupies this middle space that Frye speaks of through its speculative nature paired with its exploration of myth and storytelling, "This affinity between the mythical and the abstractly literary illuminates many aspects of fiction, especially the more popular fiction which is realistic enough to be plausible in its incidents and yet romantic enough to be a 'good story'" (139). In her anthology *In Other Worlds* Atwood includes a quote by her past lecturer Frye which greatly speaks to the nature of her own works of fiction, "[Science Fiction is] a mode of romance with a strong inherent tendency towards myth" (qtd Atwood 70). Frye explains the romantic archetype as "the tendency to suggest implicit mythical patterns in a world more closely associated with human experience" (139-40). While the influence of Frye's archetypical criticism is certainly observable in Atwood's trilogy, what should be noted is the way in which she contributes a new kind of absurd apocalypticism to the existing body of apocalypse archetypes through the presence of both wisdom and humour in the texts of her trilogy. Influenced by Frye, Atwood's posthuman vision which foregrounds human psychology is close to the psychological theory of Carl G. Jung. Jung bases his personality psychology on archetypes which he believes to be present in what he terms the "collective unconscious" of all human beings, a term that first appeared in his 1916 essay "The Structure of the Unconscious". Freud had theorised that the unconscious mind was formed through personal experience and that human behaviours were largely influenced by unconscious processes; Jung furthered this theory in his belief that it comprised of both personal experiences and of images present in the unconscious mind of all human beings as a result of many years of evolution. Frye saw how applicable Jung's archetypes were to literature's characters and made use of archetypes as a mode of literary criticism. Frye uses the analogy of looking at a picture to explain this mode of criticism, saying that we may stand close to it and "analyze the details of brush work and palette

knife" but if we stand back "the design comes into clearer view, and we study rather the content represented" (140).

According to Jung each human being has what he terms a "collective unconscious", the "deep layers of the unconscious, where sleep the primordial images common to humanity" (qtd. Hernández 20). Jung acknowledged that we are certainly shaped by "personal memories" as suggested by Freud (Jung 67), a factor explored by Atwood through the psychohistory of her characters. However, Jung explains that there exist "human representations of things as they have always been" (67). These "representations" according to Jung are "inherited through the brain structure from one generation to the next" (67). An extract from his *Two Essays on Analytical Psychology* (1928) clearly depicts his works' relevance in the context of Atwood's *MaddAddam* trilogy:

> The fact of this inheritance explains also the really amazing phenomenon, that certain legends and themes repeat themselves the whole world over in identical forms… The primordial images are the deepest, the most ancient, and the most universal thoughts of humanity… It needs only certain conditions in order to reappear. (68-71)

As such it is possible to use Jung's theory of the collective unconscious as the psychological backbone of Atwood's posthuman vision. A major critique of Jung's work is the lack of scientific proof to back his claims. This critique closely ties into Atwood's own exploration as through her exploration of Jung's theory she points to the absence of humanist feeling within scientific thinking. Jung's psychological theories have previously been used as a point of departure in analysis of Atwood's work, however this has mostly been in reference to Jung's archetypes present in the personal unconscious. While there exists no previous research on Jungian psychology, specifically the collective unconscious, in the *MaddAddam* trilogy, his theories have been applied to Atwood's other works. In *MaddAddam* we see the re-emergence of "human representations" in the posthuman Crakers. Through this Atwood highlights the limitations of a posthuman shift which focuses solely on physically enhancing the human being through genetic engineering. Instead, she points to the aspects of the human condition which cannot simply be edited out of us. Furthermore, she suggests that the aspects of this human

condition which we deem as problematic, such as our anthropocentric nature, cannot simply be abandoned as proposed by philosophical approaches to the posthuman. Rather, she posits a reframing of this worldview which recognises both our innate nature, but also our responsibility towards the natural environment. Ultimately Atwood presents us with a post-anthropocentrism cognisant of our collective unconscious.

Aim and Chapter Breakdown

With close reference to posthumanist theory I aim to explore the ways in which each of the texts address the concept of the posthuman. This textual analysis will be done from an eco-critical perspective. By exploring the ways in which Atwood explores a potential posthuman future we can gain a greater insight into her own posthuman vision, which includes both scientific advancement as well as a consideration of human psychology. This dissertation is split into four chapters. The first chapter takes a closer look at posthuman theory, while the subsequent chapters are dedicated to each of the three texts. I have chosen to approach my dissertation in this way to ensure that the theory explored throughout is clearly laid out before delving into Atwood's texts. The first chapter begins with an exploration of the notion of the human, and how our current understanding of the term has been influenced by the historical context in which the term was created. This includes looking at the exclusionary, binary, and hierarchical nature of this term. It is important to understand the notion of the human to fully understand the various formulations of the posthuman. The chapter goes on to explore human beings' relationship to nonhuman animals and the natural environment to further my investigation of the limitations of the notion of the human and how this notion has been used as a means of viewing human life separately from the life of other organisms. This then allows for greater insight into what a positive posthuman shift might entail, but also into the limitations of these philosophical enquiries, particularly a wholesale abandonment of anthropocentrism. This chapter also looks at the notion of the posthuman and how its definition has mutated across various schools of thought. I focus on a posthuman approach known as transhumanism which is centred around the enhancement of the human being through a reliance on the technological and scientific as this approach closely aligns with Crake's actions. I also pay attention to posthumanisms which foreground dismantling the notion of the human in order to reformulate this term to be free from exclusionary beliefs, an

approach more closely aligned with the practices of the God's Gardeners. In exploring both a science-centric and a more philosophically focused posthumanism I am able to explore what Atwood has to say about each as well as how her critiques of each aid in the formulation of her own posthumanism.

The second chapter explores the first text of the trilogy, *Oryx and Crake*. Because this text is largely concerned with science and technology, I am able to apply transhumanist theory to this text and explore what Atwood deems to be the pros and cons of this approach. The third chapter, which is on *The Year of the Flood*, in many ways acts as the binary opposite of my first chapter, just as the text it explores is in many ways the opposite of *Oryx and Crake*. This chapter explores a posthumanism which foregrounds belief systems closely aligned with the post-anthropocentrism seen in Critical and Philosophical posthumanism. While Atwood appears more in favour of this kind of approach, she nonetheless draws our attention to the limitations of a complete dismantling of the ontological foundations on which the notion of the human has been built. She does this by depicting the masochistic behaviours which might ensue as a result of incessant criticism of humanity and a total abandonment of anthropocentric worldviews. Chapter four looks at *MaddAddam,* the final text of the trilogy. This chapter differs from the previous two in its exploration of Atwood's own posthuman vision. In this text, the characters from the previous two texts are forced to live and work together in order to navigate the post-apocalyptic world alongside the posthuman Crakers. As such, this chapter explores what Atwood envisions a posthuman future to look like, and how opposing entities might interact in a space which does not favour one over the other. Furthermore, this chapter explores the notion of survivalist anthropocentrism as the median point between masochistic altruism and anthropocentrism rooted in human chauvinism and speciesism.

Chapter One: Posthuman Theory

The Human

Today the word human is often seen nestled in between “post”, “trans”, “anti” and “ism”. A clear understanding of the etymology of the word “human” is hence necessary in order to fully understand how it has been situated within these various approaches to the human. By looking at the history of as well as the issues that exist around the notion of the human, specifically the dualistic and anthropocentric nature of the notion, we can gain a clearer insight into why there have been calls by humanities scholars, posthumanists, and minority groups for a reformulation of the term. Furthermore, an examination of the human draws our attention to the ways in which approaches to the posthuman such as transhumanism and various schools of posthumanism subvert or perpetuate the issues pertaining to this notion. In attempting to do justice to my exploration of Atwood’s balanced exploration of the varieties of posthumanism and anthropocentrism, I hope that my own perspective is balanced. I believe that a distinction needs to be made between harmful and more positive varieties of anthropocentrism, a distinction that is apparent in Atwood’s narrative that advances a strong critique of anthropocentrism whilst having humans survive.

The word “human” as an adjective is defined as that which relates to humankind, that which is characteristic of people as opposed to God, animals, or machines, or finally as that which relates to the display of the better qualities of humankind (“human”, Adj.). The nominal version of “human” is defined as a human being (“human”, N.). One of the earliest recorded words denoting human beings is the Greek word “anthropos”. In Ancient Greece in order to be considered an anthropos, or human, one could not be an animal, one could not belong to the divine realm, and finally one could not be a “barbarian” (Ferrando 174). The word barbarian is derived from the ancient Greek word “bárbaros” believed to be onomatopoeic of “bar bar”, the babbling sound heard by Greeks from non-Greek speakers (“barbarian”, def. 1). This condescending term born out of a refusal to admit not understanding other languages then became xenophobic in nature, referring to non-Greeks who were perceived as uncivilised or inferior (“barbarian”, def. 2). This means that the Ancient Greeks defined themselves in

separation from others despite biological similarity. The term "anthropos" is seen in English words linked to the human. For example, anthropology is the study of humankind and anthropocentrism directly translates to human-centred, and defines the view of human beings as the central element of existence. While 'anthropos' cannot necessarily be equated to the Latin word 'humanus' from which the English word 'human' is derived, it is nonetheless important to recognise the influence that the term has had throughout history on the notion of the human, specifically in terms of the exclusionary nature of this term (Ferrando 174). This exclusionary attitude is evident in the English derivates of the word as witnessed through British colonial discourse. David Harding explains that this discourse was in no way unique to colonial times. In fact, he states that it was "a natural outgrowth of a discourse dealing with 'barbarians' and 'others' that had been developing in Europe since at least the time of Rome" (39). What is important to note here is a distinction between the term "human" and human beings as a species. An exploration of the problematic history of the term can often appear to provide an overwhelmingly negative view of human beings. An exploration of the notion's history is simply necessary in order to understand why there have been calls by posthumanist theorists for a reformulation of this term. This is largely owed to the fact that the term 'anthropos', and arguably the term 'human', partly derive their meaning from dualisms or conceptual divisions. Francesca Ferrando explores dualisms in relation to the notion of the human through reference to the feminist theory of Simone de Beauvoir. De Beauvoir explains that man is able to achieve his identity through the 'other' which in this instance is the woman (136). Therefore, the identity of the woman is contingent on that of the man, "man is man because the woman is not" (136). Other common conceptual divisions include nature and culture, and mind and body. In all of these instances one half of the dualism is generally granted inferior status. Throughout history women have been viewed as inferior to men, widely held anthropocentric beliefs see culture as being superior to nature, and finally Rene Descartes' philosophical proof of existence based on one's ability to think might suggest that mind trumps body (137). While dualisms are not always hierarchal, take for example the Taoist principle of yin and yang which shows the harmonious and complementary relationship between seemingly opposing principles, those that are based on hierarchical legacies can be particularly problematic (Ferrando 57). This hierarchical and dualistic history of the notion of the human thus draws our attention to the grounds on which Critical and Philosophical posthumanists base their desire for a reformulation of this term, one

not burdened by the exclusionary foundations of the notion. Philosophical posthumanism explores these problems stating that hierarchical legacies are often established through exclusionary practices such as sexism, racism, classism, ageism, homophobia, and ableism (32-3). Secondly, it explains that once hierarchies have been established, specifically based on the grounds of exclusion, they can be rigid and thus difficult to dismantle or reorder (31). Lastly it states that dualisms formed from hierarchical legacies may allow for an uncritical acceptance of both anthropocentrism and speciesist assumptions, proliferating the formulation of symbolic others (60-1). In his book *Less Than Human* David Livingston Smith elaborates on this point saying, "Clearly, being human can't be the same as *looking* human" he continues, "it's about what people aren't rather than what they are" (231).

Philosophical posthumanists do, however, counter this view by recognising that hierarchies are a natural occurrence meant to foster group survival (32). While historically hierarchies have had a negative impact on certain groups, it seems unlikely that human beings can simply abandon this system or that it can be genetically edited out of us. Atwood closely explores this in her novels both through the God's Gardeners and through the Crakers. While the Gardeners in many ways share the same sentiments as Critical and Philosophical posthumanist thinkers as seen in their decision to avoid participating in the societal structures which they deem to be deeply flawed, we nonetheless see the formation of hierarchies within their group. In the case of the Crakers, we know that Crake aimed to genetically engineer these beings to be free from the aspects which he viewed as the basis for the formation of hierarchies, however, throughout the trilogy we witness the Crakers slowly slipping back into the very human patterns of hierarchy formation. Through this Atwood too recognises that hierarchies are a natural occurrence, and perhaps a part of a collective unconscious shared by all humans.

Rosi Braidotti further problematises the notion of the human saying:

> Not all of us can say, with any degree of certainty, that we have always been human, or that we are only that. Some of us are not even considered fully human now, let alone at previous moments of Western social, political and scientific history. (Braidotti 1)

She explains that we go so far as to assign ourselves rights based on an assertion that we are undoubtably recognised by all as 'human' (Braidotti 1). We rarely stop to think about what exactly makes us human or how we came to the unspoken, unanimous consensus that we can exhaustively identify with this term. While Braidotti's observations hold true when criticising the ways in which human beings have used hierarchies as a means of othering, it is equally important to consider that our inclination towards these behaviours may fulfil a survival function when carried out under certain conditions. Like Ferrando and Braidotti Atwood explores the negative aspects of hierarchies most obviously through the geographic layout of the trilogy which consists of two socially and economically disjunctive areas. The social and economic hierarchies presented by Atwood in this context highlight the uneven distribution of resources fuelled by the greed of those at the top. In this context decisions are made not for the greater good, instead they further existing social and economic gaps. Atwood does, however, present the reader with a balanced view of this issue, a counter perspective absent from much Critical and Philosophical posthumanist discourse. In the final text of the trilogy Atwood suggests not an eradication of hierarchies (in fact she suggests this is improbable), rather she observes the ways in which hierarchies might be implemented with the survival of the whole group in mind. This links back to the distinction between harmful anthropocentrism and varieties focused on survivalism whereby hierarchies aid in fair resource allocation, effective decision making and overall social cohesion.

What is evident from the points explored above relating to the work of Critical and Philosophical posthumanist philosophers, is that while these approaches consider the very real concerns regarding the notion of the human, they are characterised by an incessant criticism of the notion as well as a foregrounding of the negative aspects of humanity as a whole. While the points addressed above are justified in their recognition of a need to overcome and prevent the perpetuation of these issues in a posthuman era, this overwhelmingly negative impression of humanity leaves little room for an exploration of a positive posthuman shift. Atwood too explores these issues, however, she offers up a balanced critique which will be further explored in the chapters which follow. Critical and Philosophical posthumanism provide a framework for a posthuman society characterised by awareness and caution. Atwood takes this a step further by explicitly exploring the positive behaviours which she believes human beings are capable of

without relying on a complete abandonment of anthropocentrism. Braidotti recognises that a complete displacement of anthropocentricism "leaves the Human un-moored and unsupported" (145), but she recognises that the very epistemological foundations which she critiques are nonetheless necessary, thus one may assume that like Atwood, posthumanists who focus on the philosophy of the human believe that human beings are capable of positive behaviours without interference in our genetic makeup as their posthuman vision is based on an altered worldview and not on changes to our genetic makeup. What I wish to draw attention to are the parallels between the limitations observed in contemporary posthuman theory and Atwood's balanced exploration thereof. Ultimately what Atwood provides her readers with is "a model by which to imagine enacting change in our own society" (ii), without attempting to abandon the aspects of our humanity which are embedded in our collective unconscious.

Unlike Philosophical and Critical posthumanism, transhumanism is deeply concerned with changes to the human genome. The aforementioned approaches base their critique of transhumanism on its sole focus of physically enhancing the human as they view this as being uncritical of the previously mentioned issues pertaining to the notion of the human (76). Thus, the posthuman produced through techno-scientific intervention might not be encumbered by the physical limitations of the human, however, problematic epistemological foundations might become further cemented. Because the notion of the posthuman is not fixed, differences in its manifestation are possible. These differences could give rise to dualisms and consequently grounds for othering. An exploration of the human and ultimately the posthuman as concepts that appear in Atwood's *MaddAddam* trilogy is beneficial in identifying her position with regard to contemporary transhumanist theory. Like Philosophical and Critical posthumanists Atwood is sceptical of a posthuman shift dictated by scientific intervention in the human evolutionary process. Atwood suggests that considering human psychology is paramount, not necessarily because this will alleviate any problems that might arise in the corporeally enhanced human, but because this aspect of the human condition simply cannot be ignored. This is evident through the genetically engineered Crakers as they slowly regress toward the human qualities which Crake deemed as flawed such as religion, symbolism and hierarchy, once again highlighting that certain aspects of the human cannot be eradicated, be it through philosophical enquiry or through genetic interference.

The Human/Animal Relationship

There exist many debates surrounding the issue of animal rights and how human beings should interact with creatures from different species. A common point of departure for this argument is the overreferenced scripture taken from Genesis,

> And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth. So God created man in his own image, in the image of God created he him; male and female created he them. And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth. (*King James Bible,* Genesis. 1. 26-28)

This scripture is often interpreted in such a way as to excuse the enactment of environmentally harmful anthropocentrism. However, an exploration of the relationship between humans and animals can be conducted from when these interactions first began over two million years ago. In fact, some of the oldest known artworks created by human beings are cave drawings which include depictions of animals. The polytheistic religion of ancient Egypt, which predates Christianity by approximately three thousand years, involved the worship and reverence of nonhuman animals, not to mention similar animisms in all pagan religions and cults. Despite the fact that explorations of the human/animal relationship predate that explored in the above quotation, an exploration of Christian doctrine in relation to the human/animal relationship is relevant due to its prevalence in Atwood's texts. While Atwood does not shy away from critiquing Christianity's role in promoting harmful attitudes to the natural world, her focus is largely focused on the Bible's constant emphasis on compassion and kindness. Many scriptures personify nature as being capable of praising God, "Let the heavens rejoice, let the earth be glad; let the sea resound, and all that is in it. Let the fields be jubilant, and everything in them; let all the trees of the forest sing for joy" (Psalm 96:11-12), not only drawing attention to a connection

between God and nature but also presenting nature as a living thing and not an object to be abused by human beings.

Philosophical posthumanist Ferrando once again draws on feminist theory to explore the notion of the human in relation to the nonhuman, this time from the work of Luce Irigaray. Unlike de Beauvoir, Irigaray does not view the woman as being the other, rather she goes a step further and describes the woman as the absence, "the woman is not essentialized in her differences from the man, but it is posed as an absence to validate the existence of man through male terms and projections" (141). Ferrando explains that the notion of the human "has been established in the ontological denial of the nonhuman" (141). Again, while the work of posthumanist thinkers such as Ferrando is an important part of understanding why the notion of the posthuman has come to be, these explorations are in many ways sweeping generalisations which are not necessarily applicable to all notions of humanity. Here we see how Atwood's work diverges from this posthumanism as she acknowledges that human interactions with animals have not always been exploitative in nature and that a distinction should be made between harmful anthropocentrism and versions rooted in our irrepressible survival instincts. What Atwood draws our attention to is the problem with the nature and scale of human exploitation of the natural world. Thus, she suggests that the issue is not the fact that human beings use nature to survive, rather critique should be aimed at industrial mass society. Nonetheless it is true that human beings have distinguished themselves from other life forms through the practice of 'othering' as well as through a sustained human/nonhuman dualism. I would argue that the hostile nature of this relationship has progressed beyond this binary in a gratuitous attempt to maintain the exploitative relationship that humans have with the natural world. This binary has been reinforced by skewed, anthropocentrically-interpreted Biblical doctrine such as that explored above which places emphasis on the suggestion that God created the natural world for humans to use as they wish. This is rooted in the notion that man is the highest form of creation, made in the image of God. This links back to colonial discourse as the above acts as a justification of the exploitation of colonised lands. Furthermore, Christian doctrine was believed to be superior to all other cultures, justifying attempts to reform cultural practices deemed "savage". With that being said, there are and have been many instances of intimacies between humans and the natural world which are not or have not been exploitative in nature. We see these intimacies in instances

of the domestication of animals such as humans raising bees (Benor 1). These intimacies exist on a larger scale amongst traditional societies which continue to coexist with the natural world. Colding and Folke refer to these societies' relationship with the natural world as "invisible systems of local resource management and biological conservation" (qtd. Kideghesho 1862). This conservation stems from the mythicising of various natural spaces, as well as sustainable hunting and resource usage (1863). Furthermore, as previously explored Biblical scripture insists on compassion and kindness. We see, then, that it is the interpretation of these scriptures which ultimately leads to problematic behaviours rather than the actual content of these scriptures. Through the God's Gardeners Atwood explores the ways in which human beings are capable of living harmoniously with nature while still ensuring the survival of the human group, however, she points to the fact that these relationships are largely only achievable within certain settings. Atwood highlights the shortfall of Critical and Philosophical posthumanism in its suggestion that we can adopt a post-anthropocentric way of life while still immersed in a societal space characterised by industrial massification. Instead, Atwood shows us that in order to coexist with nature we would either need to create enclaves within this society, such as the rooftop garden of the God's Gardeners, or dismantle of our current society and return to the pastoral, both of which have pros and cons. The God's Gardeners isolate themselves from society and deprive themselves of the conveniences which surround them, however, they are still able to live a more environmentally sustainable and self-sufficient life. In the final text we see coexistence with the natural world, however we know that this is a result of a worldwide pandemic and that this way of life is exceptionally challenging. Atwood also explores the exploitative relationship that humans have with the natural world through her descriptions of the destruction of natural spaces and the decimation of nonhuman species as well as through her exploration of genetically engineered nonhuman animals created purely to serve a human need. She does, however, also explore mutualistic ecological interactions through the God's Gardeners. In doing so Atwood suggests that our inclination towards survival is natural, what is problematic is the scale at which mass industries exploit nature to satisfy our "needs".

Just as humanism historically tended to view Europe as a benchmark for humankind, 'Man' has become the measure of all things within the natural world. Robert Pepperell describes Protagoras' declaration, "Man is the measure of all things" as a maxim "taken as the

quintessential humanist statement" (159). Unlike our relationship to other human beings, the human relationship with nature is not only hierarchical, rather it is all too often a dichotomous reduction of the natural world to a nonentity. Braidotti describes the longstanding exploitation of animals by humans saying,

> Since antiquity, animals have constituted a sort of zoo-proletariat, in a species hierarchy run by the humans. They have been exploited for hard labour, as natural slaves and logistical supports for humans prior to and throughout the mechanical age. They constitute, moreover, an industrial resource in themselves, animal bodies being primary material products starting from milk and their edible meat, but think also of the tusks of elephants, the hides of most creatures, the wool of sheep, the oil and fat of whales, the silk of caterpillars, etc. (70)

Unlike extinctions which have occurred in the past as a result of natural phenomena, we are currently living through what has been termed "the sixth great extinction" (Howells 83), whereby the destructive behaviour of human beings is the main driving force behind this devastation. Atwood's exploration of the human/animal relationship takes place on three levels across the texts. The first is a disregard for non-human and even human life, the second is a recognition of this disregard and the ways in which this might be amended and finally the third is an exploration of a world in which humans, posthumans and non-humans live in a more symbiotic manner. In *Oryx and Crake* she explores the ways in which we have exploited animals and "littered the world" with hybrid creatures created through unnecessary scientific interference in the natural world (Bahrawi 252). Atwood draws our attention to the "inextricable link between living organisms and capitalism" (Sanderson 222), clearly depicting the ways in which harmful anthropocentrism is largely fuelled by mass society and how this devaluation of life crosses the species boundary and extends into a commodification of human life (222). Bahrawi also discusses Atwood's exploration of the human/animal relationship as it exists in *The Year of the Flood* by drawing parallels between Atwood's Waterless Flood and the biblical story of Noah. He explains that in the Bible the flood is owed to humanity's wickedness (257), however, in Atwood's text Adam One explicitly states that the metaphorical flood is owing to "those who have broken trust with the Animals" (91). He continues, "The biblical narrative of Noah's

disaster accords God a greater role in the destruction of the earth whereas Adam One's sermon sees humanity as being solely responsible for its own unravelling" (257). Furthermore, Bahrawi explains the way in which Atwood points to the animal that exists within us, or "our Animal inside" (261), shifting towards a post-anthropocentrism in which we recognise ourselves in nonhuman creatures as well as the humanness of nonhuman animals. Finally, *MaddAddam* presents us with a world in which the societal structures which exacerbated the exploitation of animal life have collapsed, leaving the human survivors to fend for themselves. In this setting Atwood clearly depicts the enactment of her post-anthropocentrism whereby the human/animal relationship still aids the survival of the human beings, but is carried out in a sustainable manner. The claim of human superiority is difficult to refute because it is based on criteria set out by human beings. While I could argue that progress is subjective, it is difficult to challenge anthropocentric beliefs because of the extent and rapidity of human progress. I agree with Mary Midgley's distinction between anthropocentrism as it is applied to the personal, versus the application of the concept to our species as a whole, whereby humankind is viewed as "the absolute, objective center of everything" (qtd. Moore 6). A wholesale abandonment of anthropocentrism is not necessarily helpful, and in some ways not entirely possible. Our 'selfishness' in our need for food, water and shelter is a product of our survival instincts, this cannot and should not be changed. Furthermore, self-interest rooted in survival instincts is of course natural and not a solely human phenomenon. We are, by evolutionary default, concerned for human welfare, however in equating anthropocentrism to these legitimate concerns, we fail to consider that value does not only lie in human beings (Kopnina et al. 113). Hayward explains that while ontological criticisms of anthropocentrism are difficult to refute, the promotion of "human interests at the expense of the interests or well-being of other species or the environment" is a fair, ethical criticism to make (52). In her Critical posthumanism Rosi Braidotti too proposes post-anthropocentrism as a means of displacing "the dialectical scheme of opposition" and "replacing well-established dualisms" with egalitarianism based on the life-force that exists across species (71). She asserts that we share a bond with animals based not only on our shared habitat, but also on the aforementioned life-force, and that recognition of this "vital interconnection [which] posits a qualitative shift of the relationship away from species-ism" (71). Atwood explores this throughout her trilogy, particularly through the God's Gardeners as this group embodies a recognition of the life-force shared between all living creatures. Although the

sect is largely based on Christian teachings, their belief in the value of all life is in many ways a reanimation of pagan animism, which posits that each aspect of our natural environment possesses a life-force or spirit. Atwood's explorations allow for us to rethink our relationship with nonhuman animals, suggesting that a posthuman shift which considers human psychology could be more beneficial in overcoming human problems.

The Human in the Environment

> *For carelessly cutting down forests and spilling garbage in the sea. For poisoning aquifers and ruining habitats. For changing the very air we breathe. For causing temperatures to soar, glaciers to melt, seas to rise and deserts to spread. For letting the planet's web of life get winnowed down, through biodiversity loss, till it's a fragile lattice, torn by any breeze. Most animals have the sense not to foul their own nests.* (Brin 25)

Whilst there are those who have tried, it has become nigh impossible to ignore the link between global warming and human actions. We are made aware of the effects that these actions have on the natural world through the various proofs presented to us: news bulletins, statistics, photographic evidence, scientific journals and documentaries. In telling a story of a near future, it is not possible to avoid the issue of ecology. While it is certainly a chosen narrative in the case of Atwood's texts, it is essentially the greatest plight faced by the human race collectively, making it a difficult topic to circumvent. I explained in my introductory chapter that literature should not be reduced to its "usefulness", however I do believe that Atwood's *MaddAddam* trilogy presents us with artistic proofs of the nature and consequences of human beings' disregard for ecology. This is not done in an attempt to alter behaviour, as despite its compelling nature, literature is often unable to do so. Instead, these texts do what the aforementioned proofs do not, which is decentralise the human. In his speech entitled "Man's Greatest Illusion", Professor of history Robert Livingston explains,

> There is in all of us a kind of subconscious vanity, though a better name could perhaps be found for it. We cannot bear to think that we are cosmically unimportant. We can, of

> course, no longer believe, as our forebears believed up to some ten generations ago, that we are, literally, at the center of the physical universe. Nevertheless, it is still possible for us to believe that we are at the apex of creation. In what we know about the universe, to be sure, there is no good reason whatever for believing this. (Qtd Moore 4)

As explained previously, it is fair to argue that at least a degree of anthropocentrism is natural and necessary as its complete absence might give rise to ubiquitous misanthropic feelings of self-hatred and self-loathing; furthermore much of our survival instinct is rooted in this phenomenon. Tim Hayward writes about anthropocentrism as being a "misunderstood problem" explaining that ontologically anthropocentrism is not necessarily a harmful thing. A degree of self-interest is necessary, at least in the sense that our understanding of our reality is shaped based on our position within it (Hayward 51). Moore explains that because human beings are "uniquely self-conscious" it would be impossible to be entirely non-anthropocentric (6). Val Plumwood explains that choosing to embrace a worldview that aligns with Braidotti's post-anthropocentrism would not force a choice between "self-abnegation or egocentrism" (qtd. Moore 7). Instead, post-anthropocentrism challenges "human dominion", and acknowledges "the multitude of interactions and mutual interdependencies between humans, nonhumans and their environment" (qtd, Moore 19). She suggests that as we advance toward a posthuman future, anthropocentrism needs to be reconsidered because the notion which is essentially at the centre of this worldview is changing. Atwood challenges anthropocentrism through giving a voice to radical environmentalism. However, she displays its necessity through depictions of masochistic behaviour in the absence of anthropocentrism, as well as through our natural inclination towards survival. We see the enactment of masochistic behaviours through the God's Gardeners who deprive themselves of worldly pleasures while still being consumed by a desire for these things. The human inclination towards survival is seen particularly through the character of Toby as the reader witnesses her cognitive dissonance with regard to her Gardener beliefs, which at times are in conflict with the actions she carries out in an attempt to survive in the post-apocalyptic setting. The negative effects that the actions of human beings have had on the environment are as a result of mass-scale dominance and a denial of our dependency on the environment (Moore 7). It appears that many fail to recognise the severity of this largely self-inflicted environmental predicament in which we find ourselves. Hayward explains that this is mainly as a result of

"failing to distinguish between legitimate and illegitimate human interests" (51). Despite our intelligence as a species and the fact that evidence of this decline is all around us, human beings continue to carryout destructive behaviours rooted in skewed anthropocentric beliefs. Over and above this we often contradict our own anthropocentric way of thinking in excusing errors with "I'm only human", yet our beliefs of superiority are based on this very premise. Thus, we see that there is a version of anthropocentric thought that is based on a false, contradictory sense of self-interest, susceptible to speciesism and human chauvinism (50). With that being said, much of the large-scale destruction inflicted on the natural world is to the result of population growth, industrialisation, excessive consumerism and massification.

The Human Absence

> *To dream of the universe is to know that we are small and brief as insects, born in a flash of rain and gone a moment later. We are delicate and our world is fragile. It was the transgression of Galileo to tell us that we were not the center of the universe [an idea that] even in our own time…is treacherous.* (Hogan 126)

Earlier I spoke about Atwood decentralising the human in her texts. The main way in which she does this is through depictions of a world wherein the human population has been greatly diminished and nature has taken over. While some texts, such as Cormac McCarthy's *The Road,* present the post-apocalyptic world as totally ravaged and uninhabitable, Atwood takes a different approach. The world presented to us before the "chaos" or the apocalypse is characterised by pollution, overpopulation, urban sprawl and ecological deterioration. After these catastrophic events we witness a steady return of the natural,

> The buildings that didn't burn or explode are still standing, though the botany is thrusting itself through every crack. Given time it will fissure the asphalt, topple the walls, push aside the roofs. Some kind of vine is growing everywhere, draping the windowsills, climbing through the broken windows and up the bars and grillwork. Soon this district will be a thick tangle of vegetation… It won't be long before all visible traces of human habitation will be gone. (221-2)

In presenting the reader with a world, within which the role of the human being has been diminished, we are faced with the uncomfortable realisation of our smallness (Moore 3). While this might sound contradictory as I have just explained the drastic impact that human actions have on the natural world, the very notion that we are capable of "destroying" or "saving" the planet is in itself rooted in negative anthropocentric thought. We are capable only of destroying the ways in which the planet serves our needs. By the same token, our interest in saving the planet is largely rooted in our desire to preserve that which sustains us. In defence of anthropocentrism not rooted in human chauvinism or speciesism, Hayward explains that one of the main reasons human beings should be concerned with preserving ecosystems is because these systems are the "life-support" for humans (qtd. Kopnina et al. 112). Environmental preservation rooted in self-interest is probably the most effective way to encourage environmental consciousness because of our inclination towards survivalism. Atwood explores a shift in the relationship between humans and nature in *Oryx and Crake* through the character of Jimmy, later Snowman. This rechristening is in itself indicative of a shift in values and cognition. Jimmy occupies a world in which human beings exploit and abuse nature, while Snowman lives within nature, exposed to its harshness. Despite his difficult living conditions, Snowman is able to lament in its "luxurious" (267) smells, rhythmic sounds (3), and "luscious" (41) scenes. He questions, "After everything that's happened, how can the world still be so beautiful?" (371). This anthropocentric inclination towards beauty further highlights how anthropocentric thought is not always destructive, and how in this instance the desire for beautiful things is not focused on the material but on an appreciation for nature. This kind of anthropocentric thinking can manifest in a human desire to preserve the natural world.

Another interesting point observed by Bruun-Jensen is the rapidity and ferocity with which climate change fuelled by human actions is taking place. He draws on philosopher Alfred N. Whitehead's description of the rate of progress in the West as being so drastic that individuals are "called upon to face novel situations which find no parallel in his past" (53). By the same token, the rate of climate change is so drastic that while the consequences thereof can be predicted, we cannot be certain of exactly what will become of the environment or of human

beings in this environment. Fiction centred around climate change can act as a characterisation of the potential outcomes of these climate disruptions brought on by human activity (53). While Atwood is explicit in suggesting that human beings are the reason for ecological destruction and that apocalypse will likely occur as a result of human action, she makes it clear that we are not going to end life on this planet, and that nature will continue. An excerpt from *The Year of the Flood* perfectly sums up this section by reflecting on the self-destructive nature of anthropocentrism and the true fragility of humanity,

> Whenever we are tempted to become puffed up, and to see ourselves as superior to all other Animals, we should reflect on our own brutal history. Take comfort in the thought that this history will soon be swept away by the Waterless Flood. Nothing will remain of the Exfernal World but decaying wood and rusting metal implements; and over these the Kudzu and other vines will climb; and Birds and Animals will nest in them…For all works of Man will be as words written on water. (373)

Technoscience and the Posthuman

> *This isn't about science, Roger. This is about you actually believing that death is beneath you*. ("The Longevity Initiative" *The Blacklist)*

We occupy a time not only marked by the profound effect of human activity on the planet, but a time of rapid technological advances (Pepperell 161). Both epistemological and ontological foundations are shifting as a result of advanced information technologies and biotechnologies. Robert Pepperell describes the posthuman condition as comprising three main components, the first being a shift away from a human-centred universe, the second pertaining to the evolution of life, and the final component being the way in which we conduct ourselves, particularly in relation to the natural environment, nonhuman animals and one another (171). While this seems a fair and all-encompassing approach to the posthuman, there is a different technological approach which also needs to be considered. The term 'posthuman' in the popular understanding, is that it is the product of scientific and technological intervention resulting in the creation of "persons of unprecedented physical, intellectual, and psychological ability, self-programming

and self-defining, potentially immortal, unlimited individuals" (qtd. Pepperell 170). This posthuman vision is "mostly biological in form" and at some point, may become "wholly postbiological" through the hypothetical transfer of the human mind onto computational devices, a process referred to by transhumanists and the genre of science fiction as "mind uploading" (qtd Pepperell 171). This thesis will show that Atwood is critical of this techno-scientific approach to posthumanism in the *MaddAddam* trilogy, while analysing the significance of her critique.

Transhumanism

This technological posthumanism is often also termed transhumanism. Coined by eugenicist and evolutionary biologist Julian Huxley, the term 'transhumanism' was first used to define Huxley's vision of "evolutionary humanism", described as a deliberate effort by humanity to "transcend itself—not just sporadically…but in its entirety" (qtd Hansell 20) by "attempting to overcome its limitations and to arrive at fuller fruition; it is the realization that both individual and social developments are processes of self-transformation" (qtd Sorgner 2). The term "transhumanism" is defined by Sorgner as, "a cultural movement which affirms the use of techniques to increase the likelihood that human beings manage to transcend the boundaries of their current existence. It is in our interest to take evolution into our own hands" (Sorgner 1).

As its prefix suggests, transhumanism is that which goes beyond the limits of humanism. However, it should not be viewed as that which replaces humanism, rather it is that which continues it. Max More explains that it is possible to identify values, themes and interests that exist across all varieties of transhumanism, the first being its roots in enlightenment humanism (37). The transhumanist sense of posthumanism "derives directly from ideals of human perfectibility, rationality, and agency inherited from Renaissance humanism and the Enlightenment" (Wolfe xiii). More explains that from secular humanist philosophy, transhumanism draws on autonomy, reason and technology to create better futures for humanity (37). However, More goes on to describe humanism as relying solely on "educational and cultural refinements to improve human nature" (37). Transhumanists believe that "low-tech" endeavours such as educational and cultural refinement have limits (Bostrom 4). They go a step

further by exploring the possibilities in overcoming biological and genetic limitations. More explains that "Transhumanism differs from humanism in recognizing and anticipating the radical alterations in the nature and possibilities of our lives resulting from various sciences and technologies" (qtd. Ferrando 78). Therefore, instead of simply viewing the movement as a kind of humanism, one might call it an "ultra-humanism" (78). Posthumanist philosophers such as Francesca Ferrando, Rosi Braidotti, Cary Wolfe and N. Katherine Hayles argue that we can be posthuman now or that we have always been posthuman as to them this shift is largely philosophical in nature, More explains that what we can be now is transhuman:

> We are transhuman to the extent that we seek to become posthuman and take action to prepare for a posthuman future. This involves learning about and making use of new technologies that can increase our capacities and life expectancy, questioning common assumptions, and transforming ourselves ready for the future, rising above outmoded human beliefs and behaviours. (qtd. Pepperell 170)

This can be misleading in its claim to be "rising above outmoded human beliefs and behaviours", as the movement pays little attention to human psychology, a critique Atwood makes clear throughout her trilogy. Transhumanism in no way addresses beliefs or behaviours related to our exploitative relationship with the natural world. Echoing Ferrando's view of transhumanism as an "*intensification* of humanism" (xv), Wolfe goes so far as to describe transhumanism as the opposite of posthumanism. Hayles explains that this vision of the posthuman is not necessarily "post" the notion of the human, as through their desire for human enhancement, the movement does "not [abandon] the autonomous liberal subject but [expands] its prerogatives into the realm of the posthuman" (287). There are, however, varieties of transhumanism which are not rebarbative and which do not view the human as "outmoded". Some varieties are much more restrained in their view of what the posthuman will be, however, a trend recognised amongst each variety is the inclination towards carrying out some version of what can best be described as utopic idealism.

As explained above transhumanism should not be viewed as a single movement, but rather as heterogenous. There exist Democratic Transhumanism, Libertarian Transhumanism,

Singularitarianism, and Extropianism. While each differs on its views of the rate, forms and risks of scientific and technological progress, all varieties share the view that this progress is not only possible but desirable (More 57). Democratic transhumanists argue that while human enhancement is desirable, the technologies that will eventually make this possible should be accessible to all rather than only to the economically and politically powerful (Ferrando 75). Libertarian transhumanists view the free market as the best way to ensure the right to human enhancement (75). These two approaches appear to perpetuate the aforementioned issue with mass society which is the commodification of life. Singularitarianism is a movement formed out of conjecture about the technological singularity. The singularity refers to a hypothetical near future in which technology and artificial intelligence are more intelligent that human beings and therefore independent of human control. While this sounds like a cause for concern, the Singularitarian movement views the technological singularity not only as imminent but also as desirable. They argue that it is something that is bound to happen, thus the process might as well be superintended by humans to ensure that the singularity is advantageous to us. It is possible to be a singularitarian without being a transhumanist; such singularitarians expect that the singularity will be categorised by the advent of artificial intelligences far beyond human intelligence, and that human beings will remain the same in terms of our capacities. However, most people who anticipate the singularity are broadly transhumanist, thus viewing the singularity as a catalyst for the corporeally enhanced posthuman (More 761). Unlike other varieties of transhumanism, those who believe in the singularity expect the rate of technological and scientific progress to be rapid. Other transhumanists expect this progress to occur at various rates within various aspects of enhancement depending on the social and economic conditions in which they occur (More 57). While Democratic and Libertarian Transhumanism are mostly defined in relation to their political, social and capital objectives, Extropianism is mostly concerned with philosophy (More 75). Max More, transhumanist and founder of Extropianism, explains that transhumanist philosophy was initially defined by the principles of "extropy" (38). More offers up this term not in opposition to entropy, which denotes the measure of disorder within a system. Rather the pseudoscientific term, extropy, is defined as "the extent of a living or organizational system's intelligence, functional order, vitality and capacity and drive for improvement" (39). The term suggests an orderly and indefinite expansion of life as a result of technology and human intelligence, throughout the universe. The reason I view this term as

being pseudoscientific is based on the fact that everything that it stands for rests on tentative hypotheses. It is based on the supposed nature of a techno-future which does not yet exist and may never come to fruition, at least not in the way that Extropianism suggests. Furthermore, the term is contradictory in its reliance on human cognitive processes in order for this indefinite improvement to take place, processes which transhumanists deem flawed. The principles embodied by Extropianism include "perpetual progress, self-transformation, practical optimism, intelligent technology, open society, self-direction, and rational thinking" (39). The essence of these principles would suggest that Extropianism is closely linked to Libertarian Transhumanism, favouring a free market with no government interference in their quest for 'extropia'. Unlike 'utopia' which can directly be translated to 'no place', a society which is fundamentally impossible to achieve, More explains that 'extropia' describes not an imaginary, static state of paradise but rather the never-ending, ever-distant state of perpetual progress (59). Novels such as Zamyatin's *We,* Huxley's *Brave New World* and Orwell's *1984* present the reader with supposed 'perfect' societies. They explore how the very attempt at creating 'utopia' brings about 'dystopia'. By the same token, I would argue that despite More's statement that 'extropia' differs from 'utopia' based on the progressive nature of the former and the static nature of the latter, the subjective complexion of progress suggests that 'extropia' is also unattainable. Atwood describes her texts as 'ustopias', or "dystopian works that contain 'utopia' elements" (Howells 86), a concept explored in greater detail in the chapters which follow. In doing so, she highlights the dystopic nature of a society overcome by irresponsible science, but how societies filled with this science can easily assume a utopic guise. Beyond the dialectical relationship presented between the geographical spaces within the trilogy (Mustafa 2), the entire trilogy itself is comprised of dialectical relationships. I view these relations as Atwood's attempt to highlight the interconnectedness that exists between humans and the natural world, the human mind and body, and science and religion. Atwood shows her readers that we may need a greater understanding of what is wrong for us to know how things could be right, thus she points to the shortcomings of Critical and Philosophical posthumanism as well as transhumanism in their attempts to consider these phenomena in isolation. Ultimately Atwood's texts are cognisant of these shortcomings, but proactive in bringing these concepts back together, resulting in her own posthuman vision. However, a potential limitation in Atwood's approach is the issue of its sustainability. While approaches which consider principles in isolation are steadfast in their goal, albeit unattainable,

an approach which considers the relationship that exists between principles is constantly negotiating contradictions in search of a balance which may too be unattainable. With that being said this approach is certainly less burdened by potential issues which arise as a result of an ignorance about the interconnectedness of these metaphysical contradictions. One of the greatest criticisms of transhumanism from posthumanists such as Braidotti (42) and Ferrando (75) is the issue of inclusivity and accessibility surrounding posthuman technologies, and how these advanced technologies could sustain or even expand existing socio-economic gaps. Similarly, Atwood's notion of 'ustopia' explains that when "viewed slantwise" these kinds of utopic projects are equally dystopic "from the point of view of people who don't fit into their high standards of perfection" (110). An extract from Atwood's *In Other Worlds* explores her concerns regarding transhumanism's utopic project in greater detail with reference to *Oryx and Crake,*

> It's interesting to me that I situated the utopia-facilitating element in *Oryx and Crake* not in a new kind of social organization or a mass brainwashing or soul-engineering program but inside the human body. The Crakers are well behaved from the inside out not because of their legal system or their government or some form of intimidation but because they have been designed to be so. They can't choose otherwise. And this seems to be where ustopia is moving in real life as well: through genetic engineering, we will be able to rid ourselves of inherited diseases, and ugliness, and mental illness, and ageing, and … who knows? The sky's the limit. Or so we are being told. What is the little dystopia concealed within such utopian visions of the perfected human body—and mind? Time will tell. (151-2)

Bioethicist James J. Hughes also looks at the issue of human perfectibility, however, in an interview on enhancement technologies Hughes dismisses the label "utopic" being applied to his transhumanist ideals on the grounds of his acknowledgment of the critiques of genetic engineering and human enhancement. He explains that "to be a futurist in the last couple of decades is to acknowledge that the progress that we expect is going to be so chaotic and unpredictable" (Futures). This speaks directly to the above quote by Atwood as she too speaks of the possibilities of human enhancement. However, Atwood presents us with a world in which she has provided her own predictions of this chaos and unpredictability, and according to the *MaddAddam* trilogy simply acknowledging the issues that may arise from this kind of science is

surely not enough to forge ahead. A critical examination of these issues accompanied by possible solutions is necessary.

Human Enhancement (H+)

The perpetual progress which transhumanists seek has the goal of a posthuman free from all human limitations. However, one would be incorrect to assume that the sole interest of transhumanism is the realisation of the advanced human. As explained above transhumanists view themselves as occupying the liminal space between the biologically conventional human being and the anticipated exceptional posthuman being. So, while they are certainly interested in the science and technology that would allow us to become posthuman they realise that this is a process. Even once the posthuman has been achieved, this progress will continue in pursuit of greater intelligence and further removal of limitations (More 39). More explains that people wrongly accuse transhumanism of "seeking a state of final perfection" when their true goal is actually "continual improvement" (59). Transhumanists argue that there is no attainable state of perfection, instead they favour progress that seeks out the continual betterment of the human. This progress begins with human enhancement.

According to transhumanism, human beings are encumbered by social limitations ranging from the thoughts we cannot think, to the feelings we cannot feel, as well as the activities we cannot engage in. Nick Bostrom suggests that these very limitations might impede our capacity to understand not only what it might be like to be a posthuman, but also our ability to understand what a posthuman actually is (4-5). He explains that it is our 'human essence' which prevents us from understanding the "essence of posthumanity". Bio-conservatives such as Francis Fukuyama speak of this same 'essence', arguing that "Underlying this idea of the equality of rights is the belief that we all possess a human essence that dwarfs manifest differences in skin colour, beauty, and even intelligence" (42). This view appears to me to be very much rooted in secular humanist tradition, which is problematic in itself in its limiting suggestion that genes mark the boundary of humanity and that this 'essence' should be preserved simply because it is human (Agar 13). This view closely mirrors Crake's in that it reduces humanity to our genetic material, ignoring the human condition of our psychology. I believe that instead of addressing the ways in

which the ‘human essence’ should be preserved, it might be more beneficial to explore this essence as it is defined by Jung in order to understand the aspects of humanity which exist within all of us and the ways in which Jung’s theoretical collective unconscious steers our behaviour. Transhumanism, however, persists that in order to overcome the problematic aspects of this ‘essence’ we should aim to edit it out of our genetic coding. They fail to consider the psychology such as that presented to us in Jung’s theory of the collective unconscious, thus ignoring the possibility that this ‘essence’ may re-emerge within the posthuman (90).

The transition from the human to the posthuman is evidently a process. Because of this one might question at what point the enhanced human qualifies as posthuman. This is quite complex as transhumanism’s definition of the ideal posthuman is mutable and dependent on the direction that human-enhancing sciences and technologies take. Atwood explores this throughout the trilogy on a variety of levels through both the posthuman Crakers, but also through various human enhancement procedures. Although not Luddite in her views, Atwood appears sceptical about the possibilities of scientifically and technologically guided human evolution,

> They [the Crakers] are designer people. But anyone who engages in such design—as we are doing now—has to ask, how far can humans go in the alteration department before those altered cease to be human? Which of our features are at the core of our being? What a piece of work is man, and now that we ourselves can be the workmen, what peeves of this work shall we chop off? (147)

This concern again links to Jung’s theory as he suggests that our collective unconscious is not genetically inherited, rather it is the ever-present result of evolution. Thus, an interference in this process is ultimately an interference in this connection shared by all human beings, “the most universal thoughts of humanity” (68 Jung).

Post- or Ex- Human

Nick Bostrom paints a very idealistic picture of what posthumanity according to transhumanism might look like up until the point where our limited human brains can imagine no further. He

starts off by explaining that posthumans would surely possess enhanced emotional and cognitive capacities, as well as a far extended health span. He views these three things as the backbone of transhumanism's posthuman vision. He begins his vision of this process explaining that any minor ailments you once had are cured. You look younger, your skin "more elastic". Completing challenging tasks comes naturally to you. You are the centre of attention at any gathering admired by fellow posthumans and ignoble humans alike. You abandon frivolous actives like watching reality television and listening to popular music – instead you write haikus while humming Beethoven's 'Eroica' to yourself. His tone throughout remains quite sarcastic but he unashamedly expresses that these very daydreams surely act as proof that becoming posthuman "could be good for us" (qtd. More 95-6). It is claims such as this that make it difficult to not critique transhumanism as idealistic and utopic. Bostrom defines the transhumanist idea of the posthuman saying,

> I shall define a *posthuman* as a being that has at least one posthuman capacity. By a *posthuman capacity,* I mean a general central capacity greatly exceeding the maximum attainable by any current human being without recourse to new technological means. (More 88)

The above definition in many ways echoes that of superpowers – as such, transhumanism can be viewed as a utopian project. If we consider this transhumanist vision from the point of Atwood's ustopian sensibility, we can assume that there exists a deep fear of human fallibility and imperfection lurking behind this desire to perfect the human being. Bouzet explores this saying, "Humans seem ready to do whatever they can to save themselves and to perfect their species, sometimes at the cost of their own humanity" (51). He explores the fears which lurk behind this desire, "A fear of death and a strong desire to be invincible lead humans to explore various ways to help them live longer" (7). We see this fear through the character of Crake as his desire to create a perfect human being also stems from his belief that humanity as it currently exists is doomed. Joel Dinerstein highlights the difference between "classical utopias" and the transhumanist utopian vision, "while the first one hypothesised the improvement of society, leaving the human person substantially unchanged, transhumanism considers its ultimate goal the enhancement of the human being as an individual, placing its social dimension into the

background" (qtd. Paura 27). Here we clearly see the shortfall of this vision in its failure to consider the social context in which the 'human' takes place. Similarly, Crake's utopian vision carried out through his Paradice Project failed to consider the social context in which his enhanced creations would exist. This once again points to Atwood's exploration of 'ustopias', the inevitable dystopic element in utopic visions. It also points to the Jungian psychology present in the trilogy, as the human quest for meaning (in the form of religion, storytelling and mythology) is ever-present despite Crake's best efforts to edit it out of the Crakers.

When reading about transhumanism's vision of age defiance, extreme intelligence and superior physical capacities, the terms robot, cyborg and artificial intelligence come to mind. The terms robot and android are interchangeable; both referring to a computer programmed machine which despite having the resemblance and capabilities of a human is purely made up of mechanical parts. Artificial intelligence (more commonly known by its initials AI) is quite similar, except for the fact that it does not necessarily have to take on the appearance of a human being. Rather it is the simulation of human intelligence by a machine. The term cyborg is a contraction of cybernetic organism (Haraway 149). A cyborg is defined as an organism comprised of biological and technological components, a combination of both machine and living organism (149). While this definition is widely agreed upon, the characterisations which follow differ greatly from one definition to the next. Many of these definitions begin with a parenthesised "in science fiction". Others with "hypothetical or fictional creations". Often cyborgs are defined as "creatures". Those conscious of political correctness swap "creatures" with "hybrid beings"; out of consideration for "hybrid beings" such as Neil Harbisson. Harbisson, an advocate of trans-species rights, has been described as the world's first legally recognised cyborg after he had an antenna implanted in his head. Katherine Hayles explores the cyborg as a connection between the organic body and prosthetic extensions (2). The definition of the cyborg becomes more fluid as technology "loses its body" (Hayles 2). This makes making a clear distinction between an organic body and technological components more difficult, furthermore it suggests the title of Sorgner's book, *We Have Always Been Cyborgs,* to be accurate. Some definitions speak of cyborgs as existing "with us in everyday life in the form of mechanical elements (such as prosthetic limbs) incorporated into the human body" (Oxford Reference). In an article on assistive technologies and inclusion, people with assistive technologies were referred to by the not-so-flattering term "low-tech

cyborg" (Kath, Neto & Buzato 679). This is greatly disputed for many reasons, the first being that cyborgs are widely accepted as possessing abilities that far exceed those of human beings; a cyborg has "abilities above and beyond those exhibited by either its biological or its technological parts alone" (ScienceDirect). Secondly, persons aided by assistive technologies rely on the mechanical elements incorporated into their bodies to perform functions that human beings are typically able to perform without assistance. Assistive technologies aim to overcome social exclusion, therefore labelling people with these technologies as cyborgs only further problematises the already exclusive notion of the human.

The media and entertainment industry has not conditioned us to imagine the posthuman as a being free from anthropocentric, humanist and dualistic thought, much to the disappointment of posthumanist philosophers such as Francesca Ferrando and Rosi Braidotti. The very mention of words such as 'entertainment', 'cinema' and 'fiction' might beg the question of how realistic transhumanist thinking is. When reading about "space colonisation and the creation of rich virtual worlds" (38) in More's *The Transhumanist Reader* I couldn't help but think to myself, 'Is this the plot of *Blade Runner*?'. Many aspects of transhumanism appear to be based on an overactive imagination, such as cryogenics and mind-uploading in their quest for immortality. With that being said, in a very short space of time technology has advanced exponentially and many of the enhancements proposed by transhumanist thinkers are highly plausible and perhaps already in the early stages of development. While both transhumanism and more philosophy-based varieties of posthumanism are both utopic in their posthuman desires, it appears that the transhumanist goal is in many ways more attainable than that of Critical and Philosophical posthumanism. I say this because of the previously mentioned rapidity of scientific advancements which would in turn make the corporeal enhancement of the human body far more likely than a mass ontological shift towards post-anthropocentric thought. Advancements in the medical field such as improvements to the aforementioned assistive technologies, or to medical procedures and treatments seem not only plausible but highly advantageous in their ability to improve quality of life, while concepts such as life-suspension and age reversal seem dubious. My distinction between plausible and dubious is based on a subjective distinction between that which can improve one's quality of life and that which is a conceited attempt at immortality;

however, Atwood's grotesque depictions of cryogenics and age-defiance further solidify my distinction. Sceptical of all things transhumanist, Francis Fukuyama explores this saying,

> It is tempting to dismiss transhumanists as some sort of odd cult, nothing more than science fiction taken too seriously…But is the fundamental tenet of transhumanism – that we will someday use biotechnology to make ourselves stronger, smarter, less prone to violence and longer-lived – really so outlandish? (42)

Donna Haraway, author of *Simians, Cyborgs and Women*, views the terms 'cyborg' and 'posthuman' as being roughly synonymous. Transhumanist thinker, Sorgner, explains that learning a language is essentially the "first human upgrade" (9). Transhumanist Max More aims to clarify this blurred line by distinguishing between what he terms the 'cyborgisation' versus the 'transhumanisation' of the human body. As previously discussed, a cyborg is defined as the amalgamation of machine and man, resulting in a being capable of abilities far beyond those of either its biological or mechanical parts alone. More explains that the 'cyborgisation' of the body would simply involve the successful implantation of mechanical parts into the human body, or human parts into a machine. He describes this process as being solely focused on appending physical attributes (38). On the other hand, 'transhumanisation' proposes "an intervention of biology in modifying corporeality, extending the biological lifespan, and preserving the brain by transfer onto non-biological platforms" (38). He explains that the Extropian branch of transhumanism is less interested in the incorporation of the machine into the human body or human body into the machine and more with the application of science and technology to the human body, for example biotechnology and genetic engineering. This is the kind of science and technology that we read about in the *MaddAddam* trilogy through Crake's creation of the genetically modified Crakers. Natasha Vita-More expands on this as she explains that transhumanists do not seek the creation of a new species, the cyborg. Instead, they aim to enhance the human rather than erase it (72). Vita-More describes the cyborg as a "disembodied entity". She goes on to explain that 'cyborgisation' is "an erasure of the human form" (72), while 'transhumanisation' is focused on "elevating the human condition", "trans-biological form" (72). Vita-More is suggesting that the cyborg is a new form, its additional parts independent of the original being's consciousness. Transhumanists, on the other hand, view the posthuman as the

continuation of one's personal existence. 'Transhumanisation' is, then, more of an evolutionary intervention. The limitations of transhumanism as expressed by posthumanist theorists extends into Atwood's trilogy as she too questions the utopian project proposed by this approach. Through the character of Crake, Atwood explores the hubris behind the desire to alter the human condition. She does this through a careful construction of Crake's character which gives us insight into the reasons behind his desires to "fix" the world by playing God. Furthermore, Atwood questions the overall success of the pursuit of a posthuman era commenced by scientific intervention which fails to conduct a thorough examination of human psychology. Like transhumanists, Crake is exceptionally critical of the shortfalls of the human physical condition and aims to elevate the human condition. However, through the Crakers Atwood shows us how a failure to consider human psychology, particularly our collective unconscious, ultimately leads to a re-emergence of the human condition rather than an elevation of it.

Transhumanism and the Environment

I do not agree with Fukuyama's view of transhumanism as "the most dangerous idea in the world" (qtd. Hansell et al. 13). I do not favour Luddite mentality in response to all that is wrong with transhumanism. Furthermore, technology has progressed past the point of forestalment, therefore simply suggesting that technology is "bad" is not only untrue but also futile. Technology has transformed human life in many ways, and while some of these transformations might yield negative outcomes, it is difficult to deny the ways in which it has contributed positively to our existence. Technological advancements in healthcare, education, communication, and transport have made our lives easier and better in many ways. However, Atwood explores the capricious nature of progress in her texts. She examines the fine line between progression and regression, and how progression in areas pertaining to science, technology and economy is typically carried out at the expense of ecology. Hava Tirosh-Samuelson describes the posthuman age as a time by which "humans will no longer be controlled by nature; instead, they will be the controllers of nature" (20). While we have not yet reached the posthuman age, we have already reached the informal geological era which "marks the extent of the impact of human activities on a planetary level" (Ferrando 57): the Anthropocene. I would argue that we currently live with the illusion of control over the

environment, however I share Atwood's character, Crake's, view that "The whole world is now one vast uncontrolled experiment – the way it always was, Crake would have said – the doctrine of unintended consequences in full spate" (228). It becomes evident, then, that striking and maintaining balance is the most desirable but equally challenging approach. The solution to the techno-idealism of transhumanism is evidently not Luddism. Rather a middle ground is the recognition and acceptance of the scientific and technological turn that the world has taken paired with an active observance of the potential dangers of this science and technology. Moreover, a positive posthuman turn will acknowledge and remain critical of harmful anthropocentrism while maintaining an awareness of our tendency towards survivalist anthropocentrism.

Much progress that we witness is in response to the needs of human beings. Our ever-increasing population has ever-growing needs that have to be met, thus destruction in the name of progress becomes difficult to refute. While it is true that in order to keep up with the needs of a growing population progress in certain areas, such as agriculture and healthcare, is necessary, it is unrealistic to think that this variety of progress can continue indefinitely, or that this progression is happening with the betterment of all human beings in mind. I believe that transhumanism oversimplifies the notion of progress and does not fully account for the profit-oriented, individualistic, capitalist ideologies that it accentuates through its utopic ideals. As a result of this, transhumanism and the pursuit of a purely corporeal manifestation of the posthuman tends to avoid addressing the ecological implications that human beings, and ultimately posthuman beings, have and will continue to have on the environment. In their quest for extended lifespan and ultimately some version of immortality, transhumanists fail to overtly address how this will exaggerate the issues of overpopulation and dwindling resources. Rather than promoting investment into green technologies or remedies for the environmental destruction we have caused, they aim to steer our evolutionary path in a direction which may well further this destruction. Beyond the environmental implications of this posthuman vision, transhumanists fail to consider human psychology in their proposals of human enhancement through genetic intervention. Atwood suggests that this failure to consider the human mind, particularly our collective unconscious which gives rise to the aspects of our nature which transhumanists (and in

the context of the text, Crake) deem as flawed may result in the unintended re-emergence of these aspects.

Posthumanism(s)

> *The humanist era was characterised by certainty about the operation of the universe and the place of humans within it. The posthuman era is characterised by uncertainty about the operation of the universe and about what it is to be human.* (Robert Pepperell, 184)

Explorations of the posthuman are not limited to physically enhancing the human body. In fact, a lot of attention is paid to popular posthumanism or transhumanism, ignoring the more philosophically centred approaches to the posthuman. Approaches to posthumanism such as those proposed by Braidotti, Pepperell, Wolfe, Hayles, and Ferrando foreground the history of the notion of the human and how this influences the shift into the posthuman era, while still considering the possibilities of corporeal enhancements. Posthumanism, like transhumanism, is a hypernym for a variety of approaches. Many of these approaches are concerned with situating the cyborg or the corporeal posthuman within the broader scope of humanities, or rather the "posthumanities". They recognise that the societal, cultural, ontological and epistemological changes which have taken place, and that continue to shift, require us to revisit the ways in which we study these philosophies and phenomena. Philosophical Posthumanism not only aims to situate the posthuman within the posthumanities, but it also puts forward parameters regarding how we might become posthuman without human enhancement. It suggests a reformulation of the notion of the human, and thus a reformulation of worldviews that previously relied on this exclusive notion. While transhumanists argue that instantaneously becoming posthuman is impossible, and instead one can only become transhuman, other branches of posthumanism have differing views regarding the posthuman, however, all amount to the same conclusion which is we can be posthuman now. While this is technically true in that this shift requires no corporeal change to the human genome, the parameters set out in order to achieve this posthuman status are in many ways largely impractical and arguably impossible. Atwood's exploration and critique of this kind of posthumanism largely takes place through the God's Gardeners. Because of the compassionate way in which Atwood presents this fictional religious sect one can assume

that Atwood is more forbearing of this approach, however, the balance of her writing is maintained even in her observations of this kind of posthumanism. Despite presenting the Gardeners in a largely positive light, Atwood does not shy away from critiquing their attempts to abandon anthropocentric thought manifest as self-critical, masochistic behaviours. Furthermore, she explores how the enactment of this type of posthumanism is difficult within the setting of our society, further highlighting its impractical nature. The term "posthumanism" was first used by literary theorist Ihab Hassan to describe the "philosophical need to overcome the human race as well as humanism" (Ranisch and Sorgner 49). This definition is still at the core of the contemporary branches of posthumanism, some such branches include the aforementioned Philosophical Posthumanism, as well as Critical Posthumanism and Cultural Posthumanism. A notable figure in posthuman studies is Robert Pepperell. The reason I have chosen to single out this name is based on Pepperell's more all-encompassing approach to the posthuman. While transhumanists such as Max More and Nick Bostrom seek out a corporeally enhanced posthuman, and posthumanists such as Rosi Braidotti and Francesca Ferrando seek either to situate this posthuman in the posthumanities, or to put forward a purely philosophical approach to the posthuman, Pepperell suggests all of the above. In his book *The Posthuman Condition* Pepperell speaks of the term "posthuman" as defining three things. Firstly, he suggests, the term marks the end of humanism. Secondly, it acts as an attestation to the fact that what we have traditionally understood as 'human' "is now undergoing a profound transformation" (iv). Finally, the posthuman defines the convergence of biology and technology where-by the two are "increasingly becoming indiscernible" (iv). This posthuman vision is more attuned to that of Atwood's as she too considers a multiplicity of factors as opposed to focusing on one aspect. I would argue, however, that Atwood's vision takes this consideration a step further in her aforementioned close consideration of human psychology and the influence that this has and will continue to have on the factors set out by Pepperell.

Post-anthropocentricism(s)

Cultural Posthumanism is a branch of posthuman studies which pays specific attention to the posthumanist turn as it is "enacted within the field of literary theory…[and] cultural studies"

(Ferrando 63). Francesca Ferrando, explains that Philosophical Posthumanism can best be understood as a "post-humanism", a "post-dualism" and finally a "post-anthropocentrism",

> "[it] is an onto-epistemological approach, as well as an ethical one, manifesting as a philosophy of mediation, which discharges any confrontational dualisms and hierarchical legacies" (57)

She continues, saying that while the movement considers the broader significance of technological developments, it cannot be confined to a techno-centric academic movement, as the posthuman should not only be understood in relation to technology (56-7). The movement is a "post-humanism" in its critique of humanism and anthropocentrism. It highlights and critiques the exclusionary practices, such as sexism, racism, ageism and ableism, by which the 'human' has often historically gained its meaning (32). Furthermore, this aspect of Philosophical Posthumanism highlights the "plurality of the human experience" (116). Ferrando explains how the movement's post-dualistic aspect draws on ancient Asian traditions, such as the Taoist principle of yin and yang explored in the introductory chapter (127). This aspect is described as necessary in order to avert the creation of hierarchies and discriminations that could emerge with regard to robots, cyborgs, or corporeal posthumans (127). The third and final aspect to be considered is that of "post-anthropocentrism". Ferrando uses the term to refer to "decentring the human in relation to the nonhuman" (116), and the rejection of species supremacy (15). Braidotti's text, *The Posthuman* foregrounds Critical Posthumanism, and also focuses on a shift away from humanist traditions, dualisms, and anthropocentrism. Braidotti views Critical Posthuman thought as a holistic approach to the "fragmented contemporary strands of posthumanism" (42). In response to dualisms and anthropocentrism, Braidotti draws inspiration from Monism explaining that,

> [It] results in relocating difference outside the dialectical scheme, as a complex process of differing which is framed by both internal and external forces and is based on the centrality of the relation to multiple others. These monistic premises are for me the building blocks for a posthuman theory of subjectivity that does not rely on classical Humanism and carefully avoids anthropocentrism. (56)

She explains that like anthropocentrism, "post-anthropocentrism" can take many forms. Her idea of post-anthropocentrism is centred around the *zoe*, "the dynamic, self-organizing structure of life itself [which] stands for generative vitality" (60). She explains that posthuman theory "contests the arrogance of anthropocentrism" as it "strikes an alliance with… life in its non-human aspects" (66). Through the deconstruction of anthropocentrism and species supremacy, Braidotti explains that posthuman theory also deconstructs the notion of human nature as being distinct from the life of non-humans (65). What we notice is that these posthumanisms do not distinguish between harmful anthropocentrism and the human inclination towards survival, which is in itself a form of anthropocentrism. As such it advocates for a complete abandonment of a worldview rooted in the psyche of each human being, and which ultimately supplements our survival.

Rosi Braidotti goes on to describe the global economy as also being post-anthropocentric in its "structures", however she explains that it is not "post-humanistic", rather it is "deeply inhuman(e)" (65),

> the opportunistic political economy of bio-genetic capitalism induces, if not the actual erasure, at least the blurring of the distinction between the human and other species when it comes to profiting from them…The global economy is post-anthropocentric in that it ultimately unifies all species under the imperative of the market and its excesses threaten the sustainability of our planet as a whole. (63)

We see then that distinctions need to be made not only between different varieties of anthropocentrism but also of post-anthropocentrism/s. There is a form of post-anthropomorphism that calls for alterations to this worldview, but there is also a form of post-anthropocentrism which reduces all life to a commodity. Clearly the equalisation of all living matter is not a helpful response to speciesism and human chauvinism if it does not acknowledge the shared value of all living matter. Instead, it would merely reduce all lives to their vital capacity, circumventing and further perpetuating the ecological concerns that surround anthropocentrism. The post-anthropocentrism which Atwood advocates for in her text is mindful of our survivalist

tendencies, yet critical of speciesism and human chauvinism. It is exceptionally critical of the above-mentioned post-anthropocentrism carried out by industrial massification, which Atwood exposes as the greatest contributor to environmental destruction.

Robert Pepperell explains that the posthuman condition marks "the end of a 'man-centred' universe" (171), thus a shift away from humanism, yet he acknowledges that the ideals of humanism cannot be abandoned instantaneously and that they will continue to exist "well into the future" (171). He suggests that this shift away from humanism has been an ongoing one as a result of movements which directly challenge the "worst aspects of humanist behaviour" (171-2) such as feminism, anti-racism, animal rights movements, and environmentalism (172). Because of this, we see that while Braidotti and Ferrando's proposition of post-anthropocentrism is desirable in many aspects, it can be viewed as idealistic and unattainable. Unlike transhumanism, which emphasises evolution on a genetic level and aims to intervene in biological evolutionary processes, Pepperell views evolution as including "all the paraphernalia of cultural and technological existence" (171), an aspect ignored by Crake resulting in the re-emergence of this within the Crakers. Pepperell's posthumanist vision does not necessarily aim to interfere with evolution, rather it recognises the potential of change and how this change would call for a reassessment of previously held beliefs. Finally, Pepperell defines posthumanism as a reflection of how we live our lives in relation to the planet, animals and other human beings (171). This view is important as it does not foreground the inevitable advancements and possibilities of science and technologies, rather it explores the consequences of these developments, how they might affect human life, and finally the intentions of those behind these developments. This again points to the similarities between the posthumanism which Atwood presents as a middle ground to the other varieties of posthumanism and Pepperrell's posthuman exploration. Atwood's trilogy has been criticised for its "misleading" and "inappropriate" (Griffiths 192) explorations of future sciences and technologies; however, the texts are not necessarily an exploration of possible advancements in these fields. Atwood closely explores the human impact on the environment, the scientists behind scientific progress, the potential consequences of science rooted in hubris, environmentalism, and finally religion. The *MaddAddam Trilogy* is not an exposé on the science of genetics, instead it makes use of literary techniques such as humour, satire and hyperbole to address the potential issues and concerns with regard to this kind of

science. Atwood acknowledges that our shift into a posthuman era cannot and perhaps should not occur on only corporeal or philosophical levels. Rather this shift will occur on many levels. While I am critical of a purely corporeal posthuman, I recognise that the posthuman cannot simply be the result of a reformulation of the notion of the human. Both of these approaches fall short in their utopic visions of a posthuman future which does not consider human psychology and thus the plausibility of their own ideals. While the views expressed by Critical and Philosophical posthumanists appear more moderate than those of transhumanists', specifically in their desire to alter the aspects of our worldview which contribute to our problematic behaviours through a metaphysical inquiry rather than through scientific intervention in the human genome, they are equally utopic in their vision.

Posthumanism and the Environment

As explained earlier, Atwood decentres the human in her texts through the aforementioned reduction of the human population, but also through the introduction of the genetically enhanced Crakers. Ultimately, she highlights the potential effects of enhancing technologies and genetic sciences on human beings, nonhumans and the environment. Atwood does so without defending liberal humanism, rather she closely considers posthumanism in all its varieties, expressing the strengths and weaknesses of each. She does this through her clever narrative structure of the novel which allows for an examination of transhuman beliefs in *Oryx and Crake* followed by an alternative to this approach presented in *The Year of the Flood*. Finally, she provides her own posthuman vision which is an amalgamated version of the above approaches in *MaddAddam*. One of the strengths of posthumanism, which happens to be a shortfall in transhumanist philosophy, is the movement's relationship to the environment. Pepperell writes that the posthuman understands that "Humans and the environment are different expressions of energy; the only difference between them is the form that energy takes" (181). While transhumanists view the environment as an entity separate from the human and thus the posthuman, posthumanism recognises that we do not exist in isolation and that we greatly depend on our environment. Their philosophies explore how this relationship would best be expressed as symbiotic as opposed to exploitative. With that being said, it is not entirely practical to call for retrograde steps to be taken by demonising industrialisation and culture in favour of pastoral life

and nature. While Atwood is certainly not anti-science, she in some ways encourages a move back to the pastoral. The significance of this will be explored in the chapters to follow, however this point highlights a critique of Atwood's own posthuman vision. While the pastoral setting of the final text is in many ways appealing, it is important to remember the extreme challenges faced when living in this pastoral setting. While mass society is certainly to blame for destruction of the natural world and the skewed distribution of resources, we cannot ignore the ways in which this society can also make life much easier. There is a distinct difference between battling the challenges of a capitalist society versus battling exposure to the elements, sourcing and growing one's own food and attempting to recreate the comforts provided by industrial society. Furthermore, the dismantling of this problematic system in the context of the trilogy is owed to the creation of a human engineered plague which wiped out the majority of the human population. This leaves one wondering if we too will have to be at the mercy of a renegade scientist before we will be able to enter a posthuman era such as that presented by Atwood. When considered in a less literal sense, we can see that Atwood's posthuman vision calls for the proper governance of scientific advancements, as well as a recognition of the shortcomings of contemporary posthuman theory. She points to the unsustainable nature of human activity while observing the difficulties in dismantling the systems by which this unsustainable activity has been carried out. Finally, she draws our attention to an often-ignored aspect of human psychology, Jung's theory of the collective unconscious, which could in many ways highlight not only how we have progressed to where we currently are, but how we might use this knowledge to proceed in a more environmentally sustainable manner.

Chapter Two: *Oryx and Crake*

Margaret Atwood is no stranger to the world of science. Growing up alongside parents with an educational and occupational background in the sciences, Atwood explains that "The orientation of my entire family was scientific rather than literary" (qtd. Howells 14). The informed explorations of science in her novel *Oryx and Crake* are evidence of a person well-versed in this field. In fact, the organisers of technology conference, Pandoland, hosted Atwood in 2016 as a guest speaker describing her as, "someone who's been a huge early adopter of different technology platforms" (Elahi), continuing with "But at the same time, she is certainly not an unbridled apologist for all things corporate and new" (Elahi). Atwood was also invited by the Genetic Engineering and Society Center of NC State University to speak at an event which foregrounded "our collective responsibility for thoughtful innovation as technology outpaces regulation" (Beal). While *Oryx and Crake* blatantly critiques uninformed and unbridled scientific progress through hyperbole, humour and irony, it would be both unjust and incorrect to label Atwood as 'anti-science' or 'technophobic.' Atwood is a valued contributor to discussions regarding scientific progress and the concerns pertaining to this progress. This highlights the merit of her literary works as a commentary on these issues. Atwood's fiction brings to light some of the very plausible outcomes of unbridled scientific progress particularly interference in evolutionary practices. She shows that these may result in unintended consequences, thus allowing her readers to reflect on otherwise unconsidered outcomes.

Through a close examination of *Oryx and Crake*, it is possible to explore the shortcomings of a posthuman shift characterised by science alone. Atwood is sceptical of a posthuman shift which ignores human psychology – one of the ways in which she displays this scepticism is through explorations of a reductionist scientific view of history, as well as depictions of the re-emergence of the unconsidered unconscious or as Jung terms it, the "collective unconscious". This scepticism amounts to a critique of hubristic science and harmful anthropocentrism. One of the literary techniques which Atwood makes use of to support her critique is her clever use of semantics throughout the trilogy. Veronica Hollinger describes *Oryx and Crake* as "a satire about the catastrophic potential of increasingly commodified technoscience" (452). While Atwood

addresses serious and very real concerns in her text, she does not do so at the expense of entertaining her readers. Unlike canonical dystopian texts like *1984* and *Brave New World* as well as many of the more contemporary texts situated within the genre of dystopian and post-apocalyptic fiction such as Ishiguro's heart-rending *Never Let Me Go* or McCarthy's sombre *The Road*, Atwood successfully incorporates humour into a genre where this element might seem out of place. With that being said, Atwood does not totally abandon the path laid out by canonical dystopian works. *Oryx and Crake* has been described as offering a dystopian warning, playing out "an Orwellian 'if this goes on' scenario" through her use of satire in critiquing a near-future society which Hollinger describes as "a very thinly disguised version of our own" (455). Like Orwell, Huxley and many other writers, Atwood uses her satirical text to make a critique of our current society, as well as where she sees this society going. More specifically, she critiques the hubristic nature of scientific progress and the dangers therein. Her satire also extends into her own more positive vision in her treatment of the God's Gardeners (Howells 176), which will be explored in the chapter which follows.

By paying close attention to Atwood's alternative approach to the post-apocalyptic novel it is possible to explore the pertinent criticisms that exist within her enthralling texts.
In the introductory chapter of this dissertation, I briefly discussed Atwood's use of binaries particularly in relation to her notion of 'ustopia.' In this text we observe the hierarchical oppression that classifies every aspect of the society into divisions such as male/female, rich/poor, human/non-human and science/art. Atwood's use of binarism allows for the exploration of these extremes, which in turn highlights the intermediate position between these binaries, or that which she proposes as an alternative to such dichotomies. Furthermore, her use of binarism highlights the problems that arise in favouring one side of a phenomenon and ignoring the other. For example, we see the issues that arise from a posthuman vision which foregrounds science and ignores psychological and emotional complexities (Howells 174). Atwood's use of binaries is essentially the backbone of her concept of 'ustopia': the label she has given the texts of her *MaddAddam* trilogy. The term refers to dystopian fiction that incorporates utopic elements into certain parts of the society which it depicts (Howells 86). Atwood formulated this term to describe the phenomena that exist within both characteristically dystopian and utopian fiction, which is "a yin and yang pattern; within each utopia, a concealed

dystopia; within each dystopia, a hidden utopia" (137). This is evident in texts such as Orwell's *1984*, Zamyatin's *We* and Huxley's *Brave New World*. Atwood explains how fiction of this kind is comprised of polar opposites working in tandem. It is through the presentation of opposing elements within each text, but also of the dichotomy between the first and second text as a whole, that Atwood proposes an eventual intermediary point regarding the realisation of a posthuman era. Her notion of binarism then seems to evolve into a Hegelian dialectic which resolves the binary between thesis and antithesis via an all-encompassing synthesis. I find Atwood's dialectical resolution narratively compelling because it encourages hope. Rafaella Baccolini writes "Utopia is maintained in dystopia, traditionally a bleak, depressing genre with no space for hope in the story; only *outside* the story: only by considering dystopia as a warning can we as readers escape such a dark future" (qtd. Bahrawi 254).

Oryx and Crake is the first text in Atwood's decade long creation, the *MaddAddam* trilogy. It was published on the fiftieth anniversary of Watson and Crick's discovery of the double-helix structure of DNA (qtd. Alban 87). This publication date is relevant as the text explores advanced sciences around genetic engineering. By drawing the reader's attention to one of the earliest discoveries around genetic material, Atwood accentuates just how far science has come, or how far it has strayed in its attempts to alter and 'improve' that which contains the fundamental characteristics of a living organism. This ground-breaking discovery was a significant turning point in the field of genetics. It allowed for the exploration of sciences that would have been impossible until this discovery, such as the sciences explored in *Oryx and Crake.* In this text Atwood highlights how the introduction of these sciences as a result of Watson and Crick's discovery ushered in the possibility of 'playing God' by changing the way in which we interact with the world on a microlevel. While this breakthrough has had many positive results in terms of disease prevention and cure, it has also resulted in dangers which Atwood explores at great length.

This first text in the trilogy is told from the perspective of male character, Jimmy also known as Snowman. The text follows the life of Jimmy and his friend Crake and is split across two timelines, pre- and post-apocalypse. A female perspective is notably absent from this text. It is only to be introduced in the second text of the trilogy, *The Year of the Flood*. The discovery of

the structure of DNA would not have been possible or would have taken longer had it not been for the contributions made by female chemist, Rosalind Franklin, who as we know (or rather do not know) was not initially acknowledged for her work (Cobb & Comfort). As previously stated, there is a notable female absence in this first text. An analysis of the main characters in this text, both of whom are male, provides the reader with an insight into the psychoanalytic construction of these characters. This not only provides insight into the unconscious elements which influence behaviours but also into the psychological realism of the text. *Oryx and Crake* also happened to be published in the same year that the Human Genome Project was completed. This project determined the chemical makeup of the entire human genome and took thirteen years to complete. While publishing the text on the fiftieth anniversary of the ground-breaking discovery in genetics was probably intentional, this second concurrence highlights the extrapolative nature of Atwood's writing. *Oryx and Crake* explores sciences rooted in findings such as those of the Human Genome Project, yet the text was published just a month after this research was completed.

Snowman is the first character we are introduced to. By the second chapter we learn that Snowman once Jimmy (15) lived in a Compound first with both of his parents and later with his father and his father's girlfriend Ramona. We are introduced to Crake, formerly Glenn, in the fourth chapter. Before moving to HelthWyzer, Jimmy's corporate enclave, Crake too lived with both of his parents, however, after the death of his father he lived with his mother and her boyfriend "Uncle Pete" (183). The similarities in their home life extends to a shared parental trauma. Near the beginning of the text Jimmy's mother disappears leaving only a note (61). Atwood describes society in this text as being split into "a technocracy and an anarchy" (147). While Jimmy's father clearly supports the technocracy, his mother disappears to join a resistance movement (179) and is later killed by the corporate security force for treason (258). This trauma is not dissimilar to that experienced by Crake on the loss of his father. Ultimately the pair bond due to this shared trauma,

> 'My dad was the same,' said Crake. 'He buggered off too.'
> 'I thought he died,' said Jimmy. That's all he'd ever got out of Crake before: dad died, full stop, change the subject. It wasn't anything Crake would talk about.

> ‘That’s what I mean. He went off a pleebland overpass. It was rush hour, so by the time they got to him he was cat food.’
> ‘Did he jump, or what?’ said Jimmy. Crake didn’t seem too worked up about it, so he felt it was okay to ask that.
> ‘It was the general opinion,’ said Crake. ‘He was a top researcher at HelthWyzer West, so he got a really nice funeral. (182-3)

Later in the text we learn that like Jimmy’s mother, Crake’s father disagreed with the unethical practices of the giant corporations. Crake’s father discovered that the company which he worked for was engineering illnesses into the vitamins that they sold so that they could later sell cures for them: “He found out. That’s how come they pushed him off a bridge” (211). Atwood’s choice to base this friendship on a shared trauma furthers her argument regarding the importance of considering human psychology in the shift to the posthuman. While Atwood uses the theory of Jung to further her main exploration of a posthuman shift, we see how the work of Sigmund Freud is relevant in relation to individual characters. Crake’s unresolved trauma rooted in his personal unconscious certainly influences his decision not only to create the Crakers, but to genetically coded these beings in the way that he does. The Crakers, the product of Crake’s trauma, are then left in the hands of Snowman (Jimmy) who too is consumed by his unresolved trauma. We see, then, the inevitability of the re-emergence of unconsidered psychological factors within the Crakers. In many ways this friendship appears to be based on its mutual convenience. There is constant rivalry between Jimmy and Crake, from the online games that they play to their shared interest in Oryx. The selfishness of this friendship is most evident near the end of the text when Crake murders Oryx prompting Jimmy to shoot and kill Crake (329). Through his very reductionist, scientific view of history, Crake deduces that the leading cause for war is “misplaced sexual energy” which ultimately gives rise to feelings of desire and jealousy (293). As such he aims to create the posthuman Crakers to be free of this ‘genetic flaw’: “Their sexuality was not a constant torment to them, not a cloud of turbulent hormones: they came into heat at regular intervals, as did most mammals other than man” (305). While it is never explicitly explained why Crake chooses to murder Oryx, the reader like Jimmy “can only speculate” (347) that Crake himself was susceptible to the very emotions that he worked tirelessly to engineer out

of the Crakers. In fact, we witness how the unconscious comes to the surface through the dreams that Crake has,

> Something else happened during that visit; something important…
> The first night, as he [Jimmy] was sleeping on Crake's pullout sofa bed, he'd heard shouting… it was coming from Crake's room. It was coming from Crake. More than shouting: screaming. There were no words. It happened every night he was there. (217-218)

When Jimmy questions Crake about these dreams he responds to this psychological phenomenon with scientific rationalism:

> 'Okay, point taken, wrong words. I didn't mean *I never dream*. I'm not crazy, therefore I must dream. Hypothesis, demonstration, conclusion, if A then not B. Good enough?' …
> So, Crake never remembered his dreams. It's Snowman that remembers them instead. Worse than remembers: he's immersed in them, he's wading through them, he's stuck in them. Every moment he's lived in the past few months was dreamed first by Crake. No wonder Crake screamed so much. (218)

The nightmares that Crake has could be attributed to his unresolved trauma. Freud believed that a greater understanding of an individual's mind could be gained through an examination of the unconscious, and that "dreams are the expression of [this] unconscious" (Dumitrescu 146). In the previous chapter I addressed the idea that behind the transhumanist desire for perfection is deep rooted fear. We see this materialising through Crake's character, as his nightmares slowly become realised. Crake materialises his "dream" of perfection through the creation of the Crakers leaving Jimmy, quite literally, living through Crake's nightmares as he is left to navigate the post-apocalyptic world alongside the Crakers (Alban 93). A deeper analysis of Crake's character reveals that beyond the psychological classification of Asperger's syndrome, Crake's narcissistic tendencies are of God complex proportions. This can be explored alongside the psychological theory of Jung. Jung explores the human inclination towards religion as "a kind of superior force, in the soul of man", he explains that if this phenomenon is not interpreted by an

individual as the idea of god, it is nonetheless an irrepressible feeling in one's belly (74). Because of Crake's reductionist worldviews and over-rationality, he attributes this innate human sensation not as a desire to believe in god, but instead as a godly power within himself. Jung explores this "focus of energy" further,

> I was seeking to express what seems to me the fact, that one or other basic instinct, or complex of ideas, consistently attracts the greatest amount of psychical energy, whereby it forces the ego into its service. Generally the ego is sucked into this focus of energy to such a degree, that it becomes identified with it and thinks that it wishes and needs nothing further. But in this way there develops a craze, a monomania or possession, a most exaggerated one-sidedness which endangers the psychical equilibrium most seriously… A man believes that he wills and chooses, and does not notice that he is already possessed, that his greatest interest has become a master who has arrogated to himself the power… The only person who escapes the gruesome law of enantiodromia is the man who knows how to separate himself from the unconscious, not by repressing it, for then it merely lays hold of him from behind, but by making clear to himself that it is something different from himself. (74-5)

Thus, we see how Crake's ignorance of the collective unconscious not only in his creation of the Crakers but also within himself, influences his God complex. His choice to repress his own human feelings and desires, and his failure to recognise his own inclination towards religion and the irrepressible aspects of the human psyche result in the augmentation of his God complex. Jung terms this "a laughable self-deification" occurring as a result of "taking to himself personally the contents of the collective unconscious" (72).

Throughout the text we are exposed to the human desire for perfection through the fictional fertility clinics which allow customers to "design" their children, and the spas which offer extreme treatments in an attempt to undo the effects of ageing. These corporations profit from the insecurity of people fuelled by vanity (Alban 94). Crake's desire for perfection runs far deeper than simply amending physical flaws. While we have witnessed this kind of hubris in Shelley's *Frankenstein,* Crake's God complex goes further than meddling with the creation of

life. Instead, Crake views humanity as deeply corrupted and irredeemable, hence his desire to eradicate the human race and replace it with his own vision of perfect beings. Despite Crake's desire to create the Crakers in such a way that they will not turn to religion or symbolism of any kind, we see how Crake is able to subconsciously fulfil his God complex through the Crakers. Oryx explains that when the Crakers ask who made them she tells them it was the "very clever and good" Crake (311). Crake does not admonish Oryx for this; instead he asks, "Did they ask who this Crake was?", "Did they want to see him?" (311). This shows Crake's desire for recognition and reverence as he does not correct their deification of him. Alban describes the Crakers as "Crake's panacea for misery" (96). He attempts to strip the Crakers of all the human emotions which encumber him and also those he is incapable of understanding. Where Crake falters is in his oversimplification of this phenomenon which, because of his reductionist thinking, he ascribes to "external causes" (293). Crake attempts to erase the product of millennia of evolution through weeks of trial and error. Through Crake's ignorance of human psychology, Atwood highlights its importance. Gibert explains how despite Crake's greatest efforts, the Crakers slowly come nearer and nearer to their human nature (43) or their collective unconscious. This is particularly evident through their reversion to rudimentary religion (43). While Crake describes God as being "a cluster of neurons" (157) which he believes he has removed from the Crakers, Jung's theory posits that these aspects of our collective unconscious are not passed to us genetically, rather they are the product of evolution and present in every human being. In her critiques of irresponsible science Atwood pays close attention to environmental destruction. Throughout the trilogy, Atwood addresses the current environmental concerns we face and considers how they might exist in the near future. Marta Dvorák describes the content of the trilogy as "extrapolated from the real" (qtd Howells 139). This relates back to Atwood labelling her fiction as "speculative". Heinlein explains that the terms 'extrapolation' and 'speculation' explore two sides of the same coin. He explains that "'Extrapolation means much the same in fiction writing as it does in mathematics," it is the "continuing [of] a curve, a path, a trend into the future, by extending its present direction" (qtd. Landon 26). He explains that 'speculation' is a broader term which begins with the question "What if?" (26). In her book *Curious Pursuits* Atwood argues that all fiction begins with "*What if?*" (91). She goes on to explain that the *What if?* of *Oryx and Crake* is, "*What if we continue down the road we're already on? How slippery is the slope? What are our saving graces? Who's got the will to stop*

us?" (323). As such Atwood makes use of both extrapolation and speculation in her critique of reductionist science. She begins with the above speculations and then proceeds to provide answers to these questions through extrapolative writing.

In my introduction I looked at Atwood's reluctance to assume the label 'environmentalist' (qtd. Grimbeek 37). Despite this, she is outspoken regarding environmental concerns, both as a writer and in her personal capacity. Atwood describes her work as the product of "somebody who did the math. And the math is: when it's all gone there isn't any more" (37). Based on this and the realistic aspects of the science explored in her work, Atwood appears to approach ecological issues from a scientific point of view as opposed to purely out of a feeling of ethical obligation. A by-product of her "doing the math" is the expression of environmentalist concerns and a strong critique of environmentally harmful behaviours. As previously mentioned, *Oryx and Crake* explores various existing, as well as proposed scientific practices, specifically those relating to genetic engineering. The text has been critiqued regarding the accuracy of these explorations. Anthony Griffiths described *Oryx and Crake* as harming the "perception of the respectable science of genetics", as well as distracting readers from "far more pressing and important scientific issues" such as toxic pollution created from the field of chemistry, nuclear bombs created by physics and the air pollution produced by internal combustion engines developed in the field of engineering (192-5). On genetic engineering Atwood explains, "Human desire is driving these choices, is that an ethical compass?" (qtd. Beal). It is evident, then, that Atwood's critique is aimed at any hubristic intentions and the ecological implications of these sciences rather than at the science itself. Jennifer Kumza, professor and researcher of emerging technologies, rebukes Griffiths' criticisms saying,

> I don't think that dystopian speculative fiction about biotechnology is harmful at all. In fact, I think it is essential. Speculative fiction like *Oryx and Crake* is crucial to help us understand what we do not want for a future with biotechnology. Atwood writes about the possible and the plausible so that it does not become probable… (qtd. Beal)

Griffiths' critique holds the novel to the standards of a journalistic or expository piece, of which it is neither. Furthermore, to foreground the 'accuracy' of the science presented in the text is to

miss the point of what *Oryx and Crake* embodies. Instead, the text explores the consequences of science, whatever it may be, that is rooted in hubris and fails to consider aspects which fall outside of the empirical scientific method. While hubris exists throughout the text, the character of Crake is at the foreground of Atwood's exploration of hubristic science. With that being said, Atwood's treatment of Crake's character is unusual as he does not fulfil the typical criteria for an antagonist, despite his decision to obliterate the human race. Atwood does not vilify the individual scientist or even the science of genetics, instead she critiques the society which shapes the intentions of these scientists. While I certainly agree with Kumza's defence of the text, it is perhaps reductionist in suggesting that *Oryx and Crake* fulfils a purely informative function. Furthermore, Atwood's text is not only a portrayal of the "possible" and "plausible," but also of the veridical as the text is not based purely on speculation, in fact much of the science it explores exists today as it is depicted in the text. While a possible defence of science is that green science can assist with lessening or even reversing much of the damage inflicted on the planet by human beings, this is not the kind of science that is heavily funded. Instead, the field which receives the most funding is that of life sciences (Romero). Of all the sciences which fall under life science the top ten received more than ninety percent of the total funding, amongst these top ten are biotechnology and pharmaceuticals (Romero). This problematises Griffiths' point as he posits that there are far more pressing issues in the field of science. It is, however, evident that biotechnology is certainly a pressing issue given the amount of funding that is allotted to this field. Atwood further extinguishes critiques around the accurateness of the science and technology present in *Oryx and Crake* saying, "It's not a question of our inventions… but of what might be done with them" (Atwood 323).

Atwood's critique of the society presented in the novel extends into a critique of the binary nature of this society. As the trilogy progresses, we witness Atwood challenging this way of life as she brings seemingly opposing elements together. In doing so she erodes these binaries (Howells 174) and highlights the interconnectedness of principles, and the transcorporeality of humans and the natural world. We are presented with the first binary before chapter one even begins. The epigraphs at the beginning of *Oryx and Crake* set the tone not only for this novel, but for the trilogy as a whole. The first extract is taken from Jonathan Swift's *Gulliver's Travels,*

> I could perhaps, like others have astonished you with strange improbable tales; but rather I chose to relate plain matter of fact in the simplest manner and style; because my principal design was to inform you, and not to amuse you.

The second from Woolf's *To the Lighthouse* reads,

> Was there no safety? No learning by heart of the ways of the world? No guide, no shelter, but all was miracle and leaping from the pinnacle of a tower into the air?

The first quote by a male author mirrors the fact that this first text is told from the perspective of male character Jimmy/Snowman. With that being said, the presence of Woolf's extract could highlight the way in which Atwood challenges gender binaries as Jimmy does not conform to the characteristics of a conventionally masculine character. Thus, the quote taken from Woolf's text could also highlight the traits of "art, empathy, and imagination" (174) introduced into this first text through Jimmy's character. This quote closely links to a feminist critique of Jung's psychological theory. Naomi Goldenberg explores Jung's notion of logos vs eros, or science versus mysticism. Goldenberg explains that "Jung is certain that women are characterized by Eros, an ability to make connections, while men are oriented toward Logos, the function of analytic thought", and that the existence of Logos within the female is "often only a regrettable accident" (445). This binary in many ways mimics the first two texts of the trilogy in that *Oryx and Crake*, which is told from the male perspective, explores "analytic thought" and *The Year of the Flood*, which is told by female narrators, explores the more "yin" qualities of Eros. With that being said, Atwood deconstructs this in her explorations of the presence of the one within the other, as well as the limitations of considering each aspect in isolation. We see the mysticism of Eros in Jimmy's stories told to the Crakers, as well as Toby's analytic thought as she navigates life post the Waterless Flood. Howells goes on to explain that Gulliver's emphasis is on "plain matter of fact" (Swift), this alludes to Crake's reductionist view of humanity which influences his posthuman vision. The second quote by Woolf could also be seen as foreshadowing the female narration of the second novel *The Year of the Flood*, which is told from the point of view of Toby and Ren. The significance of this first text being told from a male perspective is evident in the nature of the topics explored in this text. When looking at existing biotechnology

companies such as Intellia Therapeutics, Editas Medicine, Sangamo Therapeutics, Horizon Discovery Group and AgeX Therapeutics, it is difficult to ignore the narrow demographic at the forefront of this kind of science. The CEO's of said companies are John Leonard, James C. Mullen, Sandy Macrae, Terry Pizzie and Michael D. West, who all happen to be white males. This shows how the issue of gender representation in this field evident in the 1950's evident from the aforementioned, unacknowledged contributions of female chemist Rosalind Franklin, has extended into contemporary society. Grimbeek explains that one of the main themes across all of Atwood's works is that of power, "who is given a voice and what is said" (41). As such it is only appropriate that the narrative voice and the perspective provided in the novel which deals with the theme of power (specifically as it exists within the field of science) is male.

The binary nature of the society presented in *Oryx and Crake* extends far beyond gender alone. The world in which the novel is set is comprised of two demographically and geographically distinct areas: Compounds and pleeblands. The word "Compound" is capitalised throughout as if trademarked; this is appropriate as these areas are where all that is trademarked is created. The Compounds are described by Jimmy's father as follows,

> Long ago, in the days of knights and dragons, the kings and dukes had lived in castles, with high walls and drawbridges and slots on the ramparts so you could pour hot pitch on your enemies…and the Compounds were the same idea. Castles were for keeping you and your buddies nice and safe inside, and for keeping everybody else outside. (28)

Jimmy proceeds to ask his father, "So are we the kings and dukes?" to which his father responds, "Oh, absolutely" (28). The Compounds, heavily guarded, gated communities owned by biotechnology companies, provide a plush lifestyle to those employed by these giant corporations. The stringent security and closely monitored movements of dwellers have to do with the protection of the expertise of the bioengineers living in the Compounds. The Compounds function as the falsely "utopic" element of Atwood's 'ustopia.' The neologism "pleeblands" echoes the Latin derived "plebeian" denoting a member of a lower class, more contemporarily used to describe something which lacks refinement. Both definitions encapsulate the nature of the pleeblands. Later in the text, while Jimmy is on his way to the Martha Graham academy, the reader is provided with a glimpse beyond Jimmy's cushioned life. As the train

pulls into the station Jimmy observes "the tackiest kind of pleeblands: vacant warehouses, burnt-out tenements, empty parking lots"; the description continues, "Here and there were sheds and huts put together from scavenged materials…" (185). When Jimmy finally enters the pleeblands we are provided with a different description of the pleebs,

> Jimmy had never been to the pleeblands before, he'd only looked over the wall. He was excited to finally be there, though he wasn't prepared for so many people so close to one another, walking, talking, hurrying somewhere… Rich pleeblanders in luxury cars, poor ones on solarbikes, hookers in fluorescent Spandex, or in short shorts… The pleebland inhabitants didn't look like the mental deficients the Compounders were fond of depicting, or most of them didn't…There was so much to see – so much being hawked, so much being offered. Neon slogans, billboards, ads everywhere. And there were real tramps, real beggar women, just as in old DVD musicals… Real musicians on street corners, real bands of street urchins. Asymmetries, deformities: the faces here were a far cry from the regularity of the Compounders. (287-8)

This disparity further extends into microcosms of the society presented in *Oryx and Crake.* The two tertiary institutions described in the text are distinctly different in terms of faculties, funding and appearance. The Watson-Crick Institute, where Crake studies, is described in the chapter directly after the one in which Atwood describes the Martha Graham Academy, thus prompting a direct comparison between the two, in turn further cementing the binary nature of this society. A line from the text which captures this disparity is, "Compared with Martha Graham, Watson-Crick was a palace" (199). The naming of these institutions takes us back not only to the epigraphs of the text but to the significance of the text's date of publication. The Watson-Crick Institute named after the famed scientists is a university focused on the sciences, while the Martha Graham institute is named after the lesser-known American dancer and choreographer. In these microcosms and their naming, we once again witness the dualism of male versus female, rich versus poor, but also of science versus art. The discovery made by Watson and Crick echoes the epigraph taken from Swift's *Gulliver's Travels;* their discovery is meant to inform. Martha Graham, like Virginia Woolf – whom Atwood refers to in the epigraph, made significant contributions to her art form, contributions which are not observed with the

same reverence as those of the male scientists. The contributions made by Watson and Crick receive far greater attention both in the text, but also in contemporary society as their discovery pioneered the now very profitable field of genetics. While Martha Graham, viewed by attendees of the academy as "some gory old dance goddess of the twentieth century who'd apparently mowed quite a swath in her day…Retro feminist shit" (186), made contributions to a field only admired by "a clutch of now-dead rich liberal bleeding hearts from Old New York" (186). Jimmy is described as a "mid-range student" (173), his strengths lying in the humanities as opposed to the sciences. The institution which caters to students such as Jimmy is described as "falling apart" (185). The types of academies which are geared towards the 'liberal arts' are greatly underfunded as the fields they cover are deemed redundant. The capital generating potential of the graduates from institutions such as the one attended by Crake is far greater, thus these institutions receive greater funding. The fundamental differences between these two institutions are further highlighted through observable differences at each campus. The security at Martha Graham is described as "a joke" (185), while at Watson-Crick it is described as "very thorough" (197). This highlights the perceived value of the information and attendees at each institution. The statue at Martha Graham is a defaced statue of the dancer, while Watson-Crick has a statue of the first successful splice of the spider and goat, the "spoat/gider" (199). Through these statues Atwood certainly highlights the treatment of the humanities versus the sciences and presents an accurate reflection of how these fields are regarded in present day society, however she also mocks the tasteless nature of the 'Frankensteinian' type science that takes place within Watson-Crick. At Martha Graham the academic culture is described as being comprised of poor renditions of Shakespearean plays and the study of things which have become redundant in a techno-scientific world, "a lot of what went on at Martha Graham was like studying Latin, or book-binding: pleasant to contemplate in its way, but no longer central to anything…" (187). The only aspects of study that are deemed valuable are those which still have the potential to generate income, "Webgame Dynamics, for instance: money could still be made from that…Like everything at Martha Graham it had utilitarian aims" (188). We see a hint of irony here in Atwood's writing as employers insist on employees possessing qualities typically taught and promoted in the humanities. This furthers her insistence on the importance of aspects unconsidered by science. In the posthuman world we see the re-emergence not of scientific explorations but of elements closely linked to the humanities. Furthermore, this points to

Atwood's personal decision to pursue a career in the humanities despite the scientific background of her family.

The view of art presented through the binary of the institutions closely mirrors Crake's view, which ultimately influences his desire to create an 'unimaginative' posthuman. While Crake's reductionist view of humanity is largely influenced by his traumatic past, his social ineptitude and neurodivergent character surely play a part in how he perceives the world. Crake lives a very isolated life with Jimmy as his only friend, and as previously explored this friendship is not based on a healthy connection. Oryx describes her intimate relationship with Crake as "Not fun, just work" (314). Every aspect of his life is mechanical and every person in his life is reduced to a functional role. While the dilution of the arts at Martha Graham makes the academy appear largely redundant, the patented creations or "nice little money-spinner[s]" (200) produced at the Watson-Crick Institute appear equally arbitrary. From fake rocks, to colour changing wallpaper and bulbous headless chickens, the science happening at Watson-Crick, although described as "Wave of the future" (202), represents a future cluttered with arbitrary inventions. Through her depictions of the trivial scientific creations produced at the institute, Atwood questions whether all scientific progress is beneficial and if this progress is carried out with humanity's best interests at heart, or if it is merely driven by hubris and greed. Beyond the capital potential of science versus art, the arts are not only redundant in the world of the text, but Crake deems art an unnecessary hindrance, "An empty drainpipe. An amplifier. A stab at getting laid" (168). Ironically, his attempts at 'reprogramming' his posthuman race to be free from the trivialities of art, culture and religion backfires as the Crakers turn to defender of the arts, Jimmy, for answers to their existential questions, resulting in Crake being deified by his own creation. Here Atwood again exposes a limitation of a purely scientific approach to the posthuman.

Unlike Shelley, who presents the creation of her out-of-control scientist as a monster mortified at the sight of his own reflection, Atwood does not warn against the possible consequences of unbridled science through depicting the product of this science as monstrous. While the Crakers certainly display questionable behaviour, they are in no way monstrous. In fact, it is Jimmy who whimpers to himself, "Where's my Bride of Frankenstein?" (Ku 169). This subverts the human/non-human dualism, which is a pivotal factor in sustained negative anthropocentric thought. In the post-apocalyptic world, Crake's creations appear more human than Snowman

does, as Snowman lives in a way which would be deemed as 'uncivilised' or 'savage'. He is unable to maintain personal hygiene (7), he sleeps in a tree and he lacks a community of his own. This not only highlights a few of the parameters around the notion of the human, but it also forces one to consider the dehumanisation of the human as a result of scientific progress, a consequence of ignoring human psychology in this progression. While the posthuman Crakers turn towards more human interests such as the aforementioned art, culture and religion, Snowman becomes less human as he is othered in the post-apocalyptic posthuman world. Because Snowman is the only human being present amongst the posthuman Crakers we are constantly made aware of his differences from these genetically enhanced beings. The Crakers point out his beard, "what is that moss growing out of your face?" (8), and the fact that he wears clothing. These obvious physical differences, as well as Snowman's behavioural differences, such as him not participating in the same rituals as the Crakers and his omnivorous diet, are the grounds on which he is othered from their community. As such, Atwood effectively displays the limitations of theorising a posthuman era characterised by science or philosophy alone. Atwood recognises that we have taken a technological turn towards the posthuman, and while this cannot be stopped, she highlights the limitations and dangers of a reductive scientific approach. Instead, she encourages consideration of human psychology in these scientific endeavours – not because it will make a posthuman shift seamless, but because ignoring this aspect does not diminish its influence on our future. Like Mary Shelley, Atwood appears critical of science without conscience, not of science as a whole. She recognises the potential that science has to improve human life, but she is not ignorant of the horrors historically carried out in the name of science. Nor does she overlook the prospective advances within the field which could have devastating effects on human beings and the Earth as a whole. While the field of genetic sciences is advancing rapidly, Atwood avoids providing her reader with a schematic view of this science. Instead, she critiques what Best and Kellner term, "a dangerous one-dimensional, reductionist mind-set that is blind to the social and historical context of science and to the ethical and ecological implications of radical interventions into natural processes" (qtd Bouson 139-140).

Further observation of the disparities between the two educational institutions brings to light the commodification of life as it occurs throughout *Oryx and Crake*. High-school graduation

ceremonies referred to in the text as "Student Auction" (173) are attended by EduCompounds such as the Watson-Crick Institute and Martha Graham Academy. Here recruiters bid for the top students. Crake is "snatched up at a high price" (173), highlighting the way in which a human being's value is determined by their potential to generate income. This commodification extends into other facets of the society as different Compounds compete to have the best scientists working for them: Jimmy's father was "headhunted by NooSkins" (53) to work on a project involving the replacement of the old epidermis with a new one (55). Spiegel refers to characters such as Crake as a "commodified mind rather than body" (128). The hierarchical structure of humanity with "numbers people" above "word people" shows that 'humanity' is not a uniform title under which all human beings are equally observed (Ku 111). Like the aforementioned novels by Orwell and Huxley, Atwood too explores the control of citizens through the CorpsSeCorps, but also through a less explicit form of control, the control that the 'free' market has over consumers. We read about this post-nationalist shift in the second text of the trilogy as Toby explains how the CorpSeCorps assumed the role of law enforcement, "They'd started as a private security firm for the Corporations, but then they'd taken over when the local police forces collapsed for lack of funding, and people liked that at first because the Corporations paid, but now CorpSeCorps were sending their tentacles everywhere" (30).

Michael Spiegel closely observes the society presented by Atwood; he suggests that she views transnational corporations as a great threat to the nation-state (125). This view extends into a critique of the potential dangers of allowing unrestrained and ungoverned scientific progress to be conducted by these corporations. Atwood exposes the repercussions of a 'free-for-all' mentality, seen in Libertarian transhumanism, towards technological and scientific advancement in the shift towards a posthuman era through the binary nature of this post-nationalist society. Despite his clear opposition to conglomerates which reign supreme, Crake is nonetheless a commodity in this society. As such he utilises the consumerist nature of this society to implement his 'cure' for all that he deems faulty with humanity. He realises that the best way to administer the BlyssPluss Pill to the masses is through the marketing techniques used by the corporations. He is aware of the power these corporations have over people through observations of the society around him; he witnesses the successful merchandising of products created at Watson-Crick first-hand and uses this knowledge to market the BlyssPluss. His choice to utilise

the economic system which he so despises is further prompted by his reductionist view of what drives human decisions and ultimately the path that humans follow,

> Needless to say, Crake continued, the thing would become a huge money spinner. It would be the must-have pill, in every country, in every society in the world… The tide of human desire, the desire for more and better, would overwhelm them. It would take control and drive events, as it had in every large change throughout history (295-6).

Crake's opposition to rampant capitalism is based on the personal suffering he has endured at the hands of giant corporations, specifically the trauma resulting from the death of his father. However, he also recognises the huge part that these companies play in environmental destruction and in promoting lifestyles which further this destruction.

An instance of a commodified body can be observed through the character of Oryx, who is first sold by her mother to a man named Uncle En who uses her to swindle people in the pleeblands (122). We know from Jimmy and Crake's browsing history that she has been used in pornographic films, and later in the text we learn that she has worked for a man named Jack who filmed these movies (142). Later on, Oryx is sold again, this time as a sex slave who is kept in a garage, and finally she is 'procured' by Student Services at the Watson-Crick Institute for Crake (309). Throughout the text we witness how Oryx's value is directly equated to "her function in society as a commodified body" (Spiegel 127). This commodification of human life is also explored, less blatantly, through companies such as Infantade, Foetility and Perfectababe (250). Each of these companies claim to genetically modify embryos to possess desirable characteristics chosen by customers. In her paper "Wholesale Apocalypse" Grimbeek explains how the names of these fertility companies specifically Infantade and Perfectababe echo "those of registered trademarks" such as Powerade® and Lucozade® (92). The use of hyperbolic and sometimes contradictory neologisms assists Atwood's detailed critique of consumerism (Grimbeek 88). Grimbeek likens Atwood's neologisms to Orwell's 'doublethink' or "holding two contradictory beliefs in one's mind simultaneously and accepting both of them" (qtd. Grimbeek 91). An example of this is CorpSeCorps, the security force meant to ensure the safety of civilians. However, this agency treats anyone who opposes the goals of the giant corporations with brutal force, hence the echoes of 'corpse' in their name. Atwood's use of this technique furthers her

argument regarding her notion of an 'ustopia' whereby a dystopic element exists within a utopia or a utopic notion. We again see Atwood's dialectical sensibility as she highlights the duality of human beings.

Throughout the text Atwood highlights the importance and the effect of language and meaning both through the Crakers' and through her newly coined phrases. John Mullan claims that "remade worlds make language anew" (qtd Chen). We see this claim holding true in *1984* through the newly created language of 'Newspeak', a simplified language implemented by the totalitarian government used as a means of controlling citizens. Similarly, Atwood's use of neologisms throughout the text draws the reader's attention to the corruption of language, however, her intention, while still satirical in nature, is more humorous than Orwell's as Atwood appears to be making fun of the copywriting industry and the marketing techniques which we so often fall prey to. The control expressed in *Oryx and Crake* is not by a totalitarian government, rather language is utilised by avaricious biotech corporations to promote consumerism. As previously mentioned, Atwood's texts diverge from dystopian and apocalyptic writing through her use of humour. She uses this to critique both corporation and consumer, not through reprimand, but through mockery. The biotechnology companies in the text with names like HelthWyzer, AnooYoo, RejoovenEsense and OrganInc echo those of the real-life biotechnology companies previously mentioned. This linkage extends Atwood's criticism from the companies in her text to the companies which exist in contemporary society. Chen explores how a company name like OrganInc juxtaposes the words 'organ' and 'incorporated' highlighting the immorality of profiting off life-saving surgical procedures. The term also echoes the word 'organic', which is ironic given that the organs being harvested belong to genetically modified pigs. Elaine Showalter suggests that a company name such as 'AnooYoo' is a direct criticism of the American consumer as the phonogram "oo" mimics the reverberation of the American accent. While Atwood certainly holds mega corporations accountable, she holds each person responsible for the ecological predicament in which we currently find ourselves. One of the main ways in which Atwood apportions responsibility is through balance in her satirical writing. The satirisation of one entity is balanced by the satirisation of the presumed opposing entity pointing once again to moving beyond binaries and presenting a more balanced critique. Atwood's use of neologisms throughout the text supports her satirical depiction of the corporations by

highlighting the ludicrous nature of the products and services they offer. Through 'remodelled' words Atwood remodels our current society and presents us with her vision of how this society might appear in the near future. This satirisation is balanced through her depictions of those in direct opposition to the corporations. While Atwood uses the God's Gardeners to raise awareness about the probability of eco-catastrophe, she presents them as radical environmentalists not immune to consumerist desires. In fact, she goes as far as to depict the suppression of these desires as the enactment of masochistic behaviours. A deeper analysis of this group is conducted in the chapter to follow. What I wish to highlight is how this balanced satirical writing, while fierce and full of biting irony, removes bitterness from what Atwood is saying. Instead, she highlights human fallibility as it exists on both ends of the spectrum, giving her writing a tone of compassion as she explores the aspects of the human condition present in our collective unconscious, such as our inclination towards anthropocentrism and hedonism.

In *Curious Pursuits* there is a segment entitled "Letter to America" (325) in which Atwood expresses her concern for the 'land of opportunity'. She begins by describing all that the Land of Liberty has given to her in terms of the arts: music, literature, and film. She expresses her reluctance to write this letter, however she takes the plunge as she feels America's business is no longer merely its own. She paraphrases Dickens's character Marley from *A Christmas Carol* saying, "mankind is your business" meaning that the actions of America affect humankind as a whole, therefore their business becomes everyone's business. In explaining the *What ifs?* of *Oryx and Crake* Atwood poses the question "*How slippery is the slope?*" (323); in her letter to America she again refers to this slope saying,

> If you proceed much further down the slippery slope, people around the world will stop admiring the good things about you. They'll decide that your city upon the hill is a slum and your democracy is a sham, and therefore you have no business trying to impose your sullied vision on them. They'll think you've abandoned the rule of law. They'll think you've fouled your own nest. (328)

The *MaddAddam* trilogy is in many ways an extension of this letter. We know that the trilogy is set in the United States as Jimmy visits a city called New New York (287). We know that New

New York is in fact New York as earlier in the text we read reminiscences about this city before it became the city which Jimmy visits (63). We also know that Jimmy's mother grew up in Florida as she recalls the ecological devastation that struck the places she remembered from her childhood (63). David Staines explores Marshall McLuhan's description of the Canadian imagination as being applicable to Atwood's writing, "Sharing the American way, without commitment to American goals and responsibilities, makes the Canadian intellectually detached and observant as an interpreter of American destiny" (qtd. Howells 24). Atwood's close proximity to America allows her to have a true understanding of its political, economic and social standing, however, she is distanced enough to provide an observer's view, one not clouded by the same patriotism that an American writer might be afflicted with. This in turn allows her to present her readers with a compelling vision of a near future American society (24). Atwood's decision to set her novel in America probably stems from her proximity to this country. Atwood's *The Handmaid's Tale* and *The Testaments* are also set in America. This setting in many ways supplements the narrative of the story as Gina Wisker explains how aspects of the regime presented in the text are derived from "America's Puritan history" (qtd. Howells 93). By drawing these kinds of parallels Atwood subtly hints at the argument present in her trilogy, which is the role of psychology, particularly Jung's collective unconscious, in the repetition of human behaviours and the re-emergence of historical cultural practices and belief systems. Similarly, Atwood chooses to situate her critique of rampant capitalism and biotechnology in the country which has the largest consumer market and is the global leader in the biotechnology sector. With that being said, the economic system presented to us in the text is not a reproduction of the American economic system. Instead, Atwood presents us with a hyperbolised neoliberal society. In Atwood's trilogy a nation-state does not exist, instead the power is in the hands of transnational corporations (Spiegel 122). In a society where the primary goal is profit, divisions between the rich and the poor become increasingly apparent. Spiegel explains that as a result of unbridled neoliberalism, transnational corporations decentralise the authority of the nation-state. This in turn creates "new inequalities of both real class and virtual geography" (122), as seen in the Compounds and pleeblands. There is a separation not only in income but also in the spaces occupied by people despite geographic proximity. Although Jimmy's Compound is separated from the pleebs only by "razor wire" he is distanced from these people due to the vast economic

divide between them (122). By the end of the trilogy, however, judgement stems from nature rather than from anthropocentric projections and hierarchies formed from socio-economic power. In Atwood's fictional world, decisions which affect the population at large are made by a select elite with the goal of capital gain in mind. Snyder describes *Oryx and Crake* as, "a near-future world that both approximates and projects forward from the political, socio-economic, technological, and climatological givens of our present moment" (471). Amelia Defalco furthers this, describing the trilogy as an imagining of "the social, cultural, affective and ecological implications of the convergence of capitalism and biotechnology" (qtd. Howells 9).
As explored by Critical and Philosophical posthumanists, the notion of the human rooted in anthropocentric, dualistic thought has allowed for the formation of a harmful human/nonhuman dualism; to be sustained this requires the human to be seen as the superior half of the dualism. This harmful anthropocentric thought is challenged by Atwood through the eventual inversion of this dualism after the Waterless Flood as judgment stems from nature and is not a product of this sustained dualism. With that being said Atwood destabilises this dualism even before the destruction of the human world. Atwood's introduction of pigoons, MoHairs, liobams, bobkittens and even Crakers into the fictional world which she has built challenges this dualism as in the eyes of the market, all life is reduced to its profit potential. Furthermore, we witness a blurring of the species line in these genetically engineered creatures. A good example of this is the part-human or human-parts pigoons (Ku 111):

> The goal of the pigoon project was to grow an assortment of foolproof human-tissue organs in a transgenic knockout pig host-organs that would transplant smoothly and avoid rejection, but would also be able to fend off attacks by opportunistic microbes and viruses… they were now perfecting a pigoon that could grow five or six kidneys at a time. (22)

Ku explains that the pigoon mimicry of human beings as a result of their containing human DNA means that these creatures challenge the question of what it means to be human. We see this through Jimmy's reluctancy to eat the pigoons, "This would upset Jimmy; he was confused about who should be allowed to eat what. He didn't want to eat a pigoon, because he thought of the pigoons as creatures much like himself" (24). After the world has been ravaged by the Waterless

Flood, the pigoons disrupt the previously undisputed and firmly cemented hierarchy of a human-centred world. The presence of the human/nonhuman dualism has allowed scientists to use these animals to serve a selfish human desire to unnaturally extend the human lifespan, however, the inclusion of human DNA in these creatures ultimately allows for them to threaten the survival of the remaining human beings. Thus, the hubris and anthropocentric thinking which fuelled the creation of these creatures ultimately allows for the eventual dismantling of this dualism. Xenotransplantation is not a new concept, however, when *Oryx and Crake* was published no successful transplant from animal to human had taken place. Nineteen years after the publication of Atwood's novel the first successful xenotransplantation from a genetically modified pig to a human being took place. This is not to suggest that each extrapolative point of Atwood's text will be realised, or that the purpose of the trilogy is to prophesise biotechnology and eventual apocalypse with accuracy. It does, however, highlight the ways in which speculative fiction invites the reader to extrapolate current trends to their imagined ends and consider what the potential consequences of existing practices might be. Atwood uses her extrapolations as a means of commenting on the often-hubristic nature of scientific progress and the largely unconsidered consequences of this science. The subsequent successful xenotransplantations between humans and pigs makes the prospect of pigoons more than plausible. Atwood highlights our closeness to the very animals we view as lesser beings. Secondly, she challenges still widely upheld Judaeo-Christian teachings, as the bible states, "And the pig, because it parts the hoof and is cloven-footed but does not chew the cud, is unclean to you" (*Good News Bible,* Lev. 11.7). There exist a few assumptions around the reason for the prohibition of the consumption of pork during biblical times. The first is based on the notion that pigs are 'unclean' animals who host various diseases. A second, more symbolic reason is that in refraining from eating pork Jewish people set themselves apart from their pagan neighbours as a chosen people. While many religious groups still refrain from consuming pork, the above reasons for its prohibition are no longer as relevant. Farming practices, specifically disease detection and safe cooking practices mean that consuming pork does not come with the same risk of disease as it did in biblical times. Furthermore, the advent of Jesus as explained in the New Testament meant that the need to isolate God's chosen people was no longer required. Both reasons provided for the prohibition of pork consumption are rooted in practices explored in the theoretical chapter of this dissertation. The first reason is rooted in a hierarchical anthropocentric thinking which classifies some

animals as ‘clean’ and others as ‘unclean’ based on arbitrary distinctions such as hoof shape, and digestive processes. The second reason is rooted in ‘othering’ practices established with the intention of separating people based on their religious beliefs. Atwood contests this through depicting a society in which these very creatures house organs for human transplant. While the chapter which follows explores the limitations in advocating for a complete abandonment of anthropocentrism, the issue of the pigoons, as explored above, raises questions surrounding this worldview. Before anthropocentric thought was established as a hierarchy established on beliefs of human exceptionalism, this human-centred view was based on survivalism. This is an anthropocentric view which places human survival before that of other living creatures in order to ensure that the needs of the human individual or community are met. During a time when human beings were not at the top of the food chain, viewing oneself or one’s community as the central element of existence was not carried out as a means of domination, but rather as a means of survival. The existence of the pigoons highlights the problem with harmful anthropocentric thought as it exists contemporarily through the reduction of life to its profit potential. Atwood’s reiteration of capitalist society’s reduction of life in many ways correlates with Braidotti’s exploration of post-anthropocentrism as the equalisation of all life under the eyes of the market. Words such as “reaped,” “destroyed” and “wasteful” (23) are used in reference to these creatures, highlighting their life as being purely a commodity. The pigoons are only valued in as much as they serve a practical, profitable goal. Atwood attempts to dismantle this problematic thinking by drawing our attention to the interconnectedness across species boundaries and the similarities between human beings and other creatures. Atwood’s recognition of this interconnectedness through the pigoon project shows her deep understanding of science, particularly Darwin’s concept of common descent. This once more draws our attention to the fact that Atwood is in no way anti-science. The above ties into a point which will be further expanded on in the next chapter, which is Atwood’s view of religion. While Atwood is critical of the anthropocentric narrative of religion which posits that human beings are a superior life form and that nature exists to serve human needs, she is equally cognisant of the ethical merit of religious scepticism towards genetic engineering. Atwood questions the ethics of the pigoon project (Sanderson 235) as Jimmy’s mother exclaims, “You’re interfering with the building blocks of life. It’s immoral. It’s . . . sacrilegious” (57). Here Atwood draws our attention to the religious concern about or with playing God. While Jimmy’s mother’s point could be construed as ‘old

fashioned' it does hold ethical merit. We see then that while Atwood critiques anthropocentric Biblical doctrine, she explores how the equalisation of life under capitalistic commodification is not a suitable solution to this. As such Atwood highlights how science can be utilised for good in its ability to dismantle hierarchical thinking; conversely, she draws our attention to science without ethical conscience which amplifies this way of thinking.

A deep analysis of Crake's character supplements an exploration of the Crakers as the genetic makeup of these posthuman creations is a direct reflection of his worldview. Crake in many ways can be viewed as a caricature of the science which Atwood wishes to critique. This points to a limitation in applying psychological theory, such as that of Jung, to literature. Through the character of Crake Atwood takes creative licence in using his character to formulate a larger argument regarding the issue of science. In many ways he is the embodiment of a problematic system rather than merely a complicated individual. We see then that the originality present in fiction can sometimes make it difficult to methodically apply psychological theories to literary characters. As previously mentioned, Crake does not typify an antagonist. Atwood's choice to give the reader insight into Crake's past, prompting at least a degree of sympathy for his character, suggests that he is no absolute villain. Furthermore, we know that Crake's intentions are not nihilistic, instead he believes that he is doing a good thing in attempting to "ameliorate ecological disaster" (Alban 88). This again points to the fact that Atwood is not anti-science nor is her argument guided by a Luddite mentality. Instead, she warns against hubristic, ungoverned science. Furthermore, the hyperrationality of Crake's character furthers her argument regarding this kind of science's ignorance of human psychology and the ways in which it influences both the scientist and the product of this science. As previously explored, Crake adopts a very reductionist, scientific view of history. This in turn affects his view of the world and ultimately what he wishes for the world to be. Crake's view closely resembles the online game that he and Jimmy once play: Blood and Roses (78),

> Blood and Roses was a trading game, along the lines of Monopoly. The Blood side played with human atrocities for the counters, atrocities on a large scale: individual rapes and murders didn't count, there had to have been a large number of people wiped out… The Roses side played with human achievements. Artworks, scientific breakthroughs,

> stellar works of architecture, helpful inventions… you could double-click and get an illustrated rundown, in two choices: R for children, PON for Profanity, Obscenity, and Nudity. That was the thing about history, said Crake: it had lots of all three (78-9).

The binary nature of this game mimics Crake's binary perspective in that his understanding of humanity is reduced to its downfalls and achievements, however, much as the game does, Crake views the "Blood" as trumping the "Roses,"

> That was the trouble with Blood and Roses: it was easier to remember the Blood stuff. The other trouble was that the Blood player usually won, but winning meant you inherited a wasteland. This was the point of the game, said Crake, when Jimmy complained (80).

The above extract explores Atwood's problematisation of Crake reducing humanity to "the Blood stuff" (80). Here she foreshadows the Waterless Flood as she states that the Blood player inherits a wasteland. Crake's BlyssPluss Pill results in a large-scale atrocity, turning human-made infrastructure into a wasteland. Despite this, by the final text in the trilogy, a sort of revival takes place, and a kind of post-humanity begins to take shape. Crake's attempt to obliterate humanity and begin anew is also far from successful as Jimmy is left to take care of the Crakers. Furthermore, we see Jung's theory present in Atwood's exploration through the re-emergence of the aspects of the human condition present in the collective unconscious. A conversation between Jimmy and Crake shows Crake's oversimplified thinking countered by Jimmy's more optimistic view of humankind,

> "Let's suppose for the sake of argument," said Crake one evening, "that civilisation as we know it gets destroyed" … "Once it's flattened, it could never be rebuilt." …
> "It could be put back together," said Jimmy (223)

Despite his dismal view of humanity and the assertion that we are simply victims of our biology, Crake holds himself in high regard, thus exemplifying the hubristic nature of his science,

> It's comforting to remember that *Homo sapiens sapiens* was once so ingenious with language, and not only with language. Ingenious in every direction at once.
>
> Monkey brains had been Crake's opinion. Monkey paws, monkey curiosity, the desire to take apart, turn inside out, smell, fondle, measure, improve, trash, discard — all hooked up to monkey brains, an advanced model of monkey brains, but monkey brains all the same. Crake had no very high opinion of human ingenuity, despite the large amount of it he himself possessed (99).

Later in the novel, we again witness Crake's crude reductionist view as he explains to Jimmy that his BlyssPluss Pill, meant to steer human beings in a more beneficial direction, is based on studies of the extinct bonobo chimpanzees (293). This highlights Crake's ignorance of human psychology as his studies are based on an extinct creature which despite being "a close relative of *Homo sapiens sapiens*" (293) is far removed from the complex psychological evolution of the human which has resulted in the accumulation of primordial images, "the ancient common property of all humanity" (Jung 71). Crake deduces that the creatures' lack of "intraspecific aggression" was owed to their promiscuity (293-4), thus concluding that if the same phenomenon could be created in human beings the results would be the same. Crake's reductionist approach to the human issue of war, which he believes is owed to "misplaced sexual energy" (293) also highlights his very reductionist view of humanity. Of course, we later learn that this pill was in fact created to wipe out the entire human race, however, through his feigned pitch to Jimmy regarding this pill we gain further insight into Crake's view of the world. The Crakers largely resemble human beings in their physical form, however, they are the product of animal genetic material inserted into a human embryo. Through her decision to represent so-called 'perfect' beings as comprising of both human and animal genetic material Atwood further subverts the belief in human exceptionalism and superiority just as she does with the creation of the pigoons. The aspects of the Crakers that make them quite remarkable are in fact traits borrowed from nonhuman genetic code. A few of these genetic alterations fashioned from the genetic makeup of animals include purring as a means of healing, "Crake had worked for years on the purring. Once he'd discovered that the cat family purred at the same frequency as the ultrasound used on bone fractures and skin lesions and were thus equipped with their own self-healing mechanism, he'd turned himself inside out in the attempt to install that feature" (156). A second trait that the

Crakers possess which contributes to their being optimal beings is that of caecotrophy, or the maximisation of nutrient absorption through ingesting excrement made of partially digested plant matter. Jimmy explains that Crake 'stole' this idea from hares and rabbits (159).

Crake's obsession with creating a perfect being is a result of a multitude of contributing factors. Firstly, on a personal level, this desire could stem from his own traumatic upbringing. Through creating so-called 'perfect' beings Crake might have hoped to alleviate the suffering he personally has endured. For example, Crake's personal fears regarding the uncertain nature of his own life and of humanity as a whole could have prompted him to create the Crakers to be free from fear (303). His own broken family explains his decision to create the Crakers in such a way that they would not have "family trees", "marriages" or "divorces" (305). Furthermore, Crake's desire could have stemmed from his own social ineptitude. While Crake in many ways appears to be void of normal human emotions, a deeper analysis of his character has exposed how he is deeply plagued by emotions of jealousy and desire. His failure to harbour a monogamous relationship with Oryx, whom he was deeply in love with (313), points to his decision to create the Crakers to be polygamous, thus preventing them from being encumbered by the same feelings of jealousy (Bouzet 74) he himself felt. The polyandrous nature of the Crakers is also a trait borrowed from other species:

> There'll be the standard quintuplet, four men and the woman in heat. Her condition will be obvious to all from the bright blue colour of her buttocks and abdomen - a trick of variable pigmentation filched from the baboons, with a contribution from the expendable chromophores of the octopus… Since it's only the blue tissue and the pheromones released by it that stimulate the males, there's no more unrequited love…no more thwarted lust; no more shadow between the desire and the act… Sex is no longer a mysterious rite, viewed with ambivalence or downright loathing, conducted in the dark and inspiring suicides and murders (164-5).

Snowman foreshadows the death of Oryx, referring to the notion of "*If I can't have you nobody will*" (166) which is essentially the case with Crake's decision to murder Oryx. Crake recognises that he is burdened by human emotions which he wishes to eradicate from the Crakers, emotions he is ill-equipped to manage. This sheds some light on his decision to kill Oryx, the person who

exacerbates these emotions, as he knows that Jimmy will then kill him. We then have a clearer understanding of Crake's decision to bring Jimmy to Paradice and to administer the vaccination to him to ensure his survival. Snowman recalls a conversation between himself and Crake which again exposes Crake's reductionist and condescending view of humanity as he exclaims,

> how much needless despair has been caused by a series of biological mismatches, a misalignment of the hormones and pheromones? Resulting in fact that the one you love so passionately won't or can't love you. As a species we're pathetic in that way. (166)

Beyond the above reasons, Crake's desire to create a perfect human race stems from a place of hubris. This hubris is abundantly clear in his decision to give all of the Crakers green eyes which match his own; this is reminiscent of the biblical passage from Genesis 1:27 which states, "So God created man in His own image; in the image of God He created him; male and female He created them". This also points to the aforementioned fulfilment of his God complex through the Crakers' deification of him which he becomes aware of before his death, yet he chooses not to interfere with the Crakers' image of himself as their maker. We see then the risk of scientists playing God as a result of advancements in the field of genetic engineering giving them the ability to meddle with the building blocks of life. This interplay with religious tradition evident in the subtext of Atwood's writing is carried through more explicitly in *The Year of the Flood* and *MaddAddam*. The way in which this first text deals with religion largely sets up the way in which it is presented in the following texts. In *Oryx and Crake* we are presented with a society in which the positive teachings of kindness and compassion present in Christianity are largely absent. Furthermore the reader is presented with an atheist, scientific exploration of society. What we read about in this first text is the way in which scientific progress allows for people in this field to "play God". It is also in this text that we are made aware of the presence of Jung's psychological theory in Atwood's writing. Through the Crakers, Atwood suggests that we are naturally inclined towards religion and symbolism rooted in a human desire for meaning. This closely aligns with Jung's theory that the idea of god "has been stamped upon the human brain for æons of time, and so lies ready in the unconscious of every man" (71). Jung explains this saying,

> The concept of god is simply a necessary psychological function… which has nothing to do with the question of the existence of god. The human intellect can never answer this question, and still less can it give any proof of god. Furthermore, such proof is altogether superfluous, for the idea of an all-powerful divine being is present everywhere, if not consciously recognised, then unconsciously accepted. (73-4)

Through these re-emerging aspects Atwood points to Jung's collective unconscious, suggesting that instead of attempting to overcome the human we need to be cognisant of that which ultimately makes us human and then proceed accordingly into a posthuman era. Ultimately, *Oryx and Crake* presents the reader with a scientifically based creation story followed by a human-driven Fall of Man. By the final text of the trilogy, we become aware of Atwood's exploration of the prevalence of cosmogonic myth and storytelling as the events of *Oryx and Crake* mutate into the stories which are recited to the Crakers.

Crake's motivation for creating these 'perfect' beings is also as a result of the dystopic nature of the society in which he lives. As such, he aims to create a utopic society free from all the things which he deems flawed. Through this Atwood once again highlights her notion of 'ustopia,' as Crake's utopic vision contains dystopic elements in that he obliterates humanity to achieve his vision, and this vision largely stems from the trauma of his personal unconscious. Alban explains that "Crake's significant failure to destroy and recreate the world in a superior form arises from his scientific rationality" (97). Atwood posits that Crake's ignorance of human psychology is the downfall of his posthuman vision. Crake's fixation on amending the external causes of the issues faced by humanity means that he ignores the psychological factors which contribute to these behaviours. Atwood points to the importance of considering human psychology in a posthuman shift through depictions of ancient human beliefs and traditions re-emerging in the posthuman Crakers. Jung explains that the re-emergence of this collective unconscious "needs only certain conditions in order to reappear" (71). The presence of human survivors, who also possess this collective unconscious, only fast tracks this re-appearance. Despite the atrocity carried out by Crake, the consequences of his actions allow for the human survivors to practice survivalist anthropocentrism as the dismantling of the problematised society represented in the text enables them to live in a world in which judgement emanates from nature rather than from hierarchies

and dualism formed out of the enactment of harmful anthropocentrism and the commodification of all life. Unlike most eco-dystopian fiction which presents the reader with the destruction of the natural world at the hands of human beings, Atwood presents us with an alternative ending. Instead of suggesting the end of the world, she explores the end of the Anthropocene.

Chapter Three: *The Year of the Flood*

The second book in Atwood's trilogy was published six years after the first. *The Year of the Flood* has a very different thematic emphasis when compared with *Oryx and* Crake. In fact, this second novel in many ways acts as an antidote to its predecessor, both in the female perspective that it provides, and in its depictions of compassion. While *Oryx and Crake* can be understood as a warning about hubristic science and a posthuman shift characterised by scientific advancement alone, *The Year of the Flood* supports my stance that a more favourable shift into a posthuman era would consider human psychology and the environment. The text subverts the negative humanist thinking present in the previous text by exploring the perspectives of female characters from a different socio-economic bracket, pointing to the theory of Critical and Philosophical posthumanism which posits the importance of first deconstructing the notion of the human to include the voice of the 'other' in a posthuman shift. However, the text also explores some of the limitations pertaining to a shift of this nature. While Atwood's scepticism of a techno-scientific posthuman shift amounts to a critique of anthropocentrism, she counters this by examining the issues with a wholesale abandonment of this worldview.

In this text Atwood furthers her exploration of what a more beneficial posthuman shift might look like. The dialectical sensibility of her writing is carried through into this text as she explores the other side of contemporary posthuman theory, assessing both its limitations and its benefits. Furthermore, she plays close attention to the issue of religion. In *Oryx and Crake* Atwood explores religion as a phenomenon of the collective unconscious and its re-emergence within the genetically engineered, posthuman Crakers. In this text Atwood explores the ways in which our irrepressible inclination for meaning could best be incorporated within a posthuman society. She pays particular attention to the ways in which an eco-religion could assist in the encouragement of survivalist anthropocentrism that does not involve the exploitation of other species. These explorations ultimately further her assertion of the importance of considering the psychological in a posthuman shift as she furthers her exploration of the collective unconscious as not only consisting of an inclination towards religion and mythology, but also towards survivalism.

The Year of the Flood tells of the same period as *Oryx and Crake*; however, it extends slightly further into the future. In *In Other Worlds* Atwood describes this text not as a sequel nor as a prequel to *Oryx and Crake,* instead she explains that the texts "are more like chapters of the same book" (149). Despite the shared timeline, the text offers a very different perspective of the same pre- and post-apocalyptic world that we know from *Oryx and Crake*. In doing so, Atwood highlights the importance of hearing the story from this different perspective – as opposed to continuing with a limited narrative frame furthering her balanced writing. Furthermore, presenting the pasts of characters with different social positions better contextualises the present positions occupied by these characters in the post-apocalyptic world (Appleton 1). The text extends slightly into the future as the paths of characters from the previous novel coincide with the main characters from this text, thus setting up not only the narrative structure but also the social structure of the final text. The framework of this text emphasises Atwood's point that attitudes toward environmental issues in many ways mirror gender issues (Grimbeek 52). The greatest difference observed is the fact that this text is narrated by two females, whereas *Oryx and Crake* was narrated by male character Jimmy/Snowman. Another difference is the fact that this text gives the reader greater insight into life in the pleeblands as opposed to the Compounds. Moreover, this text considers the environment in a way which *Oryx and Crake* does not. The first text explores the ways in which the environment has been destroyed through human actions and massification – however, it is largely focused on science. This second text also looks at environmental destruction – however, Atwood begins to dismantle the dichotomies presented in *Oryx and Crake* by drawing the reader's attention to the transcorporeality of humans and the natural world. If we look back to the epigraphs provided in *Oryx and Crake* we see, then, that the order and point of view given in these epigraphs in many ways mimics the order and point of view of the first two texts of the trilogy.

Rather than a quote, *The Year of the Flood* begins with a poem taken from the hymn book of Atwood's fictional religion the God's Gardeners entitled 'The Garden',

> Who is it tends the Garden,
> The Garden oh so green?
> 'Twas once the finest Garden

That ever has been seen.
And in it God's dear Creatures
Did swim and fly and play;
But then came greedy Spoilers,
And killed them all away… (From *The God's Gardeners Oral Hymnbook*)

While the epigraphs of *Oryx and Crake* are taken from the works of two renowned authors (Swift and Woolf), this introductory hymn can hardly be described as excellent song writing or poetry. Thus, from the start of this novel Atwood begins her biting yet compassionate critique of the Gardeners. *The Year of the Flood* is told from the point of view of Toby and Ren, both of whom were members of an eco-sect, the God's Gardeners. The narrative is also comprised of various hymns taken from *The God's Gardeners Oral Hymnbook* as well as sermons given by Gardener leader, Adam One. The above hymn provides a clear insight into the core beliefs of Atwood's fictional sect, particularly their environmentalist concerns and their rejection of the consumerist behaviour evident throughout *Oryx and Crake*. "The Garden", a metaphor for the Earth, is described as having been ravaged by "greedy Spoilers" whom we can assume to be mega corporations and all those that support this economic system. In *Oryx and Crake,* we are made aware of the science carried out within the Compounds while *The Year of the Flood* explores how this science is marketed to those living in the pleeblands and the devastating effects it has on the lives of civilians. The speculations which get Crake's father killed are confirmed in this text through the story of Toby's mother. In *Oryx and Crake,* during a conversation between Crake and Jimmy, Crake explains how HelthWyzer created diseases to sell more of their drugs and procedures to cure these very diseases:

> They put the hostile bio forms into their vitamin pills — their HelthWyzer over-the-counter premium brand…Naturally they develop the antidotes at the same time as they're customizing the bugs, but they hold those in reserve, they practise the economics of scarcity, so they're guaranteed high profits…the patient should either get well or die just before all of his or her money runs out (211)

In *The Year of the Flood,* we read of Toby's mother becoming sick with an unknown illness. This confuses Toby and her father as she has led a healthy life, "she took a dose of HelthWyzer Hi-Potency VitalVite supplements daily" (31). However, the more supplements she takes the more ill she becomes. Toby's father struggles tremendously to fund his wife's care, and when he finally runs out of money Toby's mother passes away. Later in the text Pilar asks Toby, "Did it ever occur to you, my dear…that your mother may have been a guinea pig?" (125). This clearly depicts the connection between the two texts, particularly how the science created in the Compounds affects those living in the pleebs. Thus, we see a continuation of Atwood's critique of irresponsible science driven by profit motives.

The Gardeners live on a rooftop within the pleeblands which they have named Edencliff Rooftop Garden. Here the Gardeners live a sustainable life eating a vegetarian diet consisting largely of foods grown at Edencliff, as well as preparing their own herbal remedies. The Gardeners all wear the same homemade, dark, sack-like clothing and none of the women cut their hair (55). Their low-waste lifestyle means that the Gardeners collect items which have been disposed of, a practice which they term "gleaning" (83). They refrain from using technology to remain untraceable and out-of-touch with what they refer to as the "Exfernal World" (71). On a surface level the life led by the Gardeners appears admirable, characterised by a great sense of community and practices rooted in the survivalism that Atwood advocates. However, when this is scrutinised more closely, we recognise the flaws that exist within their belief system and the ways in which they conduct themselves. Through this group Atwood continues her exploration of a shift into a posthuman era. These behaviours and belief systems closely resemble those of Critical and Philosophical posthumanism. Like these movements, the God's Gardeners aim to deconstruct the foundations on which the notion of the human is built, particularly the notion of anthropocentrism. The God's Gardeners reject the consumerist lifestyle adopted by the majority of the civilians in the world of the text where everything has been commodified (Suchostawska 98). Adam One explains that because of this, the Compounders view the members of the sect as, "twisted fanatics who combine food extremism with bad fashion sense and a puritanical attitude towards shopping" (58). This is a clear example of Atwood's utilisation of humour throughout the trilogy. The sarcasm in the above quote does not appear merely as cheap humour, instead she uses this technique to balance the shifting of blame. While she certainly critiques giant

corporations as well as the consumerist mentality of civilians by highlighting their condescending attitude to those members of society who choose to live a more environmentally sound life, she is equally critical of the rebels' extremist behaviours. Within the setting of a hyper-consumerist society the non-anthropocentric behaviours of the Gardeners go against societal norms. The Gardeners deprive themselves of many earthly pleasures in order to live a more ecologically sound life, however, this results in the inadvertent enactment of self-abnegation and masochism. With that being said, the Gardeners also display behaviours rooted in the survivalism which Atwood posits as desirable for a posthuman era. These contradictory behaviours displayed by the Gardeners highlight the difficulty in achieving a balance between abandoning anthropocentrism altogether and practicing anthropocentrism rooted in survivalism, particularly within industrialised, mass society. This relates back to Jung's claim that "[the collective unconscious] needs only certain conditions in order to reappear" (71), as it is only after the world has been ravaged by the Waterless Flood that the Gardener's survivalism becomes fully apparent. A limitation in Atwood's posthuman vision, then, is that these "conditions" are a post-apocalyptic world in which human needs are not readily provided for by massification and mass production. Instead, within the post-apocalyptic world the human survivors have to live according to the laws of nature and tap into this survival instinct rooted in the collective unconscious. Atwood points to the fact that a large problem with human beings is not necessarily our nature, but our number and the industries which provide to this number. Hence, after the population is diminished, the natural world flourishes. This makes it difficult to imagine how we might adopt Atwood's posthuman vision in our current society. With that being said, through the character of Toby, Atwood depicts a more balanced enactment of innate survivalism alongside eco-religion as Toby participates in many of the Gardener rituals though she remains sceptical of some of their ideologies.

Bouson describes the trilogy as being comprised of "admonitory satires" (qtd. Howells 76). While Atwood certainly expresses concern regarding the rampant destruction of the natural world, I would not describe her tone or use of satire as "admonitory". The very presence of humour throughout the trilogy subverts the suggestion that Atwood aims to reprimand or present a strident warning to her readers. Dvorák's exploration of Atwood's writing style appears more accurate as it explains how the narratives of the first two texts present "dialogues that stage

figures representing the socioeconomic communities being targeted" and that the characters which embody the "ideas or values" in question are presented in a humorous way (134). While Crake embodies hubristic science, depicted through his emotional and social ineptitude and "mad scientist erudition" (135), the God's Gardeners stand as the embodiment of the opposite extreme. With that being said, *The Year of the Flood* does not only explore this eco-extremist group, it also takes a closer look at consumers. The simple lifestyle of the Gardeners is greatly contrasted against that of the "pleebrats", the antithesis of everything Gardener:

> Those girls were wearing the sort of clothes they usually wore: miniskirts and spangled tops, candy floss boas around their necks, silver gloves, plasticized butterflies clipped into their hair. They had their Sea/H/Ear Candies and their burning-bright phones and their jellyfish bracelets, and they were showing off. . . They looked as if they owned everything from every single store and were bored with it. (87)

Atwood's critique of the teenage male is conducted through the questionable pastimes of Crake and Jimmy as she depicts the pair playing disturbing online games, watching depraved videos, and smoking marijuana, a sharp but arguably fair critique. In *Curious Pursuits* Atwood includes a chapter entitled "Writing the Male Character". As a female author her depictions of male characters might be construed as hyperbolised or stemming from a place of indignation, however, Atwood explains the female author's depiction of male characters saying,

> Thus one must conclude that the less than commendable behaviour of male characters in certain novels by women is not necessarily due to a warped view of the opposite sex on behalf of the authors. Could it be. . . I say it hesitantly, in a whisper, since like most women I cringe at the very thought of being called — how can I even say it — *a man-hater*. . . could it be that the behaviour of some men in what we are fond of considering real life. . . could it be that not every man always behaves well? . . . If a man depicts a male character unfavourably, it's The Human Condition; if a woman does it, she's being mean to men (52, 56).

As explained in the previous chapter, Atwood's satirical writing is balanced in that she does not hold one demographic, be it corporation or consumer, or male or female, as solely responsible for any given issue. Rather she recognises the role that each entity, group, or person plays in issues faced by societies. The above extract from *The Year of the Flood* depicts Atwood's critique of the contemporary female teenager and their unabating, insatiable desire for things. She also explores the vanity of female characters as Ren's mother, once a Compound dweller, sits and brushes her hair while staring at herself in the one small mirror they own (79). Ren explains how despite not being wealthy the "pleebrats" were always glittery (80). We see how the young girls own or desire arbitrary products such as 'jellyfish bracelets' (88). These depictions counter the previous critiques of the junk "wave of the future" products created and marketed by Compounds; Atwood explores the part that individual lifestyles play in contributing to environmental degradation. These descriptions of both male and female youths clearly show how Atwood's explorations of the human are not based solely on the psychological theory which she considers, but also on her own thorough observations of how people behave. As much as she borrows from archetypal theory in the construction of her characters, she contributes to these archetypes which, while they maintain a degree of regularity, are surely mutable in a rapidly changing world. Jung's theory of the collective unconscious is dynamic in that the ancient archetypes that he identified as existing within our collective unconscious are applicable in a world vastly different from the one in which Jung lived. What Atwood presents us with then is an exploration of these archetypes within the context of a near future, as she extrapolates not only the scientific and technological advancements which may take place, but also how the various archetypes may conduct themselves in these environments. For example, despite being genetically engineered beings the Crakers nonetheless embody the archetype of the Innocent, while Crake appears as the Hero. While the archetype of Hero might seem ironic in the context of Crake, his God complex closely resembles the saviour complex explored by Jung as Crake's intentions are good by his own definition of the word.

The God's Gardeners are first introduced to the reader as Toby explains how she was saved from her abusive boss by Gardener leader Adam One (51). Here we see not only the kindness of the Gardeners, but also how they essentially remove people from the troubled "Exfernal World" and integrate them into their eco-conscious sanctuary. While Adam One's choice to save Toby from

Blanco is certainly admirable, we cannot ignore how the Gardeners proselytize people into joining their cause as they take to the streets to preach their message (48). At first Toby imagines the sect's garden to be "A wodge of drying mud, a few draggled marigolds, a mangy row of pathetic beans, broiling in the unforgiving sun" (48), however, we later learn that the garden is much more than this dismal imagining, rather "it was so beautiful, with plants and flowers of many kinds she'd never seen before" (52). This highlights not only the misconceptions held about the God's Gardeners, but this description also points to Atwood's suggestion that we can adopt a more environmentally friendly lifestyle, even within industrialised mass society. She does, however, show us that an adoption of this lifestyle would require us to sacrifice a degree of the comfort afforded to us by this society. Toby describes the members as "friendly though bizarre people", and their religion as "wacky" (53). This speaks to Atwood's treatment of the sect. While she certainly mocks aspects of the group, attention is drawn to the overwhelmingly positive factors in the lives of the God's Gardeners such as their respect for the environment, their low-waste lifestyle, their holistic approach to education, as well as their ability to grow their own food and make their own medicine. In this way the Gardeners are not totally dissimilar to the Crakers. Atwood uses each to explore the two main approaches to the posthuman with the Gardeners embodying a philosophical approach, while the Crakers represent a physically amended posthuman. Despite the difference in approach, both the Crakers and the Gardeners are presented to the reader as environmentally friendly beings. The posthuman era presented to us by Atwood is comprised mostly of ex-Gardeners and Crakers, thus Atwood suggests that her posthuman vision is characterised by a shift towards ecologically sound behaviours. Furthermore, the existing religious nature of the God's Gardeners as well as the re-emergence of religion within the Crakers suggests that our inclination towards religion has a place in her posthuman vision too. Atwood's observations and critiques of religion as it is carried out by the God's Gardeners amounts to an exploration of the ways in which this irrepressible inclination towards religion can be both beneficial and limiting. This tendency towards religion is ultimately a human desire for meaning. Jung explains, "the same way that the body needs food…the psyche needs to know the meaning of its existence" (13). Atwood considers this inclination by exploring the ways in which it is used to promote a more symbiotic relationship with nature, but also how it can mutate into cult mentality which breeds the negative attributes we observe in the Gardeners. This ultimately points to the difficulties that may arise in a posthuman era, as the re-

emergence of religion amongst the Crakers can easily be informed by the same limiting factors of the troubling aspects of the Gardener's ideology.

Atwood's decision to foreground the positive aspects of the God's Gardeners points to what she has to say about religion. In the previous novel Atwood explores the dangers of science, however, she does not argue that science as a field is 'bad'. Rather she warns against the dangers of science as it is utilised by human beings – for example, through the narcissistic hubris of Crake. In the same way, she explores how religion forms an integral part of the human condition present in our shared collective unconscious, yet she acknowledges that problems do arise when extremist behaviour is enacted such as the masochistic altruism of the Gardeners.
If we look at the belief system of the God's Gardeners, we recognise how Atwood has intertwined aspects of Christianity and other religions with environmentalism, however, scientific thought is also noted (Collier 5). Before delving further into Atwood's fictional religion, it would be beneficial to briefly address the differences between the God's Gardeners and the religion from which many of the sect's beliefs and practices are derived: Christianity. The greatest difference observed is the Gardeners' extreme rejection of anthropocentrism and their focus on ecology. David G. Horrell author of *The Bible and the Environment: Towards a Critical Ecological Biblical Theology* describes the Bible as "ambivalent and ambitious in terms of its ecological implications", thus allowing for various readings of the text regarding ecology (qtd. Suchostawska 98). Scriptures can be understood as offering a moral code, which in turn can inspire environmental ethics and encourage a respect for all things created by God. However, these same scriptures can "justify [the] exploitation of nature for human needs" (98). George Rupp explores this binary reading of the Bible further,

> The destiny of the faithful is, after all, not to be realized in worldly rulership… This otherworldly orientation can, of course, cut both ways. It may lead to a disengagement that is, paradoxically, friendly to the environment from which it is estranged. But it may also result in the exploitation of the fallen world precisely because it is viewed as lacking intrinsic value. (24)

It is evident, then, that a split exists in the Christian view of the environment as some interpretations see the environment as only holding instrumental value, while another view sees God as existing within the natural world as the environment is a product of God's creation (Grasse 4).

While any human views are technically anthropocentric in nature, in that these views are derived from human experience, a specific aspect of anthropocentrism that can be observed in Christianity is the notion that human beings are the only entity within the universe that hold intrinsic value (Grasse 2). It should be noted that while anthropocentrism is not a belief system on its own, it moulds one's worldview allowing for anthropocentric beliefs to be incorporated into belief systems such as those of Christian doctrine. The scripture which is often used to justify anthropocentrism within Christian teachings is found in Genesis 1:26-28 where we read that humankind was created in God's likeness and that human beings "have dominion over the fish of the sea, over the birds of the air, and over the cattle, over all the earth and over every creeping thing that creeps on the earth". While this scripture speaks of "dominion" it does not speak of humans as being the sole proprietors of intrinsic value. However, it has been interpreted as humans having a right rather than a responsibility to nature. The second chapter of *The Year of the Flood* entitled "Creation Day" tells of how the God's Gardeners came to be. In a sermon given by Adam One he refers to the traditional story of creation as "The Human Words of God" (13). In doing so, he problematises not only the anthropocentric nature of religious dogma, but also the absence of scientific rhetoric in these teachings. He mentions the interpretive nature of the bible and how its teachings were written in such a way as to be understood by "the men of old" (13). He explains that one should not ignore the observable data provided by science, nor condense one's perception of God to "Human measurements" (14). He criticises an anthropocentric reading of the bible, but also critiques the notion that scientific data which refutes the bible is sufficient to refute God's existence. This once more points to Atwood's dialectical sensibility as she again suggests that things cannot be considered in isolation and that a more constructive approach to issues pertaining to the human can best be understood by considering aspects holistically as opposed to through a binary lens. While the Gardeners certainly embody issues pertaining to religion through their cult like mentalities and masochistic behaviours, they also represent the enactment of eco-religion.

The hymn following this sermon speaks about how human beings have broken the fellowship that once existed between humans and all other creatures:

> When Adam first had breath of life
> All in that golden place,
> He dwelt in peace with Bird and Beast,
> And knew God face to face . . .
>
> How shrunk, how dwindled, in our times
> Creation's mighty seed -
> For Man has broke the Fellowship
> With murder, lust, and greed (From *The God's Gardeners Oral Hymnbook*)

Atwood addresses interpretations of the bible which see nature as inferior to human beings through Adam One's sermon on "The Feast of Serpent Wisdom" (277). During this sermon Adam One explains that our proclamations of faith in no way allow us to feel superior to other life forms. Rather animals have no need for faith as they possess an "inborn knowledge" (279). This relates back to Jung's theory of the collective unconscious which explains that humans, too, possess this "inborn knowledge" of god/s. Jung explains that where this phenomenon becomes distorted is in man's belief that this "inborn knowledge" is the existence of that "godliness" within man himself (75). If anything, the thought processes of which animals are not capable, and which human beings use as a measure of superiority, draw us further from our faith: "We cannot know God by reason and measurement; indeed, excess reason and measurement lead to doubt… We Humans must labour to believe, as the other Creatures do not" (279). While in traditional Christian teachings the serpent symbolises evil, the creature which tempted Eve in the Garden of Eden, Gardener theology deconstructs this theological speciesism:

> As for the Serpent, who can tell where its head ends and its body begins? It experiences God in all parts of itself; it feels the vibrations of Divinity that run through the Earth, and responds to them quicker than thought. This then is the Serpent Wisdom we long for – this wholeness of Being. (279)

Here we also notice Atwood's capitalisation of "Human", "Creatures", and "Earth", further suggesting the Gardener's view of nature as "a place to encounter the divinity of God" (Collier 10). She counters anthropocentric readings of the bible by exploring the cornerstone of the God's Gardeners' theology, their conviction that all life is sacred based on being the product of God's hand. She does so by providing their interpretation of the covenant that God made not just with Noah, but with all living creatures (Collier 8). Through the conventional biblical story of Noah, the God's Gardeners draw attention to their non-anthropocentrism:

> Therefore the Animals are not senseless matter, not mere chunks of meat. No; they have living Souls, or God could not have made a Covenant with them. The Human Words of God affirm this. (109-10)

When conducting my own reading on Christianity and ecology, I found numerous references to the work of Christian Lynn White. In 1967 White wrote an essay in which he pinpoints Judaeo-Christian religion as a perpetrator of ecological abuse, which has in turn resulted in environmental degradation and loss of biodiversity (qtd. Grasse 5). While Judeo-Christianity has certainly not been the only perpetrator of ecological crimes in the name of religion, an exploration of this is relevant to Atwood's text as this is the faith which she closely explores and critiques in this regard. White deduced that the only way to alter this problem was to restructure the way in which religion thinks about ecology (5). This is precisely what Atwood does through the God's Gardeners. Through their teachings based on Christianity she explores the egalitarian nature of early Christianity, reminding us that before religion became a bureaucracy it was about surviving on Earth with other life forms. Through reference to two proposed approaches Grasse explores possible ways to rethink religion in a way that promotes environmentally friendly behaviour. The first proposed by Paul Santmire involves a reinterpretation of scripture which reframes Christian doctrine; the second involves the establishment of an ecological Christian theology outside of existing scripture (6). The first approach is highly plausible, because a reconsideration of previously held anthropocentric views would allow for one to conduct an ecological reading of the bible (6). Santmire suggests that an ecological reading of the bible might in turn "lead to a more balanced and less anthropocentric ecological theology" (qtd.

Grasse 6). The second approach put forward by James Nash calls for the development of an ecological theology based on Christian principles borrowed from the Bible. He argues against Santmire's approach saying, "Christian ethics is not synonymous with biblical ethics" (qtd. Grasse 8). Furthermore, he views the bible as, "far too ambiguous to be able to develop any semblance of a concrete ecological theology" (Grasse 7).

Through the God's Gardeners Atwood provides us with a non-binaristic, amalgamation of the two approaches. While Adam One reframes many traditional biblical stories in a more ecological way, we also recognise that much of the Gardener's ecologically sound behaviour is not derived directly from scripture. Rather it is the Christian principles of love, faith, charity, and justice which influence their actions (Grasse 8). Furthermore, the God's Gardeners develop a unique ecological theology through their hymns, feast and saint days, and the teachings of Adam One. Returning to the sect's deviations from traditional Christianity, one can explore the scientific aspects of the God's Gardeners and the significance of Atwood's choice to include this aspect in her fictional sect. As previously explored, Atwood is in no way anti-science, instead she is anti the problematic approaches to and intentions of scientific progress. While Atwood draws our attention to the ecological aspects of Christianity, the sect's environmentalism is largely rooted in science. In blending religion and environmentalism, and giving a voice to radical environmentalist ideas, Atwood suggests that "unless environmentalism becomes a religion it's not going to work…You must believe that come what may this is the thing to do" (qtd Suchostawska 105). Through this Atwood suggests that like religion, environmentalism requires faith and a dedication to the cause, it involves implementing ritualistic practices into one's daily routine and continuing to live one's life in accordance with these practices despite a lack of tangible proof of the efficacy of these practices. I have previously explained that a limitation of Atwood's posthuman vision is that in her texts the enactment of environmentally sound behaviour paired with survivalism rather than anti-anthropocentrism only takes place after the apocalypse. However, this view of environmentalism as becoming a religion is a stance which could be adopted now. A merging of religion and ecology is beneficial in that, as suggested by Jung, we desire to know the meaning of our existence. This desire often manifests as an inclination towards religion; as such this inclination would best be directed towards a religion rooted in ecology. Furthermore, just as the practicing of religion requires us to refrain from

certain behaviours, so a combination of religion and ecology might encourage people to refrain from environmentally destructive behaviours despite the pleasures that accompany hyper-consumerism.

In an interview with *Sojourners* magazine, Atwood explains that many people who fly under the Christian flag do not display Christian behaviours. She goes on to explain that a true expression of Christian ideology would involve a consideration of ecological issues,

> And that would include also concern for the environment, because you can't love your neighbor or even your enemy, unless you love your neighbor's oxygen, food, and water. You can't love your neighbor or your enemy if you're presuming policies that are going to cause those people to die. (qtd. Williams)

When asked about the connection between environmental justice, economics and religion Atwood speaks about how inaction in relation to climate change results in the perpetuation and creation of social injustices. She continues explaining how she believes that major faiths need to assume some responsibility as, "they actually have some leverage in their hands that could move the conversation". We saw the beginnings of this in Pope Francis's 2015 letter:

> Never have we so hurt and mistreated our common home as we have in the last two hundred years. Yet we are called to be instruments of God our Father, so that our planet might be what he desired when he created it and correspond with his plan for peace, beauty, and fullness. (Laudato Si' 53)

A more consistent religious voice at the forefront of ecological issues has been that of the Dalai Lama who urges people to recognise the importance of ecologically sound behaviours, "Today, more than ever before, life must be characterised by a sense of Universal responsibility, not only nation to nation and human to human, but also human to other life forms" (Dalailama 2008). The God's Gardeners act as an imagining of environmentalism as a religion. During her book tour for *The Year of the Flood,* Atwood visited churches and recruited singers to perform the hymns and sermons which interrupt the narrative of the text. Collier explains how Atwood's

choice to conduct a book tour in this manner "brought the Gardeners and their hymns to life, giving their theology greater dimension and importance" (8). The chorus traditionally acts as an underscoring of the major themes aimed directly at the audience, thus the Gardener hymns fulfil this same choric function in highlighting the main theme which Atwood wishes to draw her readership's attention to: ecology. We also note this musical aspect in the Crakers who participate in singing, a trait Crake was unable to engineer out of them without eliminating all brain function. The Crakers are only introduced at the very end of *The Year of the Flood* not formally, but instead through the sound of their singing. This introduction reiterates the centrality of Jung's collective unconscious not only in relation to religion but also to music,

> "Listen to the music." He tilts his head to the side; his expression is rapturous. "You can't kill the music," he says. "You can't!"
>
> "What music?" I say, because I don't hear anything.
>
> "Quiet," says Toby.
>
> We listen. Jimmy's right, there is music. It's faint and far away, but moving closer. It's the sound of many people singing. Now we can see the flickering of their torches, winding towards us through the darkness of the trees. (516)

Through this Atwood foreshadows the re-emergence of human traits within the posthuman Crakers as a result of the unconsidered collective unconscious, but she also draws further connections between these beings and the Gardeners pointing to the ways in which the dialectical aspects of the various approaches to the posthuman are best understood holistically through a recognition of their interconnectedness. We further note the presence of science in the God's Gardeners through their reference to Darwin's theory of evolution. On The Feast of Adam and All Primates, Adam One speaks on how anthropocentrism rooted in human chauvinism has led people to believe that we could not have come from monkeys: "On the Feast of Adam and All Primates, we affirm our Primate ancestry - an affirmation that has brought down wrath upon us from those who arrogantly persist in evolutionary denial" (61). However, he also criticises those who use this theory as a means of denying God's existence, showing the sect's belief in both science and religion: "But we affirm, also, the Divine agency that has caused us to be created in the way that we were, and this has enraged those scientific fools who say in their hearts, 'There

is no God.' These claim to prove the non-existence of God because they cannot put Him in a test tube and weigh and measure Him" (62). Besides Adam One, a few of the other Gardeners have come from a scientific background. In the final text of the trilogy we read that many of the Gardeners used to work as scientists within the Compounds (18); we also know that Toby has studied homeopathy at Martha Graham (55). This in many ways mimics Atwood's own decision to pursue a career within the humanities as opposed to within the sciences. In the case of the Gardeners, however, we see how they choose to adapt from practising profit-driven science which exacerbated ecological issues, to using their knowledge to live in a more sustainable fashion. Adam One furthers this exploration of incorporating religion into environmentalism in a conversation with Toby:

> 'We've evolved to believe in gods, so this belief bias of ours must confer an evolutionary advantage. The strictly materialist view – that we're an experiment animal protein has been doing on itself – is far too harsh and lonely for most, leads to nihilism. That being the case, we need to push popular sentiment in a biosphere-friendly direction by pointing out the hazards of annoying God by a violation of His trust in our stewardship.'
> 'What you mean is, with God in the story there's a penalty,' said Toby.
> 'Yes,' said Adam One. 'There's a penalty without God in the story too, needless to say. But people are less likely to credit that. If there's a penalty, they want a penalizer. They dislike senseless catastrophe. (287-8)

This is interesting as it leads the reader to question Adam's personal beliefs on the matter of God. The quote highlights Adam's choice to use religion as the vehicle to deliver his environmental message. It suggests that what Adam deems important is not the existence of God, but rather belief in the existence of God. Jung notes this in his work on the collective unconscious saying that it is the concept of 'god' which is "a necessary psychological function", the question of the existence of 'god' is one "the human intellect can never answer" (73). We see, then, that Adam is not oblivious to the existence of a collective unconscious shared by all human beings. Where he falls short is in his failure to recognise how anti-anthropocentric behaviours go against our human survival instinct, both within the constraints of a society in

which this behaviour is not the norm as well as within a post-apocalyptic setting whereby human beings are exposed to the harshness of the natural world.

Adam One uses religious doctrine as a kind of negative reinforcement to encourage certain behaviours. Like Jung and Atwood, Adam recognises the human inclination towards religion, thus he utilises this to direct peoples' actions. While his intentions are good it should be noted that in some ways Adam represents the hierarchical nature of religion in ordaining himself as spiritual leader of the Gardeners. While his reframing of religion is carried out in an attempt to harbour environmentally sound behaviour, he nonetheless manipulates the current conceptualisation of God in order to influence his followers. Science is again noted through the sect's canonisation of various secular contributors to the world of science and environmentalism such as James Lovelock, Rachel Carson, Diane Fossey and Stephen Jay Gould. By formulating religion as a moral guide towards environmentally friendly behaviours, Atwood not only introduces compassion into science, a component notably absent from *Oryx and Crake*, but she also highlights religion's responsibility towards the issue of climate change and the ways in which it can help to address these issues. While the surviving Gardeners are forced to abandon many of their anti-anthropocentric behaviours in the post-apocalyptic world in order to ensure their survival, it is nonetheless evident that many of the ecologically conscious teachings of the group supplement this survivalism. Through both the Crakers and the Gardeners, Atwood depicts the presence of religion alongside the enactment of environmentally sound behaviours as well as behaviours rooted in anthropocentric survivalism. Suchostawska explores Atwood's choice to merge religion and environmentalism saying,

> Introducing God into the story of environmental crisis in the blend helps to give it unity and adds a conscious agent (God) to a collection of various events (such as natural disasters and disease) which otherwise may seem unrelated. It also compresses and emphasizes the cause-effect relationship between harmful, selfish human actions and their future negative consequences, framing them as a form of penalty for evil deeds. (107)

What we notice here is that much like Crake's desire for human perfectibility, the God's Gardeners are largely driven by fear. While this fear is ultimately warranted as the Waterless Flood which the sect prophesised does occur, this underlying fear in many ways influences their ideologies and teachings. Furthermore, the fear that accompanies religion is utilised by Adam One in order to encourage the members not only to practice ecology in their faith, but also to learn the practices of survivalism in preparation for the prophesised Waterless Flood. Crake's fear is largely rooted in his personal unconscious as a result of his traumatic upbringing. The fear which drives the Gardener's appears to be rooted in their collective unconscious, as this fear drives their survivalism and ultimately ensures their survival after the apocalypse.
Many have labelled Atwood's 1985 text *The Handmaid's Tale* "anti-religion". In an interview with Anna Czarnik-Neimeyer Atwood responded to this with,

> Religion has been – as is in other parts of the world today – used as a hammer to whack people on the heads with. But it also has been – and is today – a sustaining set of beliefs and community that gets people through those things. (Atwood)

While her representation of religion in *The Handmaid's Tale* differs greatly from her depictions of religion in *The Year of the Flood*, I feel that this remark is nonetheless relevant as it speaks to her view of religion at large rather than in relation to one specific text. While Atwood explores the ways in which religion can be used as a form of unhealthy control or indoctrination, I would argue that her view of religion is similar to her view on other topics. She views religion in a non-binary way through her acknowledgement of both the ways in which it encourages or discourages certain behaviours, but also of the simultaneous support that it provides. Atwood is much more critical of religion in *The Handmaid's Tale* as she presents the reader with a Christian dystopian regime. While *The Year of the Flood* does not follow the same trajectory, Atwood does critique certain aspects of the sect – particularly their puritanical and oftentimes masochistic nature. With that being said, she does highlight how the God's Gardeners offer "a sustaining set of beliefs and community that gets people through those things". Ren provides a description of the low-waste lifestyle at Edencliff Rooftop:

> All of our dishes and pots and pans were salvaged…I slept on a futon stuffed with husks and straw…My clothes were always dank, because of the humidity and because the Gardeners didn't believe in dryers. (76-7)

The Gardeners persist in the belief that everything one needs is provided to them by God, "God made the sun for a reason" (77). While this low-waste, environmentally friendly way of living is certainly commendable, we observe how some of the Gardeners are nonetheless preoccupied by the desire to participate in the consumerist trends of the "External World" (71). Ren explains her desire to return to her comfortable Compound life and to indulge in the forbidden,

> I really wanted to go back there… I wanted my real house, with my own room and the bed with pink bed curtains and the closet full of different clothes in it… We were forbidden to make friends with the pleebrats…We gazed at that forbidden worldly life as if through a chain-link fence. Once I found a beautiful camera phone, lying on the sidewalk. It was muddy and the signal was dead, but I took it home anyway, and the Eves caught me with it. 'Don't you know any better?' they said. 'Such a thing can hurt you! It can burn your brain! Don't even look as it: if you can see it, it can see you.' (79-81)

Furthermore, we observe a degree of hypocrisy regarding the condemnation of technology as the Adams and Eves have a laptop:

> Toby had been shocked to discover this – wasn't such a device in direct contravention of Gardeners principles? – but Adam One had reassured her: they never went online with it except with extreme precaution, they used it mostly for the storage of crucial data pertaining to the External World, and they took care to conceal such a dangerous object from the Gardener membership at large – especially the children. (225)

Through this Atwood explores not only the difficulties experienced in rejecting commonplace practices, specifically when one is situated within a society whereby these practices are the norm, but also a skewed power structure within the sect. This quote supports my previous point of Adam being representative of the hierarchical issues around religion. We witness instances of

'self-policing' within the sect and how uniformity is encouraged because of paranoia. Because of this, members of the sect display judgmental, gossipy behaviour. An instance of this is evident when Ren shares a gossip story with Bernice (172) with the intention of being hurtful, resulting in a plethora of drama ensuing amongst the community. Through the God's Gardeners Atwood observes community dynamics which can then be compared to those observed in the Crakers. She explores how the Gardeners' attempts to abandon the problematic aspects of the human condition are unsuccessful and thus one can assume that Crake's attempt to edit this out of the Crakers will also be unsuccessful due to the irrepressible nature of the behaviours rooted in the collective unconscious of human beings. Adam One explores how the Gardeners are susceptible to feelings of greed saying, "Money is a terrible temptation. . . It is a sickness" (182). The avoidance of niceties and worldly pleasures does not automatically qualify one as a good person. In fact, Atwood explores how this can leave room for judgement and feelings of elation, but also feelings of jealousy:

> As for saving the world, nobody wanted to save the world as much as she did [Gardener member, Lucerne], but no matter how much the Gardeners deprived themselves of proper food and clothing and even proper showers, for heaven's sake, and felt more high and mighty and virtuous than everyone else, it wouldn't really change anything. They were just like those people who used to whip themselves during the Middle Ages — those flagrants. (136)

The above quote is another example of Atwood's clever use of humour in her critique of extreme behaviours. Lucerne, once an overindulged Compound wife, uses the word "flagrant" instead of "flagellant" to compare the God's Gardeners to the masochistic medieval flagellant sects. This malapropism is certainly a jab at Lucerne's character, as her choice to be a Gardener is largely to do with her extramarital affair with Zeb. However, the misuse of this word also acts as a descriptor of the flagellant-like behaviours of the Gardeners which are in some regards, ironically, morally wrong. This highlights the ways in which some of the actions of the Gardeners conflict with their unwritten manifesto to treat all creatures with love and care. In the previous chapter, I mentioned that *The Handmaid's Tale* is set in America as this setting supplements the narrative of the story based on the Puritan history of the country (Howells 93).

Atwood expands on this, explaining that the "foundation of the 17th-century Puritan roots… have always lain beneath the modern-day America we thought we knew" (qtd. Bosman 3). *The Year of the Flood*, although not as explicitly as *The Handmaid's Tale*, also explores the Puritan history of America and how remnants of these values are and may be evident in contemporary and future societies. As such, Atwood comments on the limitations of religion such as the practices of misogyny and patriarchy (Bosman 3) seen through the uniformity of the Gardener women and the male leadership of the group seen in the skewed power represented by Adam One. This highlights how flawed, bygone values can easily seep into the new, thus corrupting reformed values. Atwood's choice to depict how these historical puritan ideas and practices have informed some of the ideas and practices of the God's Gardeners foreshadows the resurfacing of historical human practices and values amongst the Crakers in the post-apocalyptic world. Through this Atwood reiterates the importance of considering human psychology not in an attempt to eradicate these aspects from the human condition, as she suggests this is not possible, rather in an attempt to direct these inclinations in a more beneficial direction.

Toby's awareness of and scepticism towards the problematic behaviours displayed by the Gardeners is promising in that her storytelling largely influences the religious direction that the Crakers take. While she maintains some core Gardener theology, such as respect for the environment and other animals, she explains that the safety of the group comes first. In *MaddAddam* she dismantles the anti-anthropocentrism of the Gardeners in suggesting that taking another animals' life is okay if it ensures one's own survival,

> Zeb felt sorry for the bear. He didn't want to hurt it. But he didn't want to be eaten by it. You don't want to be eaten by a bear, do you? Neither do I… Anyway, if Zeb didn't eat the bear he would have died, and then he wouldn't be here with us right now. (69)

This amounts to the reiteration of Atwood's survivalist anthropocentrism. While Atwood draws our attention to the practical functions of religion, suggesting its necessity not only for the benefit of ecology, but also because it forms an integral part of the human condition, she does not hesitate to highlight the problematic aspects of religion as it exists pre-The Waterless Flood in order to situate religion within the posthuman world.

Beyond the use of oppressive tactics, such as the evocation of fear and guilt, particularly aimed at the younger members of the sect to prevent participation in acts deemed sacrilegious, the Gardeners are also economical with the truth. While I have explained previously that Toby's involvement in the formation of the Crakers' religious beliefs is beneficial in that she diverges from some of the problematic ideologies preached amongst the Gardeners, she too is economical with the truth. Adam One addresses his dishonesty with Toby by saying, "I apologise for my excursion into fiction. I must sometimes say things that are not transparently honest. But it's for the greater good" (219). Here Atwood highlights issues of dogma and doctrine within religion as well as Adam One's misuse of his authority. This points to yet another critique of the Gardeners which essentially amounts to a critique of cult mentality and sustained hierarchy:

> Adam One insisted that all Gardeners were equal on the spiritual level, but the same did not hold true for the material one: the Adams and Eves ranked higher, though their numbers indicated their areas of expertise rather than their order of importance. In many ways it was like a monastery, she thought. The inner chapter, then the lay brothers. And the lay sisters, of course. (55)

Toby's own deviations from the truth point to an aspect of the human condition which Atwood foregrounds: mythology. Both Toby and Adam One's "excursion into fiction" can be viewed as problematic in that this can easily spiral into indoctrination, however, it is evident that this myth-making is yet another irrepressible aspect of the human condition. It is a tool developed by human beings in order to makes sense of the world and their place within it (Savkay 244). Atwood suggests that her posthuman vision is cognisant of the collective unconscious, which is essentially guided by mythology. Jung explains that our personal unconscious consists of images which we have experienced, while the images of the collective unconscious lack this detail "since they have not been experienced individually" (92). We draw on representations to bridge these gaps, resulting in the formation of myths and religion. Atwood again looks to the work of Northop Frye in this regard,

> Frye was concerned mostly with literary criticism, and myths interested him as structural elements in works of literature. He used the word myth to mean story, without attaching

> any connotation of truth or falsehood to it; but a myth is a story of a certain kind. The myths of a culture are those stories it takes seriously — the ones that are thought to be key to its identity. (86)

Toby exposes the problematic aspects of the God's Gardeners. Despite her scepticism, she remains a part of the sect which might lead one to believe that she values the sense of community. Thus, it is through the character of Toby that Atwood furthers her argument regarding the sense of support that religion gives people. Toby continues with many Gardener rituals even after the Waterless Flood. In fact, we see how the enactment of these rituals in many ways keeps Toby's mental well-being intact despite her being isolated in a deserted spa. Thus, even though some of the ideologies of the sect are anti-anthropocentric in nature, which in turn materialise as masochism and self-abnegation, the God's Gardeners teach their members skills which align with Atwood's survivalism. This is taught alongside their ecologically based religious doctrine. This points to Atwood's own views on the blending of religion and ecology in order to forge more consistent and ritual-like environmentally sustainable living (Suchostawska 98). Atwood's balanced writing allows for her to recognise the difficulty in trying to forge a life of environmentally sound behaviour without slipping into anti-anthropocentric views and behaviours. Toby explains how she can cope with the hallucinations caused by prolonged isolation as she "trained for them during the God's Gardeners Vigils and Retreats" (17). Her survival is aided by the practices once carried out on the roof top garden such as the collection of grey water to flush her toilet, and the collection of rainwater for drinking (20). She keeps track of the days through remembering the Feast Days of the Gardeners. Through this Atwood further highlights the benefits of religion in suggesting that it provides a time structure for human lives. While the God's Gardeners in many ways highlight the problems with a total abandonment of anthropocentrism, we see aspects of survivalist anthropocentrism in their teachings as Toby recalls the Gardener chant, "*An Ararat without a wall isn't an Ararat at all. . . A wall that cannot be defended is no sooner built than ended*" (23). The Gardeners' actions are carried out with the group's survival in mind. Certain actions such as the consumption of meat are permitted when it ensures the survival of human beings. They anticipate the eventual extinction of humanity as a result of "overpopulation and wickedness" (56), reasons which once more highlight both the scientific and religious narrative of the sect. They exempt themselves from this impending end

through their practice of survivalist anthropocentrism. Despite the sect's teachings on the equal treatment of all creatures, we see that they prioritise the survival of their community, an instinctive desire which should not be abandoned. This approach, which Atwood suggests as desirable in a shift towards a posthuman era, although beneficial in its promotion of behaviours which cause the least suffering for all involved, would require a dramatic shift in the worldview of the population at large. This shift is in many ways made easier for Toby as she is extracted from the "Exfernal World" and placed within a setting whereby this way of thinking is encouraged and widely practiced; however, a mass scale shift would require people to essentially give up the advantages and pleasures which massification provides. Furthermore, we observe how the enactment of this lifestyle within a society which closely resembles our contemporary society can easily deviate into masochistic and judgemental behaviours.

While the God's Gardeners are certainly problematic in their masochistic behaviours, puritanical values and hypocrisies, Atwood's critique of religion is more overt through other religious groups introduced in the text. We are made aware of "rich-people religions" (47) such as The Known Fruits and Petrobaptists: the latter is explored in greater detail in the final text of the trilogy. Mention is also made of "fringe cults" such as Pure-Heart Brethren Sufis, Ancients of Days, Hare Krishnas, Lion Isaiahists and Wolf Isaiahists (47). Later in the text we discover that the Lion Isaiahists commissioned the creation of liobams, a portmanteau of lion and lamb, dangerous genetically engineered creatures which now roam freely in the post-apocalyptic world. Based on this it is evident that this sect divagates from religious dogma in their advocation of scientists playing God, "in order to force the advent of the Peaceable Kingdom" (112). Because of the largely ambiguous nature of the God's Gardeners, Atwood is able to comment on cult mentality and the problematic aspects of religion such as indoctrination, self-abnegation and the formation of hierarchies, rather than appear to be making a critique of a specific religion. In fact, she includes aspects of Eastern traditions and religions in the practices of the God's Gardeners, most specifically regarding the sect's eco-consciousness. The Gardeners' ability to see value in everything closely resembles the Japanese practice of kintsugi which involves the repair of broken pottery with gold. The sect also appears to adopt the Taoist principle of yin and yang, which exposes interconnectedness and balance in nature. In fact, the first two books of the trilogy mirror this principle as *Oryx and Crake* embodies male energy while *The Year of the*

Flood embodies the yin aspects of femininity and the Earth. Atwood inverts our hierarchical view of religion through earthing conventional religion. She suggests that instead of looking upwards in our quest to know, we should instead look to the Earth and respect God's creations. Furthermore, Atwood's criticisms of the sect in no way overshadow the positive aspects of the God's Gardeners, which she draws our attention to. Their compassion and respect for nature is admirable. This compassion largely stems from an awareness of the mutual interdependence that exists between all creatures. Rather than commodifying people as observed in *Oryx and Crake*, the sect utilises each person in their community based on a recognition of their individual talents. While their sustainable way of life is not without its problems, it is nonetheless a functional way of life. Many of the Gardeners are able to navigate and survive the Waterless Flood because of the skills acquired during their time at the rooftop garden. For example, when Toby stumbles across a hole dug next to a river, a skill she remembers from her days as a Gardener, she exclaims "Gardeners. . . or someone smart" (449). Through this, we see how the context of the posthuman era judges the Gardeners in a more positive light when compared to the setting of the world pre-apocalypse, as judgement now stems from nature rather than from anthropocentric projections.

Beyond their rejection of anthropocentrism and their adherence to an environmentally sustainable way of life, the rituals carried out by the sect appear meaningful. We learn of their consideration for mental health through allowing members to be in a "Fallow state" (97):

> The Gardeners believed that people who acted like Veena were in a Fallow state – resting, retreating into themselves to gain Spiritual insight, gathering their energy for the moment when they would burst out again like buds in spring. They only appeared to be doing nothing. (96-7)

The group's approach to marriage captures a truer essence of a union between two people than a conventional contemporary marriage as the process is not bureaucratic in nature,

> That was because the Gardeners didn't bother with marriage certificates. They endorsed fidelity as long as a pair-bonding was current but there was no record of the first Adam

> and the first Eve going through a wedding, so in their eyes neither the clergymen of other religions nor any secular official had the power to marry people… Among the Gardeners, weddings were simple affairs. Both parties had to proclaim in front of witnesses that they loved each other. They exchanged green leaves to symbolize growth and fertility and jumped over a bonfire to symbolize the energy of the universe, then declared themselves married. (137-8)

Separation in the community involves the above ritual being carried out in reverse, involving no debts through divorce. Through this, Atwood highlights how the sect not only prepares for and glamourises a return to the pastoral, but also how they encourage a regression in family and relationship systems. As such, they do not view marriage (or divorce) as the business of the state or even the church, but rather as a promise between two individuals based purely on human emotion, as opposed to contractual agreements. This view of marriage in some ways mirrors the relationship system of the Crakers seen in *Oryx and Crake*: "In fact, there would never be anything for these people to inherit, there would be no family trees, no marriages, and no divorces" (305). Thus, just as Atwood highlights the essence of religion before it became a bureaucracy, she draws our attention to the essence of marriage before that too became bureaucratic. Through this, she again draws parallels between the thinking of the God's Gardeners and the nature of the posthuman Crakers. While the Crakers have been genetically engineered to be a specific way, we see that the Gardeners conduct themselves in a similar way to these enhanced beings. As such, Atwood suggests that the betterment of humanity is not only possible through scientific intervention but also through changed behaviours. Where this becomes challenging is in trying to navigate environmentalism without lapsing into anti-anthropocentric behaviours which then give rise to the aforementioned issues of masochism and self-abnegation. Furthermore, based on Jung's theory of the human inclination toward religion, Atwood suggests that the most effective way to implement a widespread adoption of environmentalism is through eco-religion. This presents its own obstacles as Atwood maintains that while this is an effective approach, it too can give rise to issues such as cult mentality, indoctrination and hierarchy formation. Despite the imperfections observed in the Gardeners, it is possible to assume that Crake drew some inspiration for his "perfect" posthuman creation from the God's Gardeners as we know that he worked closely with Gardener member Pilar.

Furthermore, like the Gardeners, the Crakers are exceptionally environmentally friendly beings who live in unison with other creatures and their environment, thus we see the human within the posthuman (Pordzik 158). These similarities are Atwood's suggestion that we do not need to rely on the intervention of science to create a posthuman future in which human beings cease to participate in ecologically destructive behaviours. Unlike the education system observed in *Oryx and Crake*, the schooling provided to the Gardener children is based on life-skills and encouraging an appreciation for nature:

> Our Young Bioneer work was supposed to teach us some useful lessons. For instance: Nothing should be carelessly thrown away, not even wine from sinful places. There was no such thing as garbage, trash, or dirt, only matter that hadn't been put to a proper use. And, most importantly, everyone, including children, had to contribute to the life of the community. (83)

Atwood's choice to introduce religion into the scope of a largely techno-scientific world suggests that this is a necessary or even unavoidable element which needs to be considered in a world moving towards a posthuman era. This is explicitly clear in the Crakers' pleading for the story of their creation to be repeated to them each evening. We can relate to their search for meaning and solace, as we too require narrative. It is these stories and the creation of a new religion which essentially shrinks the chasm between the posthuman and the human as these stories make the posthuman Crakers more human as the collective unconscious shared by both groups comes to light.

Unlike most apocalyptic and post-apocalyptic fiction, Atwood tells a story of hope, and she explores the ways in which religious faith inspires this hope. In an interview with Layton Williams Atwood remarks, "So faith is a force for good particularly when people are feeling beleaguered and in need of hope". We see this particularly through the character of Toby. Despite her scepticism towards some of the Gardener beliefs and practices, it appears that post the Waterless Flood Toby depends on her spiritual survival to aid her physical survival (Collier 42). When Toby is asked to become Eve Six, she explains, "I'd be honoured…But I can't accept…it would be hypocritical" (200). This is as a result of her reluctance to fully accept all

Gardener ideologies. As previously explored, she observes issues with the sect such as its hierarchical nature and their distortion of the truth. To this Adam One responds,

> "In some religions, faith precedes action," said Adam One. "In ours, action precedes faith. You've been acting as if you believe, dear Toby. *As if* - those words are very important to us. Continue to live according to them, and belief will follow in time." . . . "We should not expect too much from faith," he said. "Human understanding is fallible, and we see through a glass, darkly. Any religion is a shadow of God. But the shadows of God are not God." (203)

Through Adam One's words Atwood points to human fallibility in faith and thus in environmentalism and non-anthropocentrism, however, she does not describe this fallibility as a justification for abandoning efforts towards behaviours aligned with these two things. This essentially stands as Atwood's support of the enactment of survivalist anthropocentrism. After Toby's Vigil, whereby she asks for strength to assume duties as Eve Six, she hallucinates and sees an animal – the description of which fits that of the genetically spliced liobam (204). This vision in itself attests to Toby's dual perspective with regard to the religion. An example of this internal battle is evident when Toby considers the killing of a liobam "sacrilege" (420), however this thought is promptly followed with, "Think clearly. . . since when are you a fanatical Peaceable Kingdom Isaiahist?" (420). When Toby and Ren reconnect, Toby briefly contemplates giving Ren a dose of a deadly mushroom to put her out of her misery, however, she does not as she thinks of what the Gardeners would say, "Ren is a precious gift that has been given to Toby so that Toby may demonstrate unselfishness and sharing and those higher qualities the Gardeners had been so eager to bring out in her" (428). The Gardeners have clearly been successful as Toby nurses Ren back to health. Despite not seeing the situation quite in the way the Gardeners might have, we read that Toby will keep on trying to see things as they (the Gardeners) might (428). Whilst highlighting the problematic mindsets that are often coupled with religion, Atwood suggests not only that we are hard-wired for religion, but that it ultimately supports our survival (Bowen 696). This is most easily observed by drawing parallels between Toby and Jimmy as they exist in the world post the Waterless Flood. This comparison begins with the opening lines of *Oryx and Crake* and *The Year of the Flood.* Both begin with a third person account of a

character's morning in the same post-apocalyptic world. Toby and Snowman can easily be compared as two very different but possible outcomes of a posthuman shift characterised by a repression or recognition of psychology. As I have explained in the previous chapter, Snowman's transition from Jimmy to Snowman is in many ways a regression in that, alongside the Crakers, Snowman becomes the other.

> Snowman wakes before dawn. He lies unmoving, listening to the tide coming in, wave after wave sloshing the various barricades, wish-wash, wish-wash, the rhythm of heartbeat. He would so like to believe he is still asleep. (3)

Snowman is one of the few survivors that were not either Gardeners or Maddaddamites pre-The Waterless Flood. His life in the post-apocalyptic world appears a lot more challenging when compared to that of Toby. While the Gardeners have always existed in unison with nature, Jimmy has lived an exceptionally privileged life making this adjustment difficult for him. Furthermore, Toby has lived out her childhood within the pleeblands where her enactments of survivalism began, while Jimmy has lived in the comfortable Compounds. The above extract shows how Snowman struggles to face each day though rather wishing to sleep. While Atwood highlights the difficulties in replacing anthropocentric thought with survivalist anthropocentrism through the character of Jimmy, through the character of Toby she suggests that despite the challenges of altering one's worldview, it is not entirely impossible. Toby's character transition is more complicated than that of Jimmy. While he goes from Jimmy to Snowman, she goes from Toby the 'normal' citizen, to Eve Six, to Tobiatha and finally back to Toby. Her character embodies a holistic expression of the challenges and stages in a shift to a posthuman era. Toby's morning, although set in the same world, is notably different:

> In the early morning Toby climbs up to the rooftop to watch the sunrise. She uses a mop handle for balance: the elevator stopped working some time ago and the back stairs are slick with damp, and if she slips and topples there won't be anyone to pick her up. (3)

As explained above, from the very beginning of their lives Toby and Jimmy have lived in vastly different realities. Post the Waterless Flood, the hierarchical structure of the world topples,

leaving both characters in the same situation. Despite this, Snowman lives a feral life on the beach, while Toby turns an old AnooYoo Spa into her shelter. Their chosen living environments are further distinguished as Snowman hears the "shrieks of the birds" and the movement of rubbish "against the ersatz riffs of rusted car parts and jumbled bricks and assorted rubble almost sound like holiday traffic" (3). Toby, on the other hand, hears the "Birds chirp…there's no longer any sound of traffic to drown them out" (3). Snowman appears to be affected by his isolated state, often speaking out loud or to the creatures around him. Toby, however, "has never been under the illusion that she can converse with birds" (3). Posthumanist theory calls for an abandonment of anthropocentric thought in order to progress into a posthuman era whereby we are no longer burdened by harmful beliefs of human exceptionalism. While in theory this abandonment seems beneficial, Toby's character depicts how a degree of anthropocentrism rooted in survival instinct is necessary and a total abandonment of this worldview can manifest as masochistic, self-destructive behaviour. We witness Toby's survival instincts coming into play as she shoots a pigoon to prevent the creature from destroying her garden which is her "long-term food supply" (22). Even though she decides to put her own livelihood before that of the pigoon, Toby's actions are not senseless,

> Toby's hands are shaking. You've snuffed a life, she tells herself. You've acted rashly and from anger. You ought to feel guilty…She murmurs the standard Gardener words of apology, though she doesn't feel apologetic. Or not apologetic enough. (22)

Despite her decision to take a life, we see how Gardener values have been ingrained into Toby. Through this event we see that Toby's faith as well as her survival instinct keep her alive. It should be noted that Toby's survival instincts are not solely owed to joining the Gardeners, nor were they owed to her father teaching her to use a gun when she was twelve (29). According to Jung's theory the human inclination towards survival is something that is present within each of us, not through education but through years of evolution. During his sermon on Predator Day, Adam One alludes to this survival instinct saying, "We would not be Human if we did not prefer to be the devourers rather than the devoured" (416). The Gardener children are taught how to hunt and kill an animal in case they are ever in a situation where this is the only sustenance available. Most of the children are disgusted by the demonstration given by Zeb (168), however

by the end of the text Toby serves the remaining Gardeners soup made from animal bones. Toby displays anthropocentric behaviour rooted in survivalism; however, she still speaks words of apology to the animal (513). While Atwood is critical of the anti-anthropocentric practices of the Gardeners, she simultaneously shows the ways in which the sect instils compassion in its members. In the same way that purchasing the products marketed by mass society makes our survival easier as we do not need to brave the natural world to hunt or forage for food and shelter, so Toby's choice to shoot and kill the pigoon aids in her survival. What Atwood wishes to draw our attention to is Toby's recognition of her actions. Thus, Atwood calls us to recognise how the way in which we live our life within a hyper-consumerist society negatively affects the natural world. This recognition is not to prompt us to abandon all practices which make our lives easier, but rather to consider how one might function within this society in a more environmentally sustainable way. Atwood suggests that eco-religion can instil in us a degree of compassion without us having to enact anti-anthropocentrism in order to live an environmentally sustainable life. It is in many ways Toby's faith that keeps her alive; later in the text it is the sense of community which religion offers that aids in her survival. This sense of community goes further than just humans living in communion but extends into a symbiotic relationship with all of nature. Jimmy's survival appears much more difficult when compared to Toby's. Jimmy feels less isolated because of his deification of Oryx, as throughout the text we see that he imagines hearing her voice, furthermore he interacts with the Crakers as a result of the deification of both Oryx and Crake, again pointing to our inclination towards religion. However, the fact that Jimmy does not belong to a community reiterates the problem with a complete abandonment of anthropocentrism. Hoogheem explores how Jimmy lacks a sense of community not only because the beings he is surrounded by (Crakers) are fundamentally different from himself, but also because he is not "an integral member of a cosmos in which he can live in harmony" (65). His circumstances in many ways make it difficult for him to hold an anthropocentric worldview, even one rooted in survival. This again points to Jung's claim that aspects of the collective unconscious need "only certain conditions in order to reappear" (71), conditions absent in Snowman's case due to his isolation from other human beings.

By the end of the novel Toby assumes the role of spiritual leader, a role which continues into the final text of the trilogy as Toby constructs the bible-like stories told to the Crakers. Once again

Toby is the character who is depicted as striking a balance between self-sacrifice and self-interest (Hoogheem 57). Toby's presence in the final text of the trilogy, *MaddAddam,* allows for Atwood's balanced posthuman vision to take shape. Toby represents one half of Atwood's vision in her ability to move away from harmful anthropocentric beliefs rooted in the notion of the human without abandoning these beliefs to a point which would impede her own survival. Despite Crake's ignorance of human psychology when creating the Crakers, Toby is able to supplement the Crakers' posthuman worldview through the use of religion, ultimately acknowledging the inclination towards symbolism and mythology that exists within these beings and humans alike. In doing so Toby is able to endorse a survivalist anthropocentrism within these posthuman beings by encouraging their existing eco-friendly nature, but also by making them aware of ensuring their own survival. While Atwood's post-anthropocentrism rooted in survivalism is encumbered by limitations such as the difficulty of enacting this kind of lifestyle within the setting of a hyper-consumerist, massified society, it is nonetheless a positive shift away from a posthuman era which ignores human psychology by focusing solely on the possibilities of science. Winterson explores this in relation to the Gardeners explaining that they aren't "the 'answer', but at least they've asked enough questions to avoid a life of endless shopping and face-lifts" (qtd. Bowen 695). Bowen explores the sect further saying that,

> Her creation of the God's Gardeners comes from her deep-seated belief that we are 'hard-wired' for religion and that… we had better choose a good one if we're going to make a difference. By the end of the third volume of the trilogy, the survivors of the 'waterless flood' number not only the gentle bioengineered 'Crakers,' … but also a small group of ex-Gardeners who, though disillusioned about the simplistic idealism and the undercover politics of their original God's Gardeners commune, nevertheless re-emerge not only to live communally but also to sow the seeds for the future. (695)

This "hard-wired" inclination towards religion that Bowen speaks of refers back to the aforementioned theory of Jung which Atwood draws on in her explorations of a posthuman era which considers psychology. The major critique of Jung's theory of the collective unconscious is that it lacks scientific evidence. In displaying this re-emergence as being guided by mythology

and religion Atwood highlights the mystical aspects of the collective unconscious which transcend scientific understanding.

Chapter Four: *MaddAddam*

The final text of Atwood's ten-year project, after which the entire trilogy is named, was published in 2013. *MaddAddam* begins with a recap of the first two novels. Thereafter Atwood continues with her time-shifting narrative structure, with many familiar characters from the previous two novels present in the text.

The narrative of *MaddAddam* is split into folkloric stories told by Toby to the Crakers, as well as third person accounts of Toby's interactions with ex-Gardener and MaddAddam leader Zeb. From the onset of this text we are made aware of the presence of mythology in Atwood's posthuman era. In the setting of a post-apocalyptic world Atwood includes mythology, an aspect which is considered irrelevant at least through a scientific lens, through this she shows us is that this often-ignored aspect is actually central to any space in which the human or posthuman is present. This novel clearly depicts the aforementioned influence of Frye's explorations in Atwood's work. Through the folkloric stories told by Toby we observe what Frye terms "myth", but through the character of Toby and Zeb we observe the literary design of romance (Frye 136-7). The plot of *MaddAddam* largely revolves around the day-to-day challenges of the surviving God's Gardeners, members of Zeb's MaddAddam group and finally the Crakers. It is in this text that Atwood's proposed survivalist anthropocentrism is clearly enacted. The flashbacks written into this narrative tell of Zeb's life, his relationship with his brother, Adam One and the workings of the MaddAddamites. While *The Year of the Flood* explores the God's Gardeners at length, this text explores the MaddAddamites, a group with similar goals to the pacifist God's Gardeners, but who employ a more militant approach in their resistance to corporate powers (Howells 84). These two groups run by brothers Zeb and Adam in many ways mimic the nature of their leaders. As such it is possible to gain a better insight into each movement by closely exploring the character development of both Zeb and Adam. What I would like to raise now that the context and storyline of all three novels has been provided is the knee-jerk reactions to human issues that we witness across all three texts. In the first text, Crake responds to the ecological damage caused by human actions by wiping out most of the human race and creating a posthuman replacement. The God's Gardeners respond to this same issue through the extreme rejection of the commonplace practices of this society. Lastly, we see how the MaddAddamites

take on a militant approach to this issue through bio-resistance. Through this Atwood points to the issue of extremism of all kinds, again proposing an approach to human issues which considers the psychology of the being central to these issues. A failure to consider both the personal and the collective unconscious would result in the influence of personal traumas on a global level (as observed through Crake), the unconsidered re-emergence of human traits within posthuman beings (as seen through the Crakers), and finally the suppression of our inclination towards survivalist anthropocentrism (seen through the Gardeners). *MaddAddam* once again observes Atwood's scepticism of anthropocentrism, as well as her explorations of the limitations of science in the shift to a posthuman era. These aspects are explored through the drastically reduced human population within the natural world as well as through Atwood's focus on the aspects of human psychology largely ignored by science depicted throughout the trilogy. By bringing members of the God's Gardeners, MaddAddamites and the Crakers to live in unison Atwood offers up a version of a posthuman era not characterised by science alone. Instead, we observe the ways in which scientific and religious thought interact through the human survivors. We also observe the power of the psychological, a major oversight on the part of Crake, as the Crakers not only search for answers but are also influenced by their human companions.

Before continuing my exploration of this final text, I would like to explore the reception that the complete trilogy received. The aspect of this trilogy which I found endearing is the very aspect for which the text receives most of its criticisms. Hannes Bergthaller describes the ending of *The Year of the Flood* as "bitter-sweet, almost fairytale-like" (741). Debrah Raschke describes the ending of this final text as a more "emphatic" version of this "it will be fine tomorrow" trajectory. A review by Theo Tate for *The Guardian* questions the originality of the plot. While the story of a mad scientist or a genetically modified race is not original in any way, I would argue that Atwood's writing style breathes new life into this "seen before" plot. Tate goes on to compare the text to McCarthy's *The Road* as well as Atwood's own *The Handmaid's Tale;* while both are model pieces from the genre of dystopian or science fiction, they exemplify precisely what is expected from this genre. The *MaddAddam* trilogy however diverges from the expected in its humour and echoes of hope. Tate explains that despite his criticisms of the text's 'unoriginal' explorations, "Tonally. . . *MaddAddam* is wildly varied, and there's a lot of strange comedy too". In exploring the subgenre of Biopunk Lars Schmeink makes mention of Atwood's

work. The *MaddAddam* trilogy is a relevant example of this sub-genre in its explorations of a future world "that build[s] upon current tendencies of an extreme consumer society and the sea of change of human impact on *zoe*, bare life, in the Anthropocene" (15). However, there are other texts such as Paolo Bacigalupi's *The Windup Girl,* which make similar explorations. Yet Atwood's text is unique, not only in its use of humour where one might not expect it, but also in its "it will be fine tomorrow" sentiment. While Crake's character is Atwood's unique reimagining of the mad scientist caricature, it is the God's Gardeners as well as this final text which allow for this trilogy to be characterised as belonging to the speculative fiction subgenre of hopepunk. Hopepunk is defined as works of art which show "optimism, gentleness, kindness, and collaboration" (Romano) amongst some of the characters. The God's Gardeners in many ways represent the "radical kindness" which typifies this subgenre; however, it is this final text which embodies the rejection of the typically sombre or grim nature of works of fiction which deal with the themes presented throughout the trilogy. This again takes us back to Atwood's "ustopia" as she draws our attention to the utopia which exists within every dystopia and suggests that hope can be present even in characteristically dismal situations. Andrew Sean Greer describes *MaddAddam* as ingenious as it "lights a fire from the fears of our age, then douses it with hope for the planet's survival" (qtd Harland 591). I believe that Atwood's choice to frame the text in a hopeful way aligns with her personal beliefs on this issue. While she is certainly critical of the way in which human beings conduct themselves within the natural world, she sees this behaviour as correctable. Thus, her text encourages reform as opposed to suggesting that we are doomed with or without these changes. This reform takes the shape of a survivalist anthropocentrism which is cognisant of the elements of our human condition that exist within our collective unconscious, paired with an ecologically based religion formed out of our inclination towards religion.

The name MaddAddam comes from a game called Extinctathon which was initially introduced in the first book of the trilogy. The game is monitored by MaddAddam and upon opening, the player is posed with a question, "*Adam named the living animals, MaddAddam names the dead ones. Do you want to play?*" (237). The actual game revolves around trivia questions about extinct animals, "It seemed to be a variant of Animal, Vegetable, Mineral. Using obscure clues provided by your opponent, you have to guess the identities of various extirpated beetles, fish,

plants, skinks, and so forth" (237). However, using their codenames, the MaddAddamites enter the game and use it as a platform to communicate without being tracked by the CorpsSeCorps. This quotation indicates the "near future" aspect of the text, as we currently live in a time where our devices are constantly listening to us. Atwood takes this phenomenon a step further in depicting a future whereby this listening is not carried out with the intention of targeted advertising or virtual assistance, but is instead used as a means of control. Resistance groups are unable to communicate freely without fear of being traced and ultimately killed, as seen in the case of Jimmy's mother and Crake's father. We later learn that gardener member Pilar, as well as Crake, were both a part of MaddAddam. This group carried out acts of bio-resistance against the neoliberal corporates such as the creation of "asphalt-eating microbes [and the] outbreak of neon-coloured herpes simplex…the ChickieNob wasps and so on" (298). However, the members of this resistance group ultimately end up being the "brain slaves" (56) who work for Crake on his Paradice Project, each responsible for the curation of a specific aspect of the Crakers' genetic makeup. We recognise many of the names that appear in this final text from the chapter entitled 'MaddAddam' in *Oryx and Crake* where Crake explains that the people working on his project are in fact all Grandmasters of the game Extinctathon. In Greek mythology we read of gods mingling with humans. To a degree the MaddAddamites are god-like in that they are responsible for the creation of the Crakers. The interactions between the members of this group and the Crakers is symbolic of the regression to ancient mythology and storytelling. Through this Atwood advances her argument that the humanities are not irrelevant to the apocalypse. Atwood's insistence on the importance of considering human psychology in a posthuman shift is not simply her forcing her humanist agenda on the reader. Rather she shows us the relevance of the humanities in this scope and the consequences of ignoring this fundamental aspect.

The first two texts present the reader with distinct binaries making them comparable. *Oryx and Crake* explores the shortcomings of science rooted in hubris, ultimately critiquing the anthropocentric tendencies of human society. *The Year of the Flood* looks at the importance of considering human psychology, while exposing the limitations of a complete abandonment of anthropocentrism, specifically as it is rooted in survival. *MaddAddam,* on the other hand, veers away from these clear-cut dichotomies. Instead, this final text presents the reader with a posthuman world in which characters from each of the previous texts appear side by side in a geographical setting which does not favour male over female, rich over poor, or human over

nonhuman. Even though the society presented to us in the first two texts is set in the near future, Atwood's extrapolative writing skills allow for us to recognise our own society within her constructed one. We see this through the aforementioned company names which echo those of real-life brands. Furthermore, the gender and socio-economic binaries presented in the first two texts are not dissimilar to these same binaries present in contemporary society. Finally, Atwood has stated that the science within her trilogy is based on existing science and is not a product of her imagination. This final text, however, presents us with a world unlike our own in that the human population has almost been wiped out. As such, Atwood poses questions and points for consideration regarding the future, particularly the ways in which humans might navigate the post-Anthropocene. By presenting us with a world within which the human population has been radically reduced, Atwood explores the posthuman era as both an era in which the human has been decentralised, and as an era in which humans and posthumans (in the form of the Crakers) navigate the post-apocalyptic world in alliance. By bringing together the voices of science, radical environmentalism and the products of evolutionary intervention, Atwood once again points to the importance of a holistic posthuman shift. She suggests while that which makes us human cannot simply be erased through evolutionary interference, the notion of the human is mutable when the hierarchical structure on which anthropocentrism is sustained is disrupted. This is not to suggest that a bioengineered apocalypse is the only way forward for humanity, but rather that a positive posthuman shift would be marked by community with all life forms (Bugajska 3). This enmeshment does not amount to a complete abandonment of anthropocentrism – as survival is necessary – rather, it amounts to an expansion of the notion of the human to include transcorporeal community with all beings.

Chien-Hung Chen explores the end of the Anthropocene in the *MaddAddam* trilogy by describing Atwood's exploration of the posthuman as a product of choice, a product of science and a product of the post-Anthropocene milieu (194). The God's Gardeners in many ways represent the first in their attempt to undermine the society in which they live by choosing to live a life which does not perpetuate the harmful, anthropocentric ideologies on which the human has previously been established. The Crakers represent the posthuman as a product of science, as they subvert the notion of the human by going beyond the human in their biology, but they are equally posthuman in their regression to human ways, as they reformulate the ontological space

in which the human has previously been established. Finally, the survivors collectively represent the posthuman as a product of the post-Anthropocene milieu as their humanness is unsettled by the post-apocalyptic environment in which they find themselves, whereby the hierarchy on which the human previously rested has been dismantled. As explored in the previous chapter, Atwood exposes the limitations and even the impossibility of a complete abandonment of this worldview. Instead, she proposes a posthumanism which abandons the harmful anthropocentric thoughts of speciesism and human chauvinism, while maintaining a survivalist anthropocentrism which is inextricably present in the collective unconscious of all human beings. She retains a version of humanism which emphasises human agency through human creativity such as storytelling and mythology while subverting the humanist belief of science as the pinnacle of reason. Atwood's posthuman vision is balanced in its acceptance of the human condition while exploring the ways in which human beings can choose to live in harmony with nature without compromising their own survival and needs. Furthermore, she explores how the humanist notion of science as reason, a core belief of transhumanism, is limiting in its failure to acknowledge psychology in a posthuman shift.

Throughout the trilogy, Atwood shows us the ways in which the actions of human beings are the driving force behind environmental destruction and that without human beings present the natural world could flourish. In the "Exfernal World", there is little evidence of the natural present in the pleeblands or the Compounds, however, post the Waterless Flood we observe how the human survivors become immersed in the natural world and how they avoid areas where there is still infrastructure as nature has weakened the integrity of the man-made,

> The morning light is filtering through the piece of cloth that's been hung over the window in a futile attempt to keep out the mosquitoes… [The cobb house is] away from the urban rubble – the deserted streets and random electrical fires and buried rivers that are welling up now that the pumps have failed. No collapsing buildings can fall down on it, and as it's only one storey high, it's unlikely to fall down on itself. (36)

The above quotation explores the fall of the man-made world as nature reclaims these spaces. Here the "Fall of Man" narrative is subverted in that the human survivors are forced out of the

Exfernal world, into a natural space much like that of Eden. Through this subversion Atwood again points not only to the re-emergence of religious symbolism, but to a life characterised by survivalism, both for humans and the natural world. Later, we observe the survivors' attempts to create a liveable space for themselves. Their way of life and settlement in many ways mirrors the Neolithic Age as the survivors choose a place to settle and begin to farm,

> Toby spends the rest of the morning in the kitchen garden, digging and weeding… There are some chickenpeas beginning to sprout, and spinach leaves thrusting up, and the feathery tops of carrots…
> Crozier and Zunzuncito herd the Mo'Hairs out of their paddock so they can graze. (53)

As Toby weeds the garden, she reflects on what might have driven Crake to do what he did. Her reflection ends with the idea that he wanted to "Begin us anew" (54). Because the reader possesses knowledge about Crake's character which Toby does not, we know that Crake's desire was not to begin humanity anew. Rather he wanted to recreate a new kind of post-humanity free from all that he deemed problematic. Ironically, Toby's reflection is a truer outcome of Crake's actions. Because the scientist failed to fully consider the psychological, humanity begins again as it did once before.

Despite the existential nature of Atwood's explorations, she nonetheless incorporates humour into the text, avoiding the typically brutal nature of post-apocalyptic fiction. Her use of humour in many ways makes it difficult to mourn the loss of humanity, however, the fact that we see remnants of humanity re-emerging suggests that this mourning is futile as the unconsidered collective unconscious will come to light. This aspect of our human condition is the result of many years of socialisation, natural selection and environmental change. This persistence of culture again points to the importance of considering human psychology in a posthuman shift. Furthermore, her choice to subvert a narrative style which would typically be accompanied by mourning suggests that there are aspects of humanity which we may be better off without. Atwood heavily critiques the hubristic nature of science as well as the masochistic nature of an attempt to completely abandon anthropocentricism. These extreme, revolutionary views of society are depicted as being deeply flawed in their ignorance of human psychology and their

lack of dialectical sensibility. With that being said, Atwood is still critical of harmful anthropocentric thought resulting in human chauvinism and speciesism which in turn leads to human destruction of the natural world. This balanced critique is explored by Grimbeek as she highlights the limitations of interpreting the texts as a nod to the notion that "the natural environment in its profound resourcefulness will outlast human abuse of it and continue to be beautiful" (qtd. Grimbeek 64). While this may be true, and in many ways the trilogy does support this view in its bucolic settings post the Waterless Flood, Grimbeek explains that Atwood's texts are not about the absence of the human, instead they are an exploration of the question "What is a human being?" (64). Atwood suggests that an effective way to understand the human condition is to consider that which ultimately shapes all human beings, allowing for this human condition to reveal itself in a setting whereby external, societal factors do not encourage an ignorance or suppression of this condition. She takes this exploration a step further through the Crakers by examining the human as it exists within a genetically engineered posthuman. As such, Atwood critiques Crake's Malthusian, misanthropic approach to addressing the issues faced by humanity, suggesting that human problems cannot be solved by starting over. I describe Atwood's exploration as balanced as she acknowledges that while human beings contribute to environmental destruction, it is not necessarily our human nature which is the problem, rather the issue is overpopulation coupled with industrial society and massification. She presents this argument through the posthuman Crakers who despite regressing to human practices remain environmentally friendly beings. This is furthered through the God's Gardeners who, although critiqued for their misanthropic behaviours, live an environmentally sound life within an industrial society. Atwood explores the survivalist anthropocentrism of our nature, drawing our attention to the transcorporeality of humans and the natural world. She highlights the ways in which human beings have become so far removed from nature and how this may ultimately impede our survival. She explores how it is possible to forge a more symbiotic relationship with the natural world, with our survival supplemented by innate survivalist anthropocentrism. Furthermore, she parallels this exploration by examining the perdurability of nature while acknowledging the ways in which nature can be harsh and how a return to the natural can be arduous (Grimbeek 65).

Returning to the aforementioned narrative structure of the entire trilogy, I explained that the first two texts are largely comparable due to the binary nature of the themes explored in each. Critics such as Marinette Grimbeek explain the difficulties in truly gauging the critical reception of the trilogy as a whole because of this structure, "*Oryx and Crake* could be considered as a standalone text, while readings of *The Year of the Flood* may need to take into account (however cursorily) *Oryx and Crake* too. This is compounded with the publication of the third volume, particularly because *MaddAddam* relies on knowledge of the previous two novels to such an extent" (60). This structure may have influenced the scholarly articles written about each text, as far more has been said on *Oryx and Crake* than on the other two texts. Furthermore, Grimbeek points out that many articles engage superficially with linkages and differences between the texts, and that some readings which only take into consideration the first text "are often contradicted by details from the later novels" (61). As such, it is beneficial to consider how each text supplements the others and how an isolated reading of one text can ultimately lead to a misinterpretation of the trilogy as a whole. While *Oryx and Crake,* and perhaps even *The Year of the Flood,* might be exceptions as these texts can be read and understood on their own, scholarly articles which foreground these texts in their exploration of the trilogy as a whole might ignore the ways in which each text provides greater insight into the entire narrative presented by Atwood. Howells explains that while "In the trilogy, event recurrences and rhyming shapes of relationships across three books are obvious" (172), *Oryx and Crake* was published as a standalone novel, and it can certainly be read on its own. *Oryx and Crake* in isolation closely represents the binaristic nature of our society in which science is granted superior status over the humanities. The larger body of critical work on this text when compared to the others again furthers this point. This points back to my previous comment regarding the harmony between form and content in the trilogy. Atwood points to the unconsidered collective unconscious by not only progressing the narrative as the trilogy proceeds, but also by providing a greater exploration of the past in each of the novels following *Oryx and Crake.* Thus, an isolated reading of *Oryx and Crake* in many ways acts as the reader taking on the reductionist approach which Atwood critiques. A close consideration of each text reveals the dialectical sensibility of Atwood's writing. An example of this cohesion between the texts, which may not be overt without a comprehensive understanding of the narrative of all three texts, are the parallels that can be drawn between Jimmy and Crake, and Adam and Zeb. Like Jimmy and Crake, Adam and Zeb

largely bond over trauma, particularly regarding their dysfunctional upbringings. Initially we are made to believe that Zeb and Adam are half-brothers, both the children of the awful 'Rev'; however, we later find out that Zeb's speculations regarding the activities of his mother Trudy were in fact accurate and that he was not the Rev's son (136). An exploration into the couple's past sheds light on the characters we came to know in *The Year of the Flood.*

Much like the "cultish" God's Gardeners, we learn that Adam's father had a cult of his own called The Church of PetrOleum (136-7). It begins to make sense as to why Adam One might have chosen a religious eco-extremist group as the forum to carry out his activism. The psychological reaction of Adam One again shows the reader the limitations of an extreme view of society in response to that which we deem flawed. Adam's choice to start the Gardeners stems from his personal unconscious. His failure to acknowledge the ways in which his upbringing may have had an influence on his creation of the Gardeners leaves room for the enactment of extreme behaviours in reaction to his personal unconscious. This ultimately leads to the suppression of the collective unconscious as the Gardener's anti-anthropocentric ideologies in many ways go against natural survival instincts. This domino effect furthers Atwood's argument on the importance of considering human psychology. The objectives of the Gardeners are in direct opposition to those of the Rev's 'ecocidal' Petro-baptist church. The teachings of the Rev bring us back to the issue of environmentalism and scripture. While Adam One manipulates scripture to encourage an environmentally friendly way of life, the Rev uses scripture to justify ecocide,

> In the Rev's church – and around the Rev's dinner table too – we didn't pray for forgiveness or even for rain, though God knows we could have used some of each. We prayed for oil. Oh, and natural gas too – the Rev included that in his list of divine gifts for the chosen. Every time we said grace before meals the Rev would point out that it was oil that put the food on the table because it ran the tractors that plowed the fields and fuelled the trucks that delivered food to the stores. (139)

This extract not only provides insight into the questionable values of the Rev's church, but provides the reader with a stark comparison of life before and after the Waterless Flood. It also

reiterates the role that Christianity has played in formulating harmful mindsets towards the natural world as explored in the previous two chapters. Boyd observes this as she explains how the previous food system was "designed for consumer convenience and facilitated by industry", whereas post the Waterless Flood food is grown and harvested by hand (168). In direct opposition to the Rev's view of consumables, the Gardeners view sustenance as coming from the Earth and not from grocery stores. This explains why the surviving Gardeners are better equipped to survive in the post-apocalyptic world.

A closer look at Adam reveals a few similarities between him and Crake, "Adam was methodical: he contemplated, he thought things through", while Zeb's character is closer to that of Jimmy, "Zeb was impulsive: he shot from the hip" (139). Like Jimmy, Zeb has had many lovers, however his life has been largely loveless. Adam, on the other hand, is never described as being particularly enthusiastic in this regard; however, like Crake with Oryx, Adam finds his match in Katrina Wu, referred to by Zeb as Katrina WooWoo. This similarity extends further as like Oryx, Katrina is a sex worker and owner of "adult entertainment" club Scales and Tails (305), WooWoo is later revealed to be Eve One (381). Atwood's coinage of ridiculous names is seen too in the instance of Katrina's name as her surname echoes the way she makes Zeb feel as well as her ability to woo not only him and the men that enter her club, but also Adam One. The name is also applicable in that "woo-woo" is a slang term used to describe someone who is unquestioning and accepting of the occult. Katrina herself in many ways appears "mystical" and "paranormal" in her reptilian attire, however, Adam One is very much drawn to the mystical, this is evident through the creation of his religious sect and the stories which he formulates and shares with the members. Ironically this Eve One (Katrina) in many ways represents the serpent both literally in that she is depicted wearing a snake suit and carrying a python, and figuratively as she is the object of Adam's desire:

> She had a couple of outfits for that…a snakeskin one. For the snake act she also had a real snake: some sort of lobotomized python…A scaly, feathery woman is a powerful attraction. She's got an edge to her, like a goddess. (210-11)

In presenting Adam One's love interest as the creature associated with the fall of man Atwood highlights the desire that exists within human beings, once again commenting on the limitations of the repressive, masochistic behaviours of the God's Gardeners. While similarities are noted in Crake and Adam's intelligence and love life, we know that Crake gained a lot of knowledge from Zeb,

> Before he knew it, Zeb was giving young Glenn [Crake] some extracurricular lessons in coding, which meant – practically speaking – in hacking as well… How tempting was it to take that talent and hone it and polish it and pass on the keys to the kingdom – the Open Sesames, the back doors, the shortcuts? Very tempting. So that is what Zeb did. It was a lot of fun watching the kid soak it all up, and who was to foresee the consequences? (292)

Despite this text's differences from the first two, Atwood sustains the concept of 'ustopia', albeit a very different version. As previously explored the term 'ustopia' refers to a dystopia which contains certain utopic elements (Howells 86). In an article published by *The Guardian* Atwood describes the Crakers as the utopic element in the dystopic society of *Oryx and Crake*. I would also consider the Compounds to be a utopic element within the text because of their seclusion from the obviously dystopic pleeblands. With that being said, the Compounds themselves certainly contain the dystopic elements of hegemony, uniformity, surveillance and control, for instance. Atwood goes on to explain that the utopic element in *The Year of the Flood* is represented by the God's Gardeners. The Edencliff rooftop where the Gardeners live is certainly a sanctuary in the pleeb neighbourhood. However, as explored in the previous chapter, the masochism of the Gardeners adds a dystopic element to this enclave. The presence of the Crakers in *MaddAddam* suggests that they once again represent the utopic element in this novel. This might beg the question of whether the human survivors stand as the dystopic threat to these "perfect" beings (Howells 86). While the presence of human beings certainly disrupts Crake's vision for the "perfect" Crakers and the post-apocalyptic world which both humans and Crakers inhabit. The environment is utopic largely because of a human absence; the setting of this text is not typically post-apocalyptic. Crake's act of bioterrorism essentially forestalls the total obliteration of the natural world (Northover 1). The world we read about in *MaddAddam* is not

burned, barren and inhabitable. Therefore, despite the challenges of surviving in the wilderness, Atwood in many ways glamourises a return to the pastoral. In fact, it is the escaped Painballers that pose the greatest threat to both the Crakers and the surviving human beings. Thus, returning to the question posed above, human beings are essentially the disruptors of the utopic in *MaddAddam*. Atwood explores this point further as she suggests that her trilogy does not depict a true apocalypse, "[In] a true apocalypse everything on Earth is destroyed… [in the trilogy] the only element that is annihilated is the human race, or most of it. What survives the cataclysmic event is not a "dystopia", because many more people would be required for that – enough to comprise a society" (149). Here she again suggests that it is a human "society" which constitutes a dystopia, however the drastically dwindled human population does not allow for them to assume this role within the world of *MaddAddam*. Rather, Atwood presents the human survivors and the Crakers as supplementing each other's survival, again pointing to the transcorporeality of the human and other life forms, denying the human distinction between *bios* and *zoe*. Furthermore, she depicts humans as having a more harmonious relationship with the natural world. In this post-apocalyptic space judgement stems from nature, this shift destabilises the definition of humanity which we have come to understand in which human beings are the central element of existence. What is important to note is that the human survivors all formed a part of various groups opposed to the ways of the 'old world'. Atwood suggests that one's worldview contributes to one's success in the posthuman shift.

We witness a symbiosis between human, posthuman and nonhuman as the Crakers can communicate with the pigoons and the human beings protect the naive Crakers from the Painballers. Through this alliance, Atwood explores the benefits of a harmonious relationship with all life forms; however, she maintains that a complete abandonment of anthropocentrism is not only undesirable but impossible and that it ultimately impedes one's survival. While the Vegivows of the God's Gardeners served as a moral standpoint during a time when the consumption of meat contributed to mass animal suffering and environmental degradation, in this post-apocalyptic world the surviving Gardeners abandon these vows as a variety of food sources are not always readily available (46). The hierarchies we witness are in accordance with a more natural food chain and are in support of overall survival as opposed to human dominion over other life forms. The consumption of meat, however, excludes the consumption of the

pigoons as the humans reach a verbal agreement with the pigoons whereby they agree to no longer kill and eat the pigoons and in return the pigoons agree to no longer destroy the gardens planted by the humans (328). Furthermore, the pigoons ask that the humans help them kill the three "bad men" responsible for killing one of their young. Blackbeard describes how each party contributes to the battle against the Painballers,

> So [the pigoons] helped, by smelling the footprints of the bad men, and showing where they had gone. And by helping to chase after them.
> And I was there too, so that I could tell the others what the Pig Ones were saying…And Zeb used his stick thing, and the second bad man dropped his own stick thing and took hold of his own arm…And Rhino and Shackleton and the other ones with two skins went up the stairs, and caught the two men, and tied them with ropes, and pulled them down the stairs. (437-42)

The above is an example of survivalist anthropocentrism as the agreement between the humans and the pigoons supplements the survival of the human beings, however it extends further as the pigoons are viewed separately from other animals because of their 'humanness'. We know from *Oryx and Crake* that the pigoons contain human DNA to allow for xenotransplantation, however their humanness extends beyond their DNA as we see how the pigoons express emotions and display intelligence comparable with that of human beings. As such, when referring to the pigoons Toby assigns the pigoon in question the personal pronoun "her" rather than "it's", "*Her* back. The Pigoons were not objects. She had to get that right. It was only respectful" (427). Chen explains that the pigoons serve as an example of the posthuman existing within the nonhuman (194). While the human survivors live a less exploitative life, their understanding of the world still appears to be very human-centred, a natural tendency owed to our survivalism rooted in the collective unconscious. Here Atwood presents us with an example of anthropocentrism rooted in the natural urge to preserve one's species. Atwood maintains that the way in which the survivors live their lives is more environmentally beneficial. We witness the continuation of Gardener practices, many of which are no longer masochistic in nature owed to the vastly different social setting in which they are enacted. Toby explores this saying,

> It's like a surrealist painting from the twentieth century: every object ultra-solid, crisp, hard-edged, except that none of them should be here.
> But why not? thinks Toby. Why shouldn't they be here? Nothing in the material world died when the people did. Once, there were too many people and not enough stuff; now it's the other way around…We have laid claim to these chairs, these cups and glasses, we've lugged them here. Now that history is over, we're living in luxury, as far as goods and chattels go. (45)

We observe a few nostalgic returns to the 'old world' throughout the text. The above extract speaks to this as Toby relishes the luxuries of the past. The very act of congregating to eat breakfast at a prepared table with foods and beverages typically associated with this mealtime shows that despite living in a time when these practices no longer align with the setting, the human characters nonetheless partake in communal breakfast. The nostalgia of this gathering may very well stem from the collective unconscious or the 'primordial images' (67) belonging to all human beings as this gathering is representative of a persistent human practice through generations and across various cultures. The setting for this breakfast gathering including a "long dining room table" with a "shade sail deployed above it" (43) seems quite out of place in a world in which human constructions have mostly been destroyed; however, the humans do their best to preserve this tradition. This nostalgic preservation hints towards the aspects of the human being which remain despite changes to one's environment. This then extends into Atwood's observation of that which remains despite changes to the physical body, seen through the Crakers' reversion to the human condition which Crake aimed to genetically edit out of them. As the text progresses, we witness more and more "intrusions" of the 'old world' into the 'new world'. A perfect example of this is after the Painballers have been captured, a trial is held in order to decide their fate. Even though these men pose a direct threat to the survival of the God's Gardeners and the MaddAddamites, they feel it necessary to vote on whether the men live or die. Some of the survivors argue that the mens' lives should be spared for reproductive purposes or on the grounds of moral standards (449). Others argue that the already scarce resources should not be wasted on "these two cesspools" and that their reputation as rapists and murderers is sufficient for them to be killed (449). We notice that this same sentiment is not extended to the pigoons when these creatures pose a threat to the humans' survival. This highlights what appears

to be an unavoidable, unconscious bias rooted in survivalist anthropocentrism which causes the survivors to empathise or identify with fellow human beings.

While the text explores nostalgic returns to the past, it highlights the possibility that the context in which we live could influence our cultural practices, however these practices are in no way 'new', rather they resemble ancient practices that took place when human beings lived in a more pastoral environment, like that occupied by the survivors. The character Rebecca speaks to this as she exclaims, "Though I can see the day coming when we're not gonna be bothered with dishes anymore, we'll just eat with our hands" (46). As a result of Crake's destruction of human society, consumerist culture no longer reigns over the world. Furthermore, the materialistic culture of that society diminishes, thus the survivors turn to past cultural practices and slowly move away from more recent societal norms (Boyd 169). The survivors do what they can to imitate the comforts of the past through solar units and even experimenting with making charcoal (459). The beginnings of more formal agricultural practices appear as crops are grown and a flock of Mo'Hair are kept. The proliferating deer population are used as a source of protein and the young men begin fishing (458-9). Beyond practices to meet the group's physical needs they appear to participate in cultural practices as well: "White Sedge has begun a Meditation to Music group" (459). We read that Toby has created a calendar which adheres to all of the Gardener feast days, including a new day dedicated to the pigoons (461). In many ways these nostalgic returns bring to light a central theme of this text, which is hope. Ralph Pordzik's paper entitled "The Posthuman Future of Man" is relevant when looking at Atwood's text in this regard as he explains that a posthuman shift does not equal a transcendence of anthropocentrism. Instead, he explains that Atwood explores the limitations of science as the pinnacle of human reason, however, she maintains an aspect of the humanist debate as she defends the significance of art and language (153). While it is fair to argue that Atwood does not mourn the loss of humanity, her decision to depict these nostalgic returns is a nod towards the aspects of humanity which cannot simply be removed neither through the dismantling of the beliefs on which the notion of the human has been established, nor through evolutionary intervention. We observe how psychological reactivity to the past, rooted in the personal unconscious of Adam One and Crake, results in the paths of action chosen to amend the issues pertaining to the human, both of which are reactionary in nature. This in turn results in further psychological reactivity as seen through

the negative behaviours of the God's Gardeners and the re-emergence of human tendencies within the Crakers. Through this Atwood once again points to the necessity of considering human psychology in a posthuman shift, as a failure to do so results in unintended consequences. These "re-emergences" are further noted through the above-mentioned practices carried out by the survivors who, despite their changed environment maintain their 'humanness' through communal breakfasts, the celebration of feast days and the creation of mythology. We see the aspects that cannot be removed through scientific intervention through the genetically engineered Crakers. While Crake intended the Crakers to be emotionally, culturally, spiritually, and artistically inept as it is these things that he deduced to be the problematic aspects of humanity, he leaves a human being well versed in all these areas to guide his posthuman creations into this new era. As such, Atwood further highlights Crake's ignorance regarding human psychology. In the progression of her humanist argument, Atwood points to the aspects of the human condition which are not only unavoidable but also desirable. The advancement of this argument is in no way the frivolous forcing of a humanist agenda. Instead, Atwood's trilogy is a profoundly interesting take on the evident relevance of humanist psychology in the context of eco-apocalypse.

There is no denying that the Crakers are exceptional beings, they embody what many transhumanists envision for a posthuman future. However, Atwood prognosticates the shortcomings of a posthuman future that does not take human psychology into account. She does not suggest that considering human psychology would make this shift seamless, rather she highlights its importance because of the inevitable role that it would play. Despite the Crakers being the product of advanced science, we witness a return not just to the pastoral but to older human traditions. The stories that Toby tells the Crakers are essentially folklore. The Crakers slowly evolve or perhaps retrogress as they become more human. We witness the evolution of human beings recurring as the Crakers learn to write and read. They develop hierarchies amongst themselves and regard humans such as Snowman, Toby, and Zeb as prophets in their quest to understand where they came from. They long for answers, eagerly gathering around to hear Toby's heavily edited stories of how they came to be and what the world was like during "the chaos". As in many ancient cultures, Toby makes use of hallucinogens to receive a sign or vision to direct her guidance of the Crakers (273-4). We see the beginnings of idolatry as the Crakers

associate material items such as Snowman's baseball cap and broken watch with their 'deity' Crake. The Crakers believe that Toby possesses knowledge about Crake and the pre-apocalyptic world because she is in possession of these 'sacred' objects (59). Furthermore, they begin to form rituals outside of those genetically programmed into them. While the act of certain rituals such as the men urinating in a circle is a purposeful addition to their genetic code to keep predators away, we see the Crakers creating new traditions as they ritualise storytelling through sacrificing a fish which the storyteller must consume,

> They already know the story, but the important thing seems to be that Toby must tell it. She must make a show of eating the fish they've brought, charred on the outside and wrapped in leaves. She must put on Jimmy's ratty red baseball cap and his faceless watch and raise the watch to her ear. She must begin at the beginning, she must preside over the creation, she must make it rain. She must clear away the chaos, she must lead them out of the Egg and shepherd them down to the seashore. . . What they want from her is a seamless performance, as well as more information than she either knows or can invent (59-60).

Thus, both the human survivors as well as the Crakers begin to re-establish their humanness by building their community on historical human practices. This amounts to a critique of existing posthuman thought as Atwood represents the limitations of a posthuman shift which rests solely on either philosophical enquiry into the notion of the "human", or to genetic interference with the aspects of the human which are deemed problematic. She highlights how both approaches ignore the unconscious psychology which resulted in these "problems" in the first place. An acknowledgement of this psychology could illuminate the aspects of the human condition which cannot simply be changed or modified; rather attempts can be made to facilitate a posthuman shift which is mindful of the unconscious, both personal and collective. A consideration of the first would illuminate the possible influences behind the approach scientists or philosophers choose to pursue, while a consideration of the latter would allow for insight into collective behaviours and qualities which may arise again despite attempts to alter or change them. Atwood's view of religion as observed in *The Year of the Flood* is once again present this time regarding storytelling and cosmogonic mythmaking. Atwood suggests that these kinds of stories

serve a vital purpose. These stories provide both the Crakers as well as the human survivors with a sense of meaning and an understanding of their place within the world, furthermore these kinds of stories are used to relay important information across generations regarding how to navigate the world and ensure one's survival. Pordzik elaborates on Crake's limited view of language and thus storytelling and how his ignorance in this regard affects the Crakers:

> Language, for Crake, is merely a vehicle to transport notions already shaped and fixed in the mind. But in this he errs tremendously. The Crakers, like every other humanoid being, are users of language. Words structure their very perception of reality – a fact Crake underrated when he launched the project of creating a new species. All members of the tribe are fond of signs and symbols… The Crakers usually want to hear stories about their mythical origin. (153-4)

As such, Atwood suggests that this vital purpose which language and ultimately storytelling serve is that of perception and value formation. It is through stories that the Crakers receive answers to the questions that they have, thus allowing these stories to inform their self-awareness and how they might conduct themselves. Furthermore, the act of storytelling creates a sense of community amongst the Crakers and the surviving human beings. Pordzik goes on to explain that the importance of discourse is often "neglected by natural or applied science", "To [Atwood's] mind, humans and their language are inseparable and drawn to each other" (154). In suggesting that we should not or cannot live without stories, Atwood once again foregrounds human psychology, in particular communication and cognition. One of the first things we notice about storytelling is its generational nature. While both Snowman and Toby certainly embellish or distort the contents of the stories that they tell to the Crakers, they are nonetheless preserving cultural knowledge and passing it on to a new generation of beings. This once more speaks to the idea of nostalgic return, which does not necessarily amount to a mourning of humanity, but rather an indication of the human psychology ignored by science. Toby uses the stories she tells to the Crakers to help them establish their place in the post-apocalyptic world. It is through the act of storytelling that Toby encourages certain behaviours such as those rooted in survivalist anthropocentrism and discourages others such as the Craker practices which are deemed immoral by the human survivors. For example, Toby uses the stories that she tells to inform the Crakers

of the mistake that they made by untying the "bad men" and that these men are not their friends (59). She teaches them of the dangers of approaching certain animals, but also to always be kind to living creatures, "Yes, we must be kind to them. The best way of being kind to bears is not to be very close to them" (68). It is also through these stories that Toby explains the genetic differences and similarities between the humans and the Crakers, thus discouraging them from repeating the sexual assault that occurs in the beginning of the text as a result of their misunderstanding (132). It should be noted that the role which Toby fulfils is conducive to the formation of skewed power structures or hierarchies. While Toby does not abuse this power Atwood nonetheless highlights the possibility of the re-emergence of politics of the past.
The way in which Atwood approaches religion, as seen through the God's Gardeners in the previous novel, is passed forward to the Crakers through Toby as she shares her version of a moral code with the Crakers, one which promotes the wellbeing of all creatures while keeping the safety of the group in mind – anthropocentrism rooted in survival combined with a pro-social communitarianism that includes non-humans. These stories in many ways act as the main line of communication between the humans and the Crakers as day-to-day conversation is generally lost through the Crakers' limited understanding of idiomatic language. Through these stories Toby ultimately brings human and posthuman together through bridging communicative and cultural gaps. Beyond highlighting the crucial role it plays, Atwood asserts that "the chief value of storytelling from an evolutionary perspective is survival", she explains that we are "hard-wired to be curious" (qtd. Harland 594), the use of the term "hard-wired" again points to Jung's theory of the collective unconscious as it suggests the irrepressible nature of this aspect. As such, storytelling provides us with an evolutionary advantage in that through these stories we can share information, Atwood explains, "Evolutionary theory suggests that we selected for storytelling in the Pleistocene: if you can tell the kids a story about how Fred got eaten by a crocodile, they don't have to discover the child-eating propensities of crocodiles first-hand, and may live to pass on their DNA" (qtd Harland 594-5). Paul W. Harland expands on Atwood's exploration of the value of storytelling and how this is an innate characteristic of the human. He explores how Crake fails in his ignorance of this:

> The fact that the Crakers have begun to develop symbolic thinking, including creating their own religion, against the plans of their creator, is a reminder not only that creators

> of perfect worlds tend to make mistakes, but also that there is something essential to the survival of the Crakers that is expressing itself in their innate desires… the Crakers do begin to develop characteristics that remind us of ourselves, including the need for stories. (595-6)

In *The Year of the Flood,* we are given a version of the story of creation in the chapter entitled 'Creation Day'. Similarly, *MaddAddam* begins with a chapter entitled 'The Story of the Egg, and of Oryx and Crake, and how they made People and Animals, and of the Chaos, and of Snowman-the-Jimmy, and of the Smelly Bone and then coming of the Two Bad Men' (11). This chapter is Toby's creationist story, which she tells to the Crakers. What we notice, then, is that while human culture and folklore is pliable, it is constant. Crake's attempts to genetically engineer this out of the Crakers fails dismally as Atwood suggests that we need these things as they supplement our survival and that they are essentially what make us human. Pordzik explains this saying, "The [Crakers stand] in need of communication as a form of humanoid interaction if the evolutionary process is to continue" (156). In *Oryx and Crake,* we see Jimmy confirm this, "Maybe I could do some social interaction, thought Jimmy. Help them invent the wheel. Leave a legacy of knowledge. Pass on all my words" (339). We see not only survivalist anthropocentrism in a desire to preserve and continue the human through the legacy of knowledge, but also how there exists an innate human desire to share and hear stories, particularly our own stories rooted in the collective unconscious. The human according to Atwood is not necessarily that as it has been defined through exclusionary practices but rather 'the human' represents a pro-social, communitarian impulse. Through this suggestion, Atwood challenges the exclusionary notion of the human as a concept which rests on Western ideologies. She does so by humanising the posthuman Crakers, thus suggesting that a truer posthuman is one which considers human psychology as this cannot be edited out of our genome. Rather than attempting to remove the problematic aspects of the human condition through genetic engineering, it might be more beneficial to consider our epistemological foundations through a close understanding of that which is rooted in our collective unconscious. From this insight we might better understand the factors which contribute to our psychological reactivity.

We see one of Crake's concerns come to life at the end of *MaddAddam* as Blackbeard explains the differing beliefs regarding the fate of Toby. While he admits to not knowing exactly what became of Toby after her death, he records the variety of contrasting views on this,

> Some say that she died by herself, and was eaten by vultures. The Pig Ones say that. Others say she was taken away by Oryx, and is now flying in the forest at night, in the form of an Owl. Others said that she went to join Pilar, and that her Spirit is in the elderberry bush.
> Yet others say that she went to find Zeb, and that he is in the form of a Bear, and that she too is in the form of a Bear, and is with him today. That is the best answer, because it is the happiest; and I have written it down. I have written down the other answers too. But I made them in smaller writing. (473-4)

While in *Oryx and Crake* we read that the Crakers "would have no need to invent any harmful symbolisms" (305), we see in this final text that different beliefs regarding the afterlife begin to arise. The only creatures who abide by Crake's vision are the Pigoons who provide a version of Toby's fate grounded in reality, while the other versions echo spiritualism, reincarnation, and the idea of being taken by a god to the afterlife. The fact that the Pigoons are the only creatures which abide by Crake's secular vision suggests that his vision is unattainable through human or posthuman beings. If his desire was to do away with the "problematic" aspects of humanity, he was flawed in thinking that would have been possible through genetically engineering a human embryo as the unconsidered collective unconscious shaped by many years of evolutionary changes will come to light.

Atwood explores the essence of humanity as existing beyond our organic body (Pordzik 155). We see this through the Crakers' return to what Pordzik terms "the bosom of the human family", a "semiotic space" (156), "In their bodies, in their enhanced, reprogrammed biology, they may be post-, trans-, or even superhuman; but they are still subject to the laws of language and meaning production as chartered and realized in their minds" (156). The Crakers essentially escape the genetic coding of their maker and unknowingly capitulate to what Crake deemed the crux of "humanity's fatal flaws" (156). The resurfacing of the unchangeable aspects of the

human condition in the Crakers ultimately amounts to a humanising of these posthuman beings. On the contrary, we witness the human characters straying further and further away from the contemporary humanist notion of the human. This amounts to a 'dehumanisation' of the surviving humans not in the conventional sense of the word, but rather through a dismantling of the notion as conceptualised in harmful humanist traditions. This occurs through reversions to a worldview which does not rest on a belief in human exceptionalism. In humanising the posthuman Crakers and 'de-humanising' the human survivors, Atwood once again highlights the importance of considering human psychology in the shift towards a posthuman era. Pordzik terms Crake's ignorance a limitation of scientific governance, as Crake's desire to "force an evolutionary jump" fails to consider the Crakers' human needs for meaning and language in order to continue the survival of their species (156). Atwood's choice to end the book with the birth of Craker-human hybrids not only raises the idea of hope once more, but also sheds light on Atwood's vision of a posthuman shift. In allowing the Crakers and humans to interbreed Atwood draws our attention to the shared genetic code of the human and posthuman beings and suggests that a more ideal posthuman creation will acknowledge that which intrinsically makes us human, but also shift away from harmful beliefs rooted in speciesism and human chauvinism. Rather than a world where human beings reign supreme, or a world where human beings are totally obliterated and replaced with an enhanced version, Atwood presents us with a scenario in which both transhumanist and posthumanist visions of the posthuman (as they were explored in the first chapter of this dissertation) interact, cohabitate, and interbreed. While she criticises the limitations of science by reintroducing the human aspects which Crake aimed to eliminate, it is through these posthuman creations that Atwood depicts that it is possible to live in a mutually beneficial relationship with nature. The remaining human beings stand as examples of how we might navigate a world populated by posthuman beings, but also of how the notion of the posthuman extends further than just an enhanced body. We witness the survivors adjust not only their way of life but also their worldview in their attempts to navigate the role of the human in the post-Anthropocene. Atwood follows the trajectory of transhumanism in allowing Crake's evolutionary intervention to come to fruition, however she simultaneously explores less techno-centric posthumanism through removing humanity from its privileged position in relation to the environment and other life forms. This is done not only through the introduction of the

posthuman Crakers, but also through the dismantling of the ontological hierarchy on which the human has established its privileged position.

Despite her hopefulness, Atwood does leave room for speculation regarding the future of humanity and post-humanity alike. It is never made fully clear whether other human survivors exist. One may question how survivors not familiar with the Crakers would respond to these beings as well as to the new Craker-human hybrids. We know that remaining human survivors could potentially pose a threat to the community as Zeb, Rhino and Katuro do not return from their quest for the source of a stream of smoke seen in the distance, which they presume has been started by a human (471-2). The human society which Atwood critiques throughout her trilogy is the product of many years of adaptation and advancement. As such, this new posthuman society will surely undergo the same processes. This then begs the question of how this new society will evolve. Through the Crakers, we witness how certain aspects of human psychology are impossible to erase and that in erasing parts of the evolutionary developments of the human in an attempt to create a posthuman, one runs the risk of these developments arising once more. As such, it is plausible that the Crakers will evolve to repeat at least some of the mistakes of human beings. Atwood reminds us that the antidote to humanity's flaws is not scientific intervention and that the notion of an 'ideal human' (157) conceived by a human mind is unattainable. While I have spoken of Atwood's posthuman vision throughout each chapter, it is in this final text that the reader sees this vision mature. The era materialised within the trilogy can best be described as a movement "back to the future". The environment occupied by the Crakers and the human survivors is a largely natural space; the only remnants of the old world are dilapidated buildings. In this space where human beings no longer reign supreme over all life forms, they are able to enact survivalist anthropocentrism and forge a symbiotic relationship with the natural world. Those able to survive the Waterless Flood are those aware of the dawn of ecological apocalypse. These human beings begin to live a more ecologically sustainable life through the enactment of eco-religion. Through this Atwood suggests that a way forward is through the inversion of religion; instead of looking up for salvation we should turn our attention to the Earth which sustains us. I believe Atwood's posthuman vision characterised by a shift back to human beginnings is beneficial in its consideration of the natural world as well as of the ever-present aspects of our human condition. While Atwood is certainly aware of our psychology, hence her

critique of reactionary approaches which ignore it, she does not go on to explore the ways in which this society might eventually progress to the point at which we currently are. The re-emergence of ancient human practices means that the re-emergence of the harmful practices of our current times is not impossible and that the peaceful world presented at the end of *MaddAddam* may progress to represent the world first depicted to us in *Oryx and Crake*. With that being said, Atwood's trilogy essentially acts as a pre-emptive warning in this regard. By exploring the collective unconscious in regard to a posthuman shift, Atwood draws our attention to the irrepressible inclinations of the human, and how a consideration of this might guide us and better prepare us for our posthuman future.

The ending of the trilogy is characterised by a sense of loss. We witness this sense of loss on a micro scale as Toby mourns the loss of Zeb and eventually decides to end her own life by retreating into the forest with a jar of her potent mushrooms (473). We also witness an ontological loss as the reader can assume that some of our human ways may be passing out of the world. While human practices like religion, symbolic reasoning and storytelling resurface in the posthuman Crakers, we can assume that eventually all human beings will slowly be supplemented by Crakers or Craker-human hybrids (Harland 586). This may result in many exclusively human traits being lost (Harland 586). For example, the Crakers are incapable of understanding language at an idiomatic level, Harland describes this as a loss of "[a] flawed sense of irony, play, doubleness, wit – which is also linked to the ability to create and destroy" (586). It is, however, unclear what purely human aspects the hybrid beings will possess or lose as Atwood ends her novel with a similar air of uncertainty to that which we currently face regarding the future of our species. Ultimately, Atwood bequeaths her story of the future to the hands of the reader. While this final novel brings the theme of loss to the foreground, it is a theme which has been sustained throughout the entire trilogy. This loss is seen through loss of life, destruction of the natural world and the end of humanity. While loss is generally associated with mourning, and the instances of personal loss within the text are followed by lamentation, the instances of mass scale loss are treated differently. We know from *The Year of the Flood* that the God's Gardeners prophesy and prepare for the Waterless Flood. That which is lost is largely absent from the Gardeners' life in any case. We know from their sermons that the reason for the environmental destruction present in the texts is owing to the greed of human beings. Thus, the

obliteration of most of the human race, although a tragedy in terms of loss of life, is essentially an antidote to these environmental issues. With that being said, Atwood counterbalances this radical point through her blatant critique and mockery of the extremist nature of the Gardeners' practices as well as the hubristic nature of Crake's "cure" for humanity so as not to have her work reduced to "environmental propaganda" (qtd. Grimbeek 38). Atwood draws our attention to this mass scale loss as she suggests that a shift towards a posthuman era will be characterised by drastic change. Harland describes fiction of this kind as "help[ing] us to feel the grief for what we are in the process of losing" (583). He explains that the accumulation of grief in the text "can be read largely as ecological grief" (587). It is this "ecological grief" which is the catalyst for Crake's apocalypse as although his plan is a product of psychological reactivity, he is also guided by ecological concerns. He says, "As a species we're in deep trouble, worse than anyone's saying… we're running out of space-time" (295). Through Crake it is particularly evident how "unmourned losses" can result in what Snyder terms "the re-enactment of cataclysmic trauma on the global stage" (473). Thus, through the mourning of humanity in this final text we can be hopeful that the processing of this trauma by the survivors might allow them to navigate the posthuman era without reverting to all of the problematic behaviours of the world pre- the Waterless Flood. Despite the real, and serious concerns addressed, Atwood does not abandon her humour in this twilight hour. As previously mentioned, the trilogy ends with stories told by the Craker Blackbeard. Despite their perfect bodies, Atwood clearly depicts the naivety of these beings. Blackbeard's writing is very juvenile and, in many ways, comical. The very last line of the trilogy, "Now we will sing" is humorous in that throughout the trilogy the incessant singing of the Crakers often interjects and hinders the narrative, not only to the frustration of the human characters but of the reader too. It is also, however, Atwood's final reminder to the reader of the irrepressible aspects of the human, and the place of the humanities in the post-apocalyptic world.

Conclusion:

This dissertation has explored the concept of the posthuman as it appears across Atwood's *MaddAddam* trilogy. Through a close reading of the texts, I have argued that Atwood advocates for a holistic shift towards a posthuman era, one not solely focused on the possibilities of human enhancement through scientific intervention, nor a posthuman shift characterised solely by philosophical enquiry into the notion of the "human". I agree with Atwood that a close consideration of human psychology is not only beneficial but necessary in embracing an era in which the notion of the human as it is currently understood is drastically altered, be it through changes to the human genome or changes to the hierarchical ontology on which the 'human' has been established. This more self-conscious approach to the posthuman is responsible in its internalisation of solutions to the issues currently surrounding posthuman theory. Approaches, such as those suggested by transhumanism and those enacted by Crake, rely solely on external solutions as a means of intervention. This approach, at least in the case of transhumanism, leaves room for hubris in its failure to recognise the imbrication of the human and the natural world. While it is evident that Crake recognised this transcorporeality through his attempt to create a race which would live in unison with nature, hubris is nonetheless enacted through his inability to consider the internal processes, rooted in the collective unconscious, responsible for the aspects of humanity that he deems flawed. Hence this dissertation has explored the limitations of adopting a restricted posthuman vision. A posthumanism which focuses solely on a philosophical deconstruction of the notion of the 'human' can become preoccupied with the enactment of a masochistic kind of altruism which does not necessarily address the problematic aspects of anthropocentrism. Through the God's Gardeners Atwood depicts how a total disapprobation of technology is not only Luddite, but it in no way forestalls these kinds of advancements. Furthermore, it goes against our natural inclination towards survivalist anthropocentrism. Atwood does not discredit either of these approaches to the posthuman entirely. Instead, she considers each at length in her quest to present her own posthuman vision. This vision is not presented in the same binaristic way as the existing schools of thought. Rather than focusing on or critiquing a single aspect Atwood includes both genetically enhanced beings, as well as humans critical of anthropocentric practices in the same post-apocalyptic setting, thus deconstructing the dualistic tendency of posthuman thought.

Atwood's dialectical sensibility extends into the narrative structure of this trilogy which provides the reader with shifting perspectives over an extended timeline. This allows for a thorough exploration of each aspect of the posthuman issue as it exists in contemporary theory. As such, Atwood explores the pros and the cons of the notion of the posthuman as it has been proposed by both transhumanist and posthumanist thinkers. Through exploring both a philosophical approach and a techno-centric approach, Atwood presents us with her posthuman vision, which strikes a balance in exploring the benefits and limitations of each. Atwood recognises the technological age in which we live, however she warns us of the unintended consequences of a progression which is ignorant of human psychology and rooted in hubris. Similarly, she explores the benefits and possibility of adopting a more ecologically sound lifestyle within contemporary society, however, she highlights how an abandonment of all commonplace practices can easily morph into the enactment of masochistic behaviours which go against our natural tendencies towards survivalism. Rather than aiming for an overcoming of anthropocentrism, or engaging in a ceaseless critique of technology, we see that a degree of self-interest is necessary to ensure our survival. As such, Atwood proposes that the best thing we can do is attempt to remain observant and critical, while also remaining mindful that the very human "fallibility" which some posthuman thinkers critique exists within all of us. Rather than aiming for unremitting criticism of a techno-future, Atwood's texts highlight how the real issue with this kind of technology is a lack of regulation and control. Atwood suggests that a posthuman future guided by science and technology should be characterised by practical rather than profitable consideration of these innovations. Through this suggestion Atwood critiques the neoliberal nature of this industry as profit goals outweigh thorough testing and consideration of the potential ramifications of these sciences and technologies, thus leaving us playing catch-up with technology as we only discover its dangers once it is already in use.

By considering the texts from an ecocritical point of view it is evident that Atwood's environmental concerns ultimately amount to a critique of harmful anthropocentrism and a damaging disregard of the natural world at large. Throughout the text we witness Atwood's critique not only of an unexamined psychology in relation to the realisation of a posthuman era, but how this currently affects the world in which we live. Atwood openly examines the major

role which giant corporations play in the environmental crisis through her satirical representations of these organisations; she also critiques the inadequate governance of governmental bodies regarding these issues by presenting us with a neomedieval state in which a larger proportion of the power is in the hands of these corporations. She does not, however, leave the reader beyond criticism. Through her depictions of the individuals' inclination towards consumerism Atwood comments on the role each individual plays in environmental destruction. Furthermore, she explores how the enactment of extremist behaviours contrary to these can quickly become masochistic in nature.

This dissertation raises some of the challenges and concerns of contemporary posthuman theory. In doing so, it explores at least one possible realisation of a posthuman era based on Atwood's extrapolative writing, while remaining mindful of the plethora of possibilities that exist. Ingersoll describes Atwood as, "[providing] the foundation of a future world that seems a believable extrapolation of contemporary nightmares" (164). Not only does Atwood provide a thorough exploration of existing posthumanist thought throughout the *MaddAddam* trilogy by referring to approaches focused solely on science and technology, as well as those focused on a posthuman future characterised by ontological enquiry, she also provides us with her own, more balanced, posthuman vision. This vision is balanced in its exploration of both approaches, as Atwood borrows aspects from each. What Atwood introduces, which is largely absent from other approaches, is a deep consideration of human psychology particularly in relation to Jung's theory of the collective unconscious. Atwood looks at those aspects of the human condition which cannot be changed through genetic intervention or through attempts to suppress these aspects such as our inclination towards survivalism, religion and storytelling. By the end of the trilogy Atwood's posthuman vision combines the products of a transhuman approach with members from a group which aim to subvert anthropocentric thought. In this setting Atwood shows us that the way in which the survivors live their life is largely dictated by nature as opposed to anthropocentric projections. As such we witness the human survivors' enactment of survivalist anthropocentrism rather than anthropocentrism rooted in human chauvinism and speciesism. While I have repeatedly referred to Atwood's posthuman vision as balanced it is important to note that despite this there are some limitations to consider. The enactment of Atwood's posthuman vision takes place within a post-apocalyptic space which in no way resembles our

contemporary society. As such the practicality of her approach is questioned. This is a fair critique as a great contributor to environmental destruction is industrialisation and massification, both of which cater to our inordinate population. The issue of overpopulation is one not easily resolved without turning to extremist actions such as those observed by Crake, actions which Atwood is critical of. The decision to remove oneself from this kind of society in an attempt to lessen its destruction, while environmentally conscious, is also not practical. While Atwood advocates for a kind of eco-religion, she explores the limitations of attempting to isolate oneself from society. As such, a literal recreation of Atwood's posthuman vision is not entirely possible without recourse to the aforementioned approaches. Instead, what Atwood provides her readers with is an exploration of existing posthuman theory, drawing our attention to the shortfalls thereof. She encourages us to consider human psychology in this shift, suggesting that in order to understand where we are going, we need to consider where we have been.

Because Atwood draws on the work of Carl G. Jung in her posthuman explorations, some of the critiques of his theory on the collective unconscious are then applicable to Atwood's own work. Like Jung, Atwood places much emphasis on that which cannot necessarily be tested, such as our human inclination towards mythology, religion and storytelling. Many have dismissed Jung's work as "sheer mysticism" (Drake 321). This critique is very much rooted in the binarism of science versus humanities which Atwood closely explores in *Oryx and Crake.* While this critique is true in that these phenomena cannot be proven through tests or scientific enquiry, the very nature of this critique furthers Atwood's own argument. The role of scientific enquiry and evidence should in no way be downplayed, as the field of science has contributed greatly to many aspects of our human existence. With that being said, these explorations need not trump explorations made in the humanities simply because they are derived from the field which receives greater reverence. It is reductionist to think that it is only through scientific enquiry that a greater understanding of the human condition can be acquired. Atwood clearly depicts this through Crake as despite his thorough research and experimentation, his posthuman creations are still subject to the phenomena which he has worked tirelessly to remove from their genetic coding. In fact, Atwood explores the ways in which these unconsidered aspects of the human condition are essentially what make us human. While I have explained that Atwood's writing is

characterised by a balanced dialectical sensibility, I would argue that she leans in favour of the posthumanist thought embodied by the God's Gardeners because their lifestyle is sustainable. The overarching theme in the *MaddAddam* trilogy is that of environmental concern. Atwood explores the posthuman with the environment in mind as the posthuman is greatly influenced by this factor. Atwood's balanced approach is very considerate of the natural world as she depicts a posthuman future in which human beings no longer reign supreme over other life forms. Instead, the relationship between human beings and the natural world is one which supplements human survival without being exploitative in nature. Atwood advances her ecological argument through the creation of the eco-sect, the God's Gardeners. I have explained that she critiques certain aspects of this group, however it is through them that we can imagine what it might be like to live in an environmentally friendly way within the constraints of industrialised mass society. While a complete abandonment of anthropocentrism is not desirable or sustainable, living a life in harmony with nature will require us to sacrifice at least a degree of the comforts and convenience provided to us by massification.

The chapter entitled 'Time Capsule Found on the Dead Planet' which appears in *In Other Worlds,* is in many ways closely linked to the trilogy. In this chapter Atwood explores how ancient religion was once greener, something which she recreates through the God's Gardeners:

> In the first age, we created gods. We carved them out of wood; there was still such a thing as wood, then. We forged them from shining metals…They were gods of many kinds, and goddesses as well. Sometimes they were cruel and drank our blood, but also they gave us rain and sunshine, favourable winds, good harvests, fertile animals, many children. A million birds flew over us then, a million fish swan in our seas. Our gods had horns on their heads, or moons, or sealy fins, or the beaks of eagles… We smelled the earth and rolled in it; its juices ran down our chins. (336)

As the chapter continues, we see how this connection to the natural was destroyed by greed, and how money became our god. This in many ways mirrors the rampant consumerism we read about in the trilogy,

> This money was also made of shining metals. It had two faces: on one side was a severed head, that of a king or some other noteworthy person; on the other face was something else… a bird, a fish, a fur-bearing animal. This was all that remained of our former gods. We could not eat this money, wear it, or burn it for warmth… If you had enough of it, it was said, you would be able to fly. (336-7)

She then refers to the destruction to the natural world which took place in the name of money, greed and "progress". This destruction mimics the destruction of the natural world in the trilogy, "In the fourth age we created deserts… they had one thing in common: nothing grew there. We made these deserts from the desire for more money and from despair at the lack of it" (337). This chapter explores natural destruction to its end as Atwood explains how all the seas died, all water sources became poisoned, and the land could no longer bear crops (337). The trilogy however diverges from this narrative as Atwood forestalls this destruction through Crake's plan to eliminate most of humanity. While this short story echoes the despair typical of this kind of writing, all three texts of the trilogy echo hope. 'Time Capsule Found on the Dead Planet' ends with "Pray for us, who once, too, thought we could fly" (338). The narrative presented in *Oryx and Crake, The Year of the Flood* and *MaddAddam* in many ways presents itself as that prayer through depictions of hope after destruction and a world in which humans begin to navigate living in unison with the natural world.

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