Margaret Atwood: Speculative Fiction and Virtue Ethics

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Abstract

Margaret Atwood has long argued that her writing is an ethical project: she has described art, with implicit emphasis on narrative art forms such as the novel, as 'the moral and ethical guardian of the community', and sees her own creative practice as taking part in this tradition. Across the first decade of the twenty-first century, Atwood published a trilogy of novels that raise concerns about humanity's ability to survive that century. This provokes the questions: how does the *MaddAddam* trilogy (2003-2013) undertake this ethical guardianship? And what forms does this guardianship take? I argue that Atwood's texts depend on the virtue of temperance, re-conceived for the twenty-first century. In doing so, I understand Atwood to be renewing her commitment to humanism, in contrast to a growing body of transhumanist and critical posthumanist readings of her work. These claims are interpreted in relation to her positioning of the text as "ustopian" speculative fiction, and her adoption of human nature as a central moral concept.

The thesis begins with a theoretical introduction that examines Atwood's genre claims, and explains how we can interpret Atwood's ethical claims within the frame of virtue ethics — specifically the thought of Martha Nussbaum, Iris Murdoch, Shannon Vallor, and Byron Williston. The second chapter examines the discourse of transhumanism in the novels; it elaborates the continuing importance of survival to Atwood's writing, and explores her depiction of neohumans — genetically modified creatures created from human genetic material. The trilogy rejects the transhumanist method of survival, and I focus on the central place of narrative art in resisting such methods. The third chapter explores how genetic technologies applied to non-human animals for food production are similarly rejected by Atwood. This exploration is furthered by framing Atwood's representation of food in other texts, specifically her children's fiction, and connecting this to the representation of ChickieNobs, Pigoons, and vegans. The fourth chapter nuances the findings of the previous chapters by disputing the ascription of the stereotyped epithet "mad scientist" to Crake, who engineers the virus that wipes out the human race in the trilogy. Atwood's trilogy is not anti-science, and Atwood's complex characterisation of Crake is one of the most significant contributors to her model of the operation of temperance: Crake is the last chance for a human society that has grown abhorrently and uncontrollably vicious, and as such embodies the only alternative to embracing temperance now. The fifth chapter examines the trilogy as a commercial and technological enterprise, and traces the ethical arguments presented by the trilogy in Atwood's life as a public figure. The emphasis on temperance is connected to Atwood's adoption of pledges as a further means of encouraging virtue. I close the thesis by describing the continuing emphasis on these issues in Atwood's subsequent works, specifically *The Heart Goes Last* (2015) and *Hag-Seed* (2016), indicating that these themes play a significant role in her twenty-first century fiction.

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Epigraphs

There is no necessity, that a generous action, barely mentioned in an old history or remote gazette, should communicate any strong feelings of applause and admiration. Virtue, placed at such a distance, is like a fixed star, which, though to the eye of reason it may appear as luminous as the sun in his meridian, is so infinitely removed as to affect the senses, neither with light nor heat. Bring this virtue nearer, by our acquaintance or connexion with the persons, or even by an eloquent recital of the case; our hearts are immediately caught, our sympathy enlivened, and our cool approbation converted into the warmest sentiments of friendship and regard. These seem necessary and infallible consequences of the general principles of human nature, as discovered in common life and practice.[1]

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You don't like this future? Switch it off. Order another. Return to sender.[2]

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Years later, when [Tom] Lehrer collaborated with Mackintosh on *Tom Foolery*, he gave the director a note: "The nastier the sentiment, the wider the smile."[3]

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But I like my stories to be true to life, which means there have to be wolves in them. Wolves in one form or another. […] All stories are about wolves. All worth repeating, that is. Anything else is sentimental drivel. […] Think about it. There's escaping from the wolves, fighting the wolves, capturing the wolves, taming the wolves. Being thrown to the wolves, or throwing others to the wolves so the wolves will eat them instead of you. Running with the wolf

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[1] David Hume, *An Enquiry Concerning the Principles of Morals*, ed. by Tom L. Beauchamp (Oxford: OUP, 1998), p. 117.

[2] Margaret Atwood, 'Hardball', in *Good Bones* (London: Virago, 2010), pp. 87–90 (p. 90).

[3] Anita Badejo and Ben Smith, 'Looking For Tom Lehrer, Comedy's Mysterious Genius', *BuzzFeed*, 2014 <https://www.buzzfeed.com/bensmith/tom-lehrer> [accessed 10 April 2018].

pack. Turning into a wolf. Best of all, turning into the head wolf. No other decent stories exist.[4]

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[4] Margaret Atwood, *The Blind Assassin* (London: Virago, 2010), pp. 423–24.

1 | Introduction

> Newsstands blow up
>
> for no reason. Bookstores as well.
>
> You're clamped to a windowsill
>
> gibbering with adrenaline
>
> as the light-beam swings past you.
>
> Holy hell, you whisper.
>
> Now, that's finally meaningful.[1]

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Margaret Atwood has long argued that her writing is an ethical project which aims to shape the practical views of its readers: she has described art, with implicit emphasis on narrative art forms such as the novel, as 'the moral and ethical guardian of the community', and sees her own creative practice as taking part in this tradition.[2] In the opening decades of the twenty-first century she has written several speculative fictions which express a bleak view of the current situation of human affairs, requiring the extinction of our species and its replacement with a variant of hominid which is designed to have a sustainable relationship with the biosphere. These dystopian novels can be read as both a critique of existing practices, and a warning about the consequences of failure to change those practices. Consequently, the novels rely on and construct a standard of temperance which, it is implied, will ameliorate twenty-first century conditions to allow human beings to survive in the form in which we currently know them. This standard of temperance is drawn against a

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[1] Margaret Atwood, 'Thriller Suite: New Poems', *Wattpad*, 2014 <http://www.wattpad.com/story/1563997-thriller-suite-new-poems> [accessed 27 May 2014].

[2] Margaret Atwood, 'An End to an Audience?', *The Dalhousie Review*, LX.3 (1980), 415–33 (p. 424).

background of 'shared conceptions of social goods' which reflect specifically Western

conceptions of the good life in the age of the Anthropocene.[3] That background also includes a

recognition of a strand of biologically determined goods, which reflect a historic, common,

and shared human nature — thus I assume a recognition that 'we are very different, and we

are also manifestly alike.'[4] To fill out this conception of temperance I will rely on virtue

ethics, and regard temperance as a virtue which navigates between 'extremes of self-

indulgent and even addictive appetite' and 'an unappreciative and insensitive puritanism'.[5]

This virtue needs to be shaped by a 'technomoral' sensibility appropriate to the twenty-first

century.[6] Jennifer Wagner-Lawlor — who places Atwood's writing in an emergent trend of

feminist speculative fiction at the turn of the twenty-first century — writes of her

'commitment to Atwood's challenge that we do more than "fare well," but that we "*fare*

forward"'; that is, she argues that we should draw inspiration from Atwood's creative works

to take control of our own lives with respect to the degradation of the planet and social life.[7]

Thus, I read Atwood's works as a particularly strong example of the novel acting as 'a

morally controversial form, expressing in its very shape and style, in its modes of interactions

with its readers, a normative sense of life'.[8]

    In this thesis I will explore how we can interpret Atwood's moral claim by tracing the

virtue of temperance through the *MaddAddam* trilogy, composed of *Oryx and Crake* (2003),

The Year of the Flood (2009), and *MaddAddam* (2013); to do so effectively, I also make links

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[3] Michael Walzer, *Spheres of Justice: A Defense of Pluralism and Equality* (New York, NY: Basic Books, 1983), p. xv.

[4] Walzer, *Spheres of Justice*, p. xii.

[5] Alasdair MacIntyre, *Dependent Rational Animals: Why Human Beings Need the Virtues* (London: Duckworth, 2009), pp. 87–88.

[6] Shannon Vallor, *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting* (Oxford: OUP, 2016), pp. 85–86.

[7] Jennifer A. Wagner-Lawlor, *Postmodern Utopias and Feminist Fictions* (Cambridge: CUP, 2013), p. vii.

[8] Martha Nussbaum, 'The Literary Imagination in Public Life', in *Renegotiating Ethics in Literature, Philosophy, and Theory*, ed. by Jane Adamson, Richard Freadman, and David Parker (Cambridge: Cambridge University Press, 1998), pp. 222–46 (p. 224).

to a number of other Atwood texts in a range of forms published in the first two decades of the twenty-first century, such as her children's literature, poetry, short stories, and comics, as well as non-fiction works such as *Survival* (1972) and *Payback* (2008). This period approximately consists of 2000-2018 for most purposes.

In this opening chapter, I want to address some methodological questions and to frame the background against which my reading of Atwood's trilogy takes place. First, it will be helpful to provide a brief overview of the historical circumstances surrounding the creation of the trilogy, and to characterise the historic period in which it was written. I also offer a brief outline of the narrative, form, and structure of the trilogy, which lays the groundwork for my subsequent argument.[9] Atwood's interventions in the reception of the trilogy as "speculative fiction" rather than "science fiction" compels a consideration of the question of the genre of the trilogy, especially since this plays an important role in determining how critics have read it. Finally I will outline the concepts from virtue ethics on which my reading is based, with a particular emphasis on *eudaimonia* and the virtue of temperance. The insistence by prominent virtue ethicists that literature is an important mode of ethical thinking is matched by literary critics who are interested in practising their own forms of ethical criticism. Neither of these groups of scholars have paid significant attention to genre fiction, and Atwood's fiction, which retains an emphasis on the inheritance of the novelistic tradition but which also revels in popular culture and popular forms of writing, makes for a particularly compelling case in this regard; choosing their examples solely from a canonical list of novels has impoverished the ethical criticism practised by these scholars.

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[9]   For more detail, please see Appendix 1.

Atwood in the Twenty-First Century

Anthony Siegrist describes Atwood's work in the *MaddAddam* trilogy as that of an 'indigenous ethnographer'; he suggests that the novels are primarily descriptive of the techno-social reality of the twenty-first century.[10] Atwood is an 'emissary of the world among us' in Moss and Kozakewich's formation.[11] Fresh from winning the Booker Prize in 2000, Atwood began writing a trilogy that would take the next ten years to complete. This marks it out in Atwood's oeuvre — not only is it the only explicitly connected sequence of novels in her work, but it was also the longest in the making. While Siegrist captures something important about the descriptive nature of the trilogy, Atwood is not an anthropologist, committed to objectivity in her description. Rather, she sees the twenty-first century as bedevilled with a series of crises, including global inequality, climate change, and widespread environmental destruction. Atwood does more than just depict these; she condemns them. By writing these novels, she seeks to change the world — not as legislation changes the world, but by making 'change a possibility in the imagination'.[12] This is how the novels takes up their moral guardianship of the community, and Atwood sees a particular need for this function at this particular moment in history.

The post-millennial period has been marked by a number of historic changes, which have transformed the lives of billions in extraordinary ways. Atwood's writing reflects and probes these changes, though as Coral Ann Howells notes, 'Atwood has shifted the emphases in her storytelling, challenging realist conventions as she revisits an array of popular genres,

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[10] Anthony G. Siegrist, *Technoculture and Transcendence: A Theological Exploration of Margaret Atwoods's MaddAddam Trilogy* (College of Saint Benedict and Saint John's University Digital Commons, 2015) <https://www.youtube.com/watch?v=pdWy1Ev30iE> [accessed 26 August 2018] (20:05).

[11] *Margaret Atwood: The Open Eye*, ed. by John Moss and Tobi Kozakewich (Ottawa, ON: University of Ottawa Press, 2006), p. 1.

[12] Karla Hammond, 'Articulating the Mute', in *Margaret Atwood: Conversations*, ed. by Earl G. Ingersoll (London: Virago, 1992), pp. 109–20 (p. 120).

constructing what we might describe as transgressive entertainments.'[13] As such, when Atwood's work reflects these changes it is not bound to do so in a strictly realist manner. At the Millennium summit in 2000, eight targets were collectively established by the then 191 member states of the United Nations. These were to reflect the broader goal of creating 'a more peaceful, prosperous and just world', acknowledging that 'we have a collective responsibility to uphold the principles of human dignity, equality, and equity at the global level'.[14] The eradication of extreme poverty, the provision of universal primary education, the promotion of gender equality, the reduction of child mortality, the improvement of maternal health, the reduction of widespread diseases, the promotion of environmental sustainability, and the construction of a partnership framework for global development: these goals were set, but unevenly achieved, where they were achieved at all, by the time of their expiry in 2015. The Millennium Development Goals represent a hopeful beginning to the twenty-first century, a world to be marked by increased cooperation. It was to be a world that had experienced, in the words of Francis Fukuyama, 'the end of history'; where liberal democracy had been established as the most successful form of government in the Darwinian cut-and-thrust of the twentieth century.[15] But the fact that a form of government is pervasive at one stage of history, or has survived a certain period or set of troubles, does not guarantee that it is in fact the superior form of government. This form of argument is a kind of survivorship bias, in which survival is taken as indicative of superiority when it need not be so.

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[13] Coral Ann Howells, 'True Trash: Genre Fiction Revisited In Margaret Atwood's Stone Mattress, The Heart Goes Last, And Hag-Seed', *Contemporary Women's Writing*, 2017, pp. 1–2 <https://doi.org/10.1093/cwwrit/vpx010>.

[14] The General Assembly of the United Nations, '55/2. United Nations Millennium Declaration', 2000, sec. 1 <https://www.un.org/millennium/declaration/ares552e.htm> [accessed 12 December 2017].

[15] Francis Fukuyama, *The End of History and the Last Man* (New York, NY: The Free Press, 1992), p. xi.

Indeed, contrary to such optimism, critics have read Atwood's work since the Millennium as introducing a note of scepticism concerning contemporary forms of globalized capitalism and its corrosive effects on democratic societies and values.[16] Read in this way, the society in the trilogy is a kind of corporatocracy, where society is governed by a group of corporations or through their extended corporate interests; this has hollowed out liberal democracy for the economic purposes of those corporations. The *MaddAddam* trilogy sustains a critique of liberal democracy, highlighting concerns that it may be unequal to the emergent dangers of the twenty-first century, particularly climate change. Ingmar Persson and Julian Savulescu, in *Unfit for the Future* (2012), suggest that human beings are not equipped with sufficient moral psychology to cope with twenty-first century problems, and that biological modification of the human species is the only way to adjust to the moral situation, with the suggestion that 'liberal democracy […] makes some of these problems more acute'.[17] However, where they appear in the trilogy, other forms of government are also decried as totalitarian. In this sense, the trilogy represents a reworking of the phrase attributed to Winston Churchill: that "democracy is the worst form of Government except for all those other forms that have been tried from time to time". On this point, Atwood has said on several occasions that she would vote for a turnip if it was "transparent, accountable, listened to people, and was a parliamentary democrat" — consequently, she says, there is some pressure for the turnip to become a write-in candidate or even form its own party.[18]

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[16] See Chris Vials, 'Margaret Atwood's Dystopic Fiction and the Contradictions of Neoliberal Freedom', *Textual Practice*, 29.2 (2015), 235–54 <https://doi.org/10.1080/0950236X.2014.993518>; Danette DiMarco, 'Paradice Lost, Paradise Regained: Homo Faber and the Makings of a New Beginning in Oryx and Crake', *Papers on Language and Literature*, 41.2 (2005), 170–95; Gerry Canavan, 'Hope, But Not for Us: Ecological Science Fiction and the End of the World in Margaret Atwood's Oryx and Crake and The Year of the Flood', *Lit: Literature Interpretation Theory*, 23.2 (2012), 138–59, etc.

[17] Ingmar Persson and Julian Savulescu, *Unfit for the Future* (Oxford: OUP, 2012), p. 1.

[18] Big Think, *How to Tweet Like Margaret Atwood* (Youtube, 2011) <http://www.youtube.com/watch?v=9e-ugLMgfT4&feature=youtube_gdata_player> [accessed 2 September 2014].

The turn of the millennium was also marked, more or less, by the 11 September attacks on the United States of America in 2001, in which four commercial passenger planes were hijacked and flown into various targets: two into the towers of the World Trade Center in New York, and one into the Pentagon in Virginia. The fourth was intended to hit a target in Washington, D.C., but was diverted from its course and subsequently crashed when passengers attempted to retake control of the aircraft. These attacks have been seen by many as a landmark event in determining the course of the twenty-first century, with foreign and domestic policy repercussions across the world. These include consequences for political freedoms, the displacement of existing governments from various nation states, particularly in the Middle East, and, more broadly, a shift towards an unstable and uncertain international political landscape. In various essays and interviews Atwood has indicated that 11 September impacted the process of her writing of *Oryx and Crake*; she was in an airport in Toronto waiting for a flight when the attacks took place:

> I stopped for about three weeks. Like everybody else, I wanted to see what was going to happen next. But I did not change the book, because what had happened did not have any direct bearing on what I was writing.[19]

Even though Atwood's trilogy is 'not in any way "about" 11 September', nonetheless it is haunted by that event.[20] Crake's plan to eliminate the human species before it renders the planet uninhabitable is, to some extent, a reflection of the 'doctrine of pre-emptive military action' which, according to Annie McClanahan's analysis, partially defines our 'unique […] post-9/11 moment.'[21] Sharon Sutherland and Sarah Swan, who have addressed the relationship between 11 September and Atwood's work, argue that *Oryx and Crake* 'is a truly

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[19] Irene D'Souza and Margaret Atwood, 'Margaret Atwood Asks: Is This The Path We Want To Be On?', *Herizons Magazine*, 2004, para. 43 <http://www.herizons.ca/node/180> [accessed 27 March 2018].

[20] Fiona Tolan, *New Directions: Writing Post 1990* (London: York Press, 2010), p. 20.

[21] Annie McClanahan, 'Future's Shock: Plausibility, Preemption, and the Fiction of 9/11', *Symplokē*, 17.1–2 (2009), 41–62 (p. 42).

Canadian comment on an exaggerated and dystopic America, showing the worst excesses of Canadian fears regarding the American response to 9/11.'[22]

Within Canada, the first decade of the twenty-first century was marked by a shift in Canadian electoral politics, as the Liberal Party went into abeyance, starting with the election in 2004. The Conservative Party government during this period was led by Stephen Harper, who was Prime Minister from 2006 until 2015. The domestic platform of the Harper Government included abandoning the Kyoto Protocols, an attempt to overturn legislation that permitted same-sex marriage, and cutbacks to arts and cultural programmes; the foreign platform included bettering ties with George Bush's administration in the United States of America, a continuation of the War on Terror, and a shift to supporting Israel in the Israel-Palestine conflict. Canadian troops would stay in Afghanistan for nearly ten years, making it the longest war in Canadian history. This represented a reorientation towards the USA, away from Canada's European allies. Particularly significant to foreign critics was the Harper government's reversal of environmental protections. It would be fair to characterise Atwood as opposed to the Harper government; in one piece published in *The Globe and Mail* in 2008, Atwood called for "Anything but a Harper majority". She concluded that piece by arguing:

> People sometimes ask me about my eerie ability to predict the future. Nobody can really predict the future — there are too many curve balls — but we can make informed guesses. Today's informed guess is this. Dear fellow Canadians: If you give the Harper neo-cons a majority government, you'll lose much that you cherish, you'll gain nothing worth having, and you'll never, never forgive yourselves.[23]

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[22] Sharon Sutherland and Sarah Swan, 'Margaret Atwood's Oryx and Crake: Canadian Post-9/11 Worries', in *From Solidarity to Schisms: 9/11 and After in Fiction and Film from Outside the US*, ed. by Cara Cilano (Amsterdam: Rodopi, 2009), pp. 219–36 (p. 220).

[23] Margaret Atwood, 'Anything but a Harper Majority', *The Globe and Mail*, 6 October 2008, para. 15 <https://web.archive.org/web/20090116185034/http://www.theglobeandmail.com/servlet/story/RTGAM.20081006.WAtwood07_PTR/BNStory/politics> [accessed 10 April 2018].

This connects Atwood's "predictive" dystopian sensibility, her ecological concerns, her Canadian nationalism, and her political beliefs, together in a way that sums up her resistance to neo-conservative policy. Two thirds of the *MaddAddam* trilogy were written against this background of rolling back protections for the environment within Canada, as well as a lack of transparency, consultation, and accountability, features that Atwood takes to be hallmarks of good democratic government. Atwood called the Harper administration to account for refusing to release scientific data obtained using Canadian tax-payer funding, a charge she has since levelled against Donald Trump's administration.[24] In general, the tenor of the decade known occasionally as the "noughties" was a sense of disillusionment with the promise of a "new millennium". This can be seen as a parallel to the *fin de siècle* phase of the late nineteenth and early twentieth centuries. A reflection of this, interpolated through the highly scientific mode of Atwood's speculative fiction, can be seen in the *MaddAddam* trilogy.

The trilogy was written across the first decade of the twenty-first century, and, despite the introduction of a minor degree of fictional distance, it engages seriously with the specific concerns of the decade. Consequently my focus has been on both a close reading of the trilogy, and responding to initial concerns highlighted by critics. These critical views, as Umberto Eco suggests, are likely to be 'vague and divided', 'hindered by a lack of perspective', which reflects growing understanding of the works under examination as time goes on.[25] One example of this shift in understanding can be seen in J. Brooks Bouson's trilogy of articles, one written after the publication of each novel: in the final article, she describes her 'need to make sense of the closure of *MaddAddam*, which […] forced [her] to

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[24] Jemimah Steinfeld, 'Novel Lines: An Interview with Margaret Atwood on Current Threats to Free Speech and Why Scientists Need Defending', *Index on Censorship*, 46.2 (2017), 73–75 (p. 74) <https://doi.org/10.1177/0306422017716034>.

[25] Umberto Eco, *How To Write A Thesis*, trans. by Caterina Mongiat Farina and Geoff Farina, Kindle, revised edition (Cambridge, MA: MIT Press, 2015), loc.598-606.

reassess Crake's genocidal act and to take a closer look at the environmental politics of Atwood's eco-apocalyptic trilogy.'[26] I see Bouson's trilogy of articles as exemplary of the work of literary criticism, which creates a "reflective equilibrium" that must be rebalanced as new works, readings, or critical theories are considered. Reflective equilibrium was coined by John Rawls, in the landmark book of political philosophy of the twentieth century, *A Theory of Justice* (1971), though the term describes a mode of thinking with a longer history going back to Plato, and has a more proximate predecessor in the work of Nelson Goodman. Norman Daniels explains the method of reflective equilibrium as follows:

> The method of reflective equilibrium consists in working back and forth among our considered judgments [...] about particular instances or cases, the principles or rules that we believe govern them, and the theoretical considerations that we believe bear on accepting these considered judgments, principles, or rules, revising any of these elements wherever necessary in order to achieve an acceptable coherence among them. The method succeeds and we achieve reflective equilibrium when we arrive at an acceptable coherence among these beliefs. [...] Moreover, in the process we may not only modify prior beliefs but add new beliefs as well.[27]

Though Daniels's explanation is put in terms of principles or rules, this reflects the use of the method within philosophy. In the realm of literary studies, reflective equilibrium offers a model of the work of literary critics: such critics study primary texts; they study the literary and historical context in which the texts are produced and are received; and they considered opinions of other readers and critics; finally, they balance these against one another. Readings from disparate backgrounds, with completely separate arguments, cohere, offering a more-or-

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26 J. Brooks Bouson, 'A "Joke-Filled Romp" through End Times: Radical Environmentalism, Deep Ecology, and Human Extinction in Margaret Atwood's Eco-Apocalyptic MaddAddam Trilogy', *The Journal of Commonwealth Literature*, 51.3 (2016), 341–357 (p. 352), n.1.
27 Norman Daniels, 'Reflective Equilibrium', ed. by Edward N. Zalta, *The Stanford Encyclopedia of Philosophy (Fall 2018 Edition)*, 2018, para. 5 <forthcoming URL = <https://plato.stanford.edu/archives/fall2018/entries/reflective-equilibrium/>.> [accessed 29 August 2018].

less persuasive reading of the text. This reading is always open to revision, as the introduction of new theories or points of view disrupt the balance of the equilibrium.[28] A reading of a text may thus be temporarily stable, but is always evolving. For scholars of Atwood, it seems that the self-described 'nice literary old lady' thus continues to provoke and confound the 'footnote crowd' in equal measure.[29] Atwood has intervened in the reception of her work in essays which describe the circumstances of the trilogy's creation and advocate for reading the trilogy with a particular sensibility. Similarly, the later novels revisit incidents in the earlier novels, casting them in a new light, and characters also reflect on the motivations of other characters in ways that emphasise the message concerning temperance which is at the heart of the trilogy. Bouson's evolving readings of the trilogy reflect these interventions, as well as the work of other scholars developed across the period in which these articles were published.

The two novels Atwood released prior to the turn of the millennium were *The Robber Bride* (1993) and *Alias Grace* (1996), which, together with *The Blind Assassin* (2000) make up an informal group known as the villainess novels. According to Nathalie Cooke, in these novels Atwood is primarily concerned with forcing us

> to question some basic assumptions about the nature of villainy in fiction: first, that villains are not the sympathetic first-person narrators and central protagonists of literary works, and second, that villains, especially those who commit crimes against women, are usually men.[30]

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[28] I have relied on this method extensively in this thesis; I argue that it operates on our understanding of Atwood's term "ustopia", and also that it plays an important role at the developmental aspect of virtue, in which we aim for the virtuous mean but must constantly be actively reassessing that mean.

[29] Margaret Atwood, *Angel Catbird*, ed. by Daniel Chabon, 3 vols (Milwaukee, OR: Dark Horse Books, 2016), I, p. 5; Margaret Atwood, *Second Words: Selected Critical Prose* (Toronto, ON: House of Anansi Press, 1982), pp. 105–6.

[30] Nathalie Cooke, *Margaret Atwood: A Critical Companion* (Westport, CT: Greenwood, 2004), p. 137.

These strands play into the characterisation of Atwoodian Gothic as 'both sinister and jokey'.[31] The powerful and treacherous women in *Cat's Eye* (1988) were likewise characterised in the title of an article by Julie Brown as "Our Ladies of Perpetual Hell".[32] These currents flow into the *MaddAddam* trilogy, both the exploration of villainy, and the sinister and jokey tone. Though I will be considering the trilogy primarily as offering a warning, Atwood has also described it as a 'laugh riot' and a 'joke filled romp through the end of the human race'.[33] '[G]allows humour' is an integral part of the trilogy, and an important feature that stops it from being moralistic and overly didactic.[34]

The three volumes of the *MaddAddam* trilogy — set in or around Boston, Massachusetts in the near-ish future — cover a period of approximately thirty-five years, which can be divided into two phases. In the first phase, a decadent and excessive society which closely resembles the West in the twenty-first century, has wrecked the environment. Democratic governments have ceased to operate, and all law and order functions are carried out by the CorpSeCorps, a private security company, which runs society in the interest of powerful corporations. This fragments society into Compounds, enclaves run by biotechnology companies who hold the dominant position in this society, and pleeblands, chaotic urban sprawls dominated by crime and exploitation. This is characterised by Michael Spiegal as 'neomedievalism', 'a world of simultaneous globalization and fragmentation where the nation-state persists, though weakened'.[35] Some of the protagonists of the trilogy

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[31] Coral Ann Howells, *Margaret Atwood*, 2nd edn (Basingstoke: Palgrave Macmillan, 2005), p. 52.

[32] Julie Brown, 'Our Ladies of Perpetual Hell: Witches and Fantastic Virgins in Margaret Atwood's Cat's Eye', *Journal of the Fantastic in the Arts*, 4.3 (15) (1991), 40–52.

[33] Margaret Atwood, 'Save Our Prison Farms Rally, Kingston, Ontario, June 6', *Margaret Atwood: Year of the Flood*, 2010, para. 4 <https://marg09.wordpress.com/2010/06/07/save-our-prison-farms-rally-kingston-ontario-june-6/> [accessed 21 May 2017]; Sandra Coulson, 'Atwood Gives Her Work Light-Hearted Treatment', *London Free Press* (London, 20 June 2003), section Today <http://www.canoe.com/NewsStand/LondonFreePress/Today/2003/06/20/115301.html> [accessed 6 October 2017].

[34] Bouson, 'Romp', p. 351.

[35] Michael Spiegel, 'Character in a Post-National World: Neomedievalism in Atwood's Oryx and Crake', *Mosaic*, 43.3 (2010), 119–34 (pp. 120–21).

grow up in the Compounds (for instance Jimmy and Crake in *Oryx and Crake*, and Adam and Zeb in *MaddAddam*), and some grow up in the Pleeblands (such as Toby and Amanda in *The Year of the Flood*); only one character, Ren, crosses between these worlds successfully as a young adult. There is little resistance to this state of affairs; in *The Year of the Flood* we see inside one group who refuses to live by the values of the broader society, the God's Gardeners, a syncretic green religious group. They use a calendar that runs from the founding of the God's Gardeners by Adam, through to the Year of the Flood, Year Twenty-five; this calendar gives the chronology for the main action of the trilogy, though the wider plot extends either side of this time frame, approximately five years before Gardener Year Zero and five years after Year Twenty-five.

The second of the two phases begins in the Year of the Flood, Year Twenty-five, when Crake releases JUVE (Jetspeed Ultra Virus Extraordinary), a haemorrhagic virus similar to Ebola, which kills most humans beings. Civilization collapses, and the few human survivors (only one of whom gains immunity; the rest survive by isolation during the epidemic) begin to scratch out a living, alongside the various genetically modified animals that have been unaffected by the virus and which flourish in a world newly free from habitat destruction. These newly created genetic creatures include the Crakers, genetically modified humans who have been redesigned — also by Crake — to reach a stable relationship with their environment, and to avoid the societal problems that blighted the pre-Flood society. The humans who survive meet the Crakers, and begin to integrate the two groups into a single society, alongside another genetically modified species, the Pigoons, with whom they establish treaties. The trilogy concludes with one of the Craker children, Blackbeard, telling stories and recording them in a book that chronicles the history of the nascent community.

The central action of the trilogy occurs in a twenty-five year period, which sees the fall of the extreme capitalist society which is Atwood's vision of our future, the emergence of the Crakers as a new species, and the formation of a new human-Craker-Pigoon community based at the cobb house. I see this time frame as crucial in reading the trilogy for two reasons: it builds on the sense that the Flood is an event that we could expect to happen in our lifetimes, and that the Flood is an event that we can, collectively, choose to control or not. The timeline for the fall of the United States of America to the Republic of Gilead in *The Handmaid's Tale* (1985) has likewise been estimated at five years, suggesting that the potential for radical transformation for the worse is always a possibility.[36] While at school Jimmy is taught by a 'shambling neo-con reject from the heady days of the the legendary dot.com bubble, back in prehistory' who quotes the 1954 film *On the Waterfront*, suggesting that the trilogy takes place within twenty to forty years of the turn of the millennium.[37] In either case, it is central to my reading that these societal shifts are extreme and swift, because it is important to recognise that they reflect real possibilities for us. Whenever the cry of "it couldn't happen here" is raised in interviews, Atwood immediately cuts off the interviewer:

> Having been born in 1939 and come to consciousness during World War II, I
> knew that established orders could vanish overnight. Change could also be as

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[36] Joyce Carol Oates, 'Margaret Atwood's Tale', *The New York Review of Books*, 2006 <http://www.nybooks.com/articles/2006/11/02/margaret-atwoods-tale/> [accessed 16 May 2017].

[37] There is disagreement amongst critics as to Jimmy's age during Year Twenty-Five. According to Coral Ann Howells, 'Margaret Atwood's Dystopian Visions', in *The Cambridge Companion to Margaret Atwood*, ed. by Coral Ann Howells (Cambridge: Cambridge University Press, 2006), p. 163, Jimmy was born in 1996. In Brian Bethune, 'Book Review: Atwood's Oryx and Crake', *The Canadian Encyclopedia*, 2013, para. 7 <http://www.thecanadianencyclopedia.ca/en/article/book-review-atwoods-bookoryx-and-crakebook/> [accessed 12 November 2014], Atwood suggests that Jimmy is born in 2000. However, Marinette Grimbeek, 'Margaret Atwood's Environmentalism: Apocalypse and Satire in the MaddAddam Trilogy' (unpublished PhD, Karlstads universitet, 2017), p. 120 <http://www.diva-portal.org/smash/record.jsf?pid=diva2:1089622> [accessed 22 June 2017] notes that this assertion is unsubstantiated, and argues that it is implausible given references in the text to the first decade of the twenty-first century as in the distant past. Other evidence in the text, such as Snowman's reflections about his childhood, suggest he is at least twenty-five years old - Margaret Atwood, *Oryx And Crake* (London: Virago, 2009), p. 46.

fast as lightning. "It can't happen here" could not be depended on: Anything could happen anywhere, given the circumstances.[38]

Because of the structure of two time-frames divided by the apocalyptic Waterless Flood, all the novels share a structural pattern whereby each is divided into fifteen "chapters", which are further subdivided into sections.[39] These sections are set primarily either before or after the Flood, and, broadly speaking, the chapters alternate between groups of sections set in the past, pre-Flood, and groups of sections set in the present, post-Flood. As each novel builds to a climax, they universally switch to the present. Thus, each novel iterates a looping structure, where the protagonists relive the collapse of society, each time seen from a different viewpoint. The effect of this is to intensify the events of the plot by repeating them, each time adding a new perspective and layer of understanding. By forcing us to reconsider our ideas and feelings about the texts, reading the trilogy creates a process of reflective equilibrium, in which we try to reconcile the different experiences and viewpoints into a balanced view which reflects, I suggest, Atwood's broader critical viewpoint.

Speculative Fiction and Ustopia

You don't write those books because you hope those things will happen. You write those books because they might happen, but you would rather they didn't.[40]

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[38] Margaret Atwood, 'Margaret Atwood on What "The Handmaid's Tale" Means in the Age of Trump', *The New York Times*, 10 March 2017 <https://www.nytimes.com/2017/03/10/books/review/margaret-atwood-handmaids-tale-age-of-trump.html> [accessed 19 May 2017].

[39] *The Political in Margaret Atwood's Fiction: The Writing on the Wall of the Tent* (London: Routledge, 2016) loc.130. This acts as an important connection between the trilogy and Atwood's other novels.

[40] Broadly, *Iconic Author Margaret Atwood on Abortion, Twitter, and Predicting Everything We're Doing Wrong*, 2016 <https://www.youtube.com/watch?v=PPPxR3PcXkQ> [accessed 26 September 2016].

The importance of the genre identification of these novels was highlighted by a disagreement between Atwood and Ursula Le Guin, conducted via articles and in personal debates and culminating in the publication of Atwood's *In Other Worlds: Science Fiction and the Human Imagination* (2011). In 2009, Le Guin reviewed *The Year of the Flood*, also touching on *Oryx and Crake*, in *The Guardian*. The opening paragraph, which caused the stir, reads:

> 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. But Margaret Atwood doesn't want any of her books to be called science fiction. In her recent, brilliant essay collection, *Moving Targets*, she says that everything that happens in her novels is possible and may even have already happened, so they can't be science fiction, which is "fiction in which things happen that are not possible today". This arbitrarily restrictive definition seems designed to protect her novels from being relegated to a genre still shunned by hidebound readers, reviewers and prize-awarders. She doesn't want the literary bigots to shove her into the literary ghetto.[41]

Since then, this disagreement has become a touchstone for studies of science fiction and for studies of Atwood. Some critics have followed Le Guin's position in this excerpt, and seen "Tante Margaret's" contribution to be of little value, portraying Atwood as a 'a silly nit or a snob or a genre traitor for dodging the term'.[42] Gary K. Wolfe, science fiction editor and scholar, made similar comments about protecting the Atwood industry by isolating it from science fiction, and these accusations of mercenary behaviour were in turn echoed by John Clute, another leading science fiction scholar, in his negative review of *Oryx and Crake*.[43] By

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[41] Ursula K. Le Guin, 'Review: The Year of the Flood by Margaret Atwood', *The Guardian*, 2009, para. 1 <http://www.guardian.co.uk/books/2009/aug/29/margaret-atwood-year-of-flood> [accessed 20 October 2012].

[42] Istvan Csicsery-Ronay, 'Tante Margaret Just Wants to Have Fun', *Science Fiction Studies*, 40.2 (2013), 374 (p. 374) <https://doi.org/10.5621/sciefictstud.40.2.0374>; Margaret Atwood, 'The Road to Ustopia', *The Guardian*, 14 October 2011, para. 1 <http://www.guardian.co.uk/books/2011/oct/14/margaret-atwood-road-to-ustopia> [accessed 20 October 2012].

[43] John Clute, 'Croaked', in *Canary Fever*, Kindle (London: Gollancz, 2016), loc.1921.

contrast, a separate group of scholars have read Atwood's writing as engaging with science fiction on a deep level.[44] Nonetheless, Atwood continues to make the argument, having begun in 1985 after the the publication of *The Handmaid's Tale*. Is there more than name-calling to this issue? My suggestion is that there is, and that Atwood's contribution to the discussion is more useful than 'arbitrarily restrictive'.

Atwood's conception of speculative fiction operates on several levels. The least successful is when Atwood suggests (not intentionally) that there are strong borders between genres, and that her fiction remains immovably on one side of these borders; Atwood recognises stringent definitions in this area as a weakness, but nonetheless attempts to build a functional criterion by which science fiction and speculative fiction can be distinguished. This approach doesn't really work: as Atwood herself acknowledges, 'genres may look hard and fast from a distance, but up close it's nailing jelly to a wall.'[45] More successful is reading speculative fiction as tracing a mode of authorial practice, one which emphasises a particular working process. For speculative fiction, this process is fuelled by a demand for sources, for precedent, and corresponds to the boxes of clippings that Atwood uses for research purposes.[46] This resonates with the rules she reportedly set when writing *Alias Grace:* 'when there was a solid fact, she did not alter it, but where there were gaps, she felt free to invent, so that "*Alias Grace* is very much a novel, rather than a documentary".'[47] In turn, this can be

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[44] For instance: Robert Roberts, 'Post-Modernism and Feminist Science Fiction', *Science Fiction Studies*, 17.2 (1990), 136–52 (p. 134) places *The Handmaid's Tale* alongside Le Guin's *Always Coming Home* (1985), Joanna Russ's *The Female Man* (1975), Suzy McKee Charnas's *Motherlines* (1978), and reads it as inverting Poul Anderson's *Virgin Planet* (1959); Schmeink compares Oryx and Crake to Paolo Bacigalpi's *The Windup Girl* (2009); Soraya Copley, 'Rereading Marge Piercy and Margaret Atwood: Eco-Feminist Perspectives on Nature and Technology', *Critical Survey*, 25.2 (2013), 40–56 <https://doi.org/10.3167/cs.2013.250204> compares Atwood's works to Marge Piercy's *Woman on the Edge of Time* (1976).

[45] Margaret Atwood, '*The Handmaid's Tale* and *Oryx and Crake* "In Context"', *PMLA*, 119.3 (2004), 513–17 (p. 513).

[46] See Appendix 4 for a list of some of Atwood's boxes of clippings.

[47] Coral Ann Howells, 'Writing History, from *The Journals of Susanna Moodie* to *The Blind Assassin*', in *Margaret Atwood: The Open Eye*, ed. by John Moss and Tobi Kozakewich (Ottawa, ON: University of Ottawa Press, 2006), pp. 107–20 (p. 114).

connected to the formulation by Gregory Claeys, in his magisterial monograph *Dystopia* (2017), of the "Atwood principle".[48] He uses this principle to distinguish between 'realistic, science based' dystopias, and 'science fiction dystopias', which 'implies considerable distance between "speculative fiction" and "science fiction".' A third, and related, level on which Atwood's definition works is Atwood's tracing of a tradition of science fiction that influenced her writing. This is useful in itself, because Atwood's attempt to make connections to other texts places her speculative fictions in a context that would otherwise be invisible to us. A final level on which the distinction operates, not raised by Atwood but in the critical literature, most prominently by Jennifer Wagner-Lawlor, is that of the "speculative standpoint" deriving from feminist thought, which 'defends art of all kinds, and narrative in particular for their "usefulness" — the practicality even — in imagining and implementing the practice of what I call "transitive imagining", a process of conceptualizing transition and transformation.'[49] Wagner-Lawlor connects this strongly to art as an ethical form, and sees the speculative standpoint as seeking 'to represent more fully the moral dimensions of the ethical character and of political entities'.[50] Consequently, I take Atwood's insistence on the speculative nature of her fiction to have moral and ethical dimensions, and that it offers another point of reflection on the notion of temperance which I will argue is central to the trilogy. Thinking about the trilogy as speculative fiction will thus put the focus on the trilogy as a work of the twenty-first century, rooted in this cultural moment, and responding to urgent questions concerning it.

This debate represents only two genres with which the *MaddAddam* trilogy interacts. Atwood has coined a second term, ustopia, which she uses to trouble the borders of the

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[48] Gregory Claeys, *Dystopia: A Natural History* (Oxford: OUP, 2017), p. 287.
[49] Wagner-Lawlor, pp. 2–3.
[50] Wagner-Lawlor, p. 89.

definition of utopia and dystopia — her neologism is a melding of the two.[51] Her contention in this usage is that utopias and dystopias always carry the seeds of, or else implicitly suggest by their conspicuous absence, their opposites, so that in the midst of George Orwell's brutal dystopia *Nineteen Eighty-Four* (1949) there are both utopian spaces — Atwood's argument is that this is revealed in the comment on language at the end of the novel, which she reads as a post-script to the plot, not as an appendix — and an implied (utopian) argument about the proper structuring of society. In the epigraph to this section, Atwood describes the purposive nature of writing dystopias; to paraphrase, one writes these stories to stop them becoming history. These texts are written, then, as explicit interventions in the political and economic landscape of the early twenty-first century, and their primary audience must, it follows, be individual readers who inhabit that political and economic landscape. These texts are written as warnings about things which could happen to us if we are not careful. To read dystopias in this way is not a bold, deconstructive move, but it is central to Atwood's writing in the *MaddAddam* trilogy. Atwood has long recognised the complexity of criticising a society from within: 'I live in the society; I also put the society inside my books so that you get a box within a box effect.'[52] She also notes that 'when the large social issues are very large indeed … the characters will act within — and be acted upon by — everything that surrounds them.'[53] In the ustopian mode, the emphasis is very much on the social, economic, and systemic aspects of the novels — following from Tom Moylan, we can see these as deriving

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[51] In true Atwoodian fashion, it can also be read as us-topia, suggesting that for "us" society will always be a combination of eutopia and dystopia. It therefore has a similar force to Sartre's 'Hell is other people' or the *memento mori et in Arcadia ego*.

[52] Margaret Kaminski, 'Preserving Mythologies', in *Margaret Atwood: Conversations*, ed. by Earl G. Ingersoll (London: Virago, 1992), p. 28.

[53] Rebecca Mead, 'Margaret Atwood, the Prophet of Dystopia', *The New Yorker*, 2017 <http://www.newyorker.com/magazine/2017/04/17/margaret-atwood-the-prophet-of-dystopia> [accessed 12 April 2017].

from the ability of dystopias 'to reflect upon the causes of social and ecological evil as systemic'.[54]

Beyond speculative fiction/science fiction and utopia/dystopia/ustopia, Atwood critics have identified a large number of other possible intertexts and genre discourses at play in the trilogy, so much so that it 'constitutes an overview of literature and culture as well as a critique of ancient and modern values and modes of being.'[55] Apart from the links to Virginia Woolf's *To The Lighthouse* (1927) and Jonathan Swift's *Gulliver's Travels* (1726) announced by their use as epigraphs, Debrah Raschke sees connections to William Shakespeare's *The Tempest* (circa 1610), T.S. Eliot's *The Waste Land* (1922), and Samuel Taylor Coleridge's "Rime of the Ancient Mariner" (1798).[56] Indeed, making large claims for the trilogy which it would be difficult to substantiate, she declares 'I dare say that Atwood's trilogy is *The Waste Land* of the twenty-first century.'[57] In a broader context, Reingard Nischik suggests that 'the wide range of genres in which she [Atwood] has been productive' is one of the most important aspects of her career.[58] The *MaddAddam* trilogy is a particular site for genre border crossing, with J. Brooks Bouson describing it as functioning as

> a complex, and game-like, multi-layered narrative in which Atwood, in her characteristic way, makes use of contemporary popular fictional forms, including not only the dystopian novel but also the castaway-survivor narrative […]; the detective and action-thriller novel […]; and the romance story.[59]

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[54] Tom Moylan, *Scraps of the Untainted Sky* (Oxford: Westview Press, 2000), p. xii.

[55] Sharon Rose Wilson, 'Frankenstein's Gaze and Atwood's Sexual Politics in Oryx and Crake', in *Margaret Atwood: The Open Eye*, ed. by John Moss and Tobi Kozakewich (Ottawa, ON: University of Ottawa Press, 2006), pp. 397–406 (p. 399).

[56] Debrah Raschke, 'Margaret Atwood's MaddAddam Trilogy: Postmodernism, Apocalypse, and Rapture', *Studies in Canadian Literature/Études En Littérature Canadienne*, 39.2 (2014), p. 38.

[57] Raschke, p. 39.

[58] Reingard M. Nischik, *Engendering Genre: The Works of Margaret Atwood* (Ottawa, ON: University of Ottawa Press, 2009), p. 1; see also Coral Ann Howells, 'Transgressing Genre: A Generic Approach to Margaret Atwood's Novels', in *Margaret Atwood: Works & Impact*, ed. by Reingard M. Nischik (Toronto, ON: House of Anansi Press, 2002), pp. 139–56 for a closer study of a few of the genres with which Atwood has worked.

Commenting on Atwood's proclivity for utilising (sometimes unexpected) popular forms,

Howells reads this statement from Atwood as suggestive: 'I find popular forms interesting

because they are collective mythology — a wonderful compost that contains everything. It

contains the cultural patterns of the society, and what novels are using are the themes of their

culture.'[60] Ultimately, Nathalie Cooke believes, Atwood's genre affiliation will always be to

the Gothic: 'It certainly contains elements of threat: characters with questionable morals or a

loose grip on reality; nightmarish settings; ghostly apparitions; or, perhaps most frighteningly

of all, a bleak vision of our own society's future.'[61] Gothic scholars have done significant

work on Atwood, and recent turns to the eco-Gothic have further implications for interpreting

the trilogy.[62] In any case, the Gothic is an important precursor to genre fiction as a whole,

cited by Brian Aldiss as the progenitor of science fiction, and by Jackie Shead as a formative

influence on the thriller.[63] A final genre characterisation that interacts with the reception of

the trilogy is another set of genre protocols suggested by Atwood:

> I'd say instead that *Oryx and Crake* is […] an adventure romance — that is,
> the hero goes on a quest — coupled with a Menippean satire, the literary form
> that deals in intellectual obsession. The Laputa or floating island portion of
> *Gulliver's Travels* is one of these. So are the Watson-Crick Institute chapters
> of *Oryx and Crake*.[64]

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59   J. Brooks Bouson, '"It's Game Over Forever": Atwood's Satiric Vision of a Bioengineered
     Posthuman Future in Oryx and Crake', *The Journal of Commonwealth Literature*, 39 (2004), 139–56
     (p. 141).
60   Howells, 'True Trash', p. 1.
61   Nathalie Cooke, p. 11.
62   Gina Wisker, 'Imagining Beyond Extinctathon: Indigenous Knowledge, Survival, Speculation –
     Margaret Atwood's and Ann Patchett's Eco-Gothic', *Contemporary Women's Writing*, 2017, p. 2
     <https://doi.org/10.1093/cwwrit/vpx019>.
63   Brian W. Aldiss, *Trillion Year Spree: The History of Science Fiction* (London: Gollancz, 1986), p. 25;
     Jackie Shead, *Margaret Atwood: Crime Fiction Writer: The Reworking of a Popular Genre*, Kindle
     (Abingdon: Routledge, 2016), p. 11.
64   Margaret Atwood, 'The Handmaid's Tale and Oryx and Crake "In Context"', p. 517.

All of this is to suggest that the genre picture in the trilogy is complex, and while I take Atwood's claims to write speculative fiction seriously, it is important to see this claim as one way of reading the texts among many.

What does Atwood's definition of speculative fiction involve, and why is it so contentious? In the essay to which Le Guin refers — actually a speech written in 1989 and which remained unpublished until collected in *Moving Targets* (2004) — Atwood articulated her concerns about the genre labelling of *The Handmaid's Tale*. She writes that, because *The Handmaid's Tale* was set in the future, it has

> conned some people into thinking it is science fiction, which, to my mind, it is not. I define science fiction as fiction in which things happen that are not possible for today — that depend, for instance, on advanced space travel, time travel, the discovery of green monsters on other planets or galaxies, or which contain various technologies not yet developed. But in *The Handmaid's Tale*, nothing happens that the human race has not already done at some time in the past, or which it is not doing now, perhaps in other countries, or for which it has not yet developed the technology.[65]

Addressing the question many years later, Atwood restated this basic premise by providing literary antecedents for the two related genres:

> 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 cannisters — things that could not possibly happen — whereas, for me, "speculative fiction" means plots that descend from Jules Verne's books about submarines and balloon travel and such — things that really could happen but just hadn't when the authors wrote the books.[66]

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[65] Margaret Atwood, 'Writing Utopia' in *Moving Targets: Writing with Intent 1982-2004* (Toronto, ON: House of Anansi Press, 2005), p. 102.

[66] Margaret Atwood, *In Other Worlds: SF and the Human Imagination* (London: Virago, 2011), p. 6.

It should be noted that tracing sf back to an ur-text has been attempted a number of times.[67]

Favourite origin points include, but are not limited to: Hugo Gernsback's editorial to *Wonder Stories* (1923), Edgar Allan Poe's *The Narrative of Arthur Gordon Pym of Nantucket* (1838), Mary Shelley's *Frankenstein* (1818), Johannes Kepler's *Somnium* (1608, published 1634), Thomas More's *Utopia* (1515), and a whole variety of extraordinary voyages in myth and story going back to the Ancient Greeks (termed the long history of sf).[68] Atwood proposes not one point of origin, but two parallel traditions: one originating in the exuberant futurism and adventure of H.G. Wells's scientific romances, and the other, the tradition of 'submarines and balloon travel and such', she traces to the works of Jules Verne. Her own works fall into the second of these traditions, and she claims that other dystopias, such as those of Yevgeny Zamyatin, Aldous Huxley, and Orwell, similarly fall into this second tradition. That Atwood sides with Verne is striking, partly because of her own passionate interest in Wells and his fiction; in her discussion in *Other Worlds*, she refers numerous times to a number of Wells's novels, but mentions only two Verne titles (*Twenty Thousand Leagues Under The Sea*, in French: *Vingt mille lieues sous les mers: Tour du monde sous-marin*, published 1860, and *Journey to the Centre of the Earth*, in French: *Voyage au centre de la Terre*, published 1864) and does not offer discussion of them at length. Moreover, she describes *Oryx and Crake* as an adventure romance and a Menippean satire, both of which are terms that better suit Wells

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[67] From this point onwards, I have followed the custom within science fiction criticism of using sf as the appropriate abbreviation for science fiction; this is preferred to sci-fi, which is understood to be dismissive. An additional consideration for sf scholars is that sf covers uses of alternative terms like speculative fiction – which has a history that pre-dates Atwood's usage – or slipstream fiction. As an indication of the broadness of the term, Judith Merril, an influential figure in sf criticism, once half-jokingly suggested that what 's-f really stands for is Space Fish' in *The Merril Theory of Lit'ry Criticism: Judith Merril's Nonfiction*, ed. by Ritch Calvin, Kindle (Seattle, WA: Aqueduct Press, 2016), loc.121.

[68] John Clute, Brian M. Stableford, and Peter Nicholls, 'Definitions of Science Fiction', ed. by John Clute, Peter Nicholls, and Graham Sleight, *The Encyclopedia of Science Fiction* (London: Gollancz, 2015) <http://www.sf-encyclopedia.com/entry/definitions_of_sf> [accessed 24 February 2017]; Paul Kincaid, 'On the Origins of Genre', *Extrapolation*, 44.4 (2003), 13–21 (p. 13); Aldiss, p. 25; Adam Roberts, *Science Fiction*, 2nd edn. (London: Routledge, 2006), p. 38; Kincaid, p. 13; Adam Roberts, *The History of Science Fiction*, Second edition, Kindle (London: Palgrave, 2016).

than Verne. I shall be looking at Atwood's views on *The Island of Doctor Moreau* (1896) more closely in Chapter Four. Roger Luckhurst's wide-ranging and insightful cultural history — in which he argues that 'a historicist definition produces a broader, more inclusive definition of sf than a formalist or conceptual one' — represents the most sophisticated and the most successful attempt to follow sf back to its sources in this way.[69]

However, Atwood's historical account is troubled by two problems; first is the historic use of the term speculative fiction, which Atwood does not mention in her own attempt at a definition, an oversight noted by Clute in his review of *In Other Worlds:*

> "Speculative fiction" is a term long-used in SF, and it is significant that Atwood does not cite, even in passing, either Robert A. Heinlein's definition from 1947 or Judith Merril's from 1966, even to tell them they're wrong, for what she means is not what they — or anyone else to my knowledge — have meant by the term.[70]

"Speculative fiction" is arguably older than the term science fiction, the former having its first recorded use in 1899, the general use of the latter being dated to the 1930s.[71] The second problem with Atwood's definition is the close intertwining of the two traditions she identifies, which raises questions about their distinctness. Karma Waltonen conducted a

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[69] Roger Luckhurst, *Science Fiction* (Cambridge: Polity Press, 2005), p. 11; the major formalist or conceptual approaches are the Wittgensteinian approach defended by Kincaid; the 'communities of practice' definition presented by John Rieder, 'On Defining SF, or Not: Genre Theory, SF, and History', *Science Fiction Studies*, 37 (2010), 191–209; and the 'cognitive estrangement' definition created by Darko Suvin in *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven, CT: Yale University Press, 1977); and 'Estrangement and Cognition', *Strange Horizons*, 2014 <http://strangehorizons.com/non-fiction/articles/estrangement-and-cognition/> [accessed 13 May 2017].

[70] John Clute, 'Margaret Atwood and the S and F Words', *Los Angeles Review of Books*, 27 November 2011 <https://lareviewofbooks.org/article/margaret-atwood-and-the-s-and-f-words/> [accessed 2 April 2018].

[71] Peter Nicholls and David Langford, 'Speculative Fiction', ed. by John Clute, Peter Nicholls, and Graham Sleight, *The Encyclopedia of Science Fiction* (London: Gollancz, 2015) <http://www.sf-encyclopedia.com/entry/speculative_fiction> [accessed 24 February 2017]. Summaries of debates about the dating of the term science fiction can be found in the first chapters of Roberts, *Science Fiction*. and *Science Fiction: A Literary History*, ed. by Roger Luckhurst (London: The British Library, 2017).

reader response exercise with her students concerning *Oryx and Crake* which reveals an interesting aspect of this debate; she wanted to determine if many readers shared her ethical reading of the novel, and specifically if, by reading the novel her students would become more active readers of other novels and of other texts and situations. One of the groups that she studied was a group of students taking a Science Fiction and Speculative Fiction class; of all the students that she taught while gathering data for the experiment, these students appear in her analysis as the most capable of understanding the science fiction / speculative fiction divide, but were also noted as being the students who responded better to a number of other important literary considerations: for instance they

> saw the larger consumer culture and the disintegration of a central government
> as just as threatening as what some students in other classes called "mad
> scientists". That is, they looked at the socio-political environment that enabled
> the "mad scientists" rather than just the scientists themselves.[72]

Additionally, one student in this group was the only student in Waltonen's study to evince any interest in the novel's epigraphs. As reported by Waltonen, it seems that the students who had studied sf texts before studying *Oryx and Crake* were more successful at understanding the complexities of the text; one possible and plausible reason for this might be that *Oryx and Crake* does indeed share a great deal with sf texts, such that some knowledge of the "megatext" or the reading protocols involved improves the ability of readers to understand it.

Atwood's account may describe the earlier phases of sf history accurately, but the distinction between, for instance, space travel and deep-sea submersibles has been increasingly ignored in contemporary sf practice, eroding the relevance of a distinction. Describing sf on the most general level, Brooks Landon calls sf the 'literature of change',

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[72] Karma Waltonen, "'Atwood's View ... Is Crazy, but Very Possible": Students Reading *Oryx and Crake*', *Margaret Atwood Studies Journal*, 5.2 (2012), 16–35 (p. 27); the whole paper is worth reading as an extended exercise in the close reading of *Oryx and Crake*, and for the fascinating misprisions that it collects. It also provides data that corroborates my view that literature, and these texts in particular, are capable of rousing moral responses.

'the kind of literature that most explicitly and self-consciously takes change as its subject and teleology', and Paul Alkon praises the best of sf as a 'distinctly self-conscious and self-referential genre', one which 'invites readers to appreciate the clever ways in which texts may allude to one another, to themselves, and to acts of reading.'[73] However, Atwood's historical account is rooted in her unfinished PhD, which considered a category of works she called the "metaphysical romance" in English novelists, and this is a strong presence behind Atwood's thinking in *In Other Worlds*.[74] These English novelists included H. Rider Haggard and J.R.R. Tolkien, but also '*A Crystal Age*, by W.H. Hudson, and M.P. Shiel's *The Purple Cloud*, and Herbert Read's peculiar *The Green Child*.'[75] What is particularly valuable about Atwood's use of the term speculative fiction in this regard, is not that it provides a necessary and sufficient condition for distinguishing one branch from the other, but that it traces a number of literary antecedents that Atwood sees as influences on her work, or as doing the same kind of work that her trilogy is doing.

To summarise this approach, we can think of speculative fiction as that which happens 'twenty minutes into the future', and science fiction as 'talking squids in outer space'.[76] Atwood connects her objection to the genre label to the desires of her audience: 'I didn't want to raise people's hopes. I did not wish to promise — for instance — the talking squid of Saturn if I couldn't deliver them.'[77] "Talking squids in outer space" has, perhaps rightly, been fixed on by defenders of sf as unfair, and was met with some hostility by sf authors, editors,

[73] Brooks Landon, *Science Fiction after 1900: From the Steam Man to the Stars* (London: Routledge, 2002), p. xii; Paul K. Alkon, *Science Fiction before 1900: Imagination Discovers Technology* (London: Routledge, 2002), p. xii.

[74] For an extended discussion of Atwood's thesis and the material it contains, especially as germane to this issue, see Shannon Hengen, '"Metaphysical Romance": Atwood's PhD Thesis and "The Handmaid's Tale"', *Science Fiction Studies*, 18.1 (1991), 154–56.

[75] Margaret Atwood, '*The Handmaid's Tale* and *Oryx and Crake* "In Context"', p. 514.

[76] Tom Moylan, '"Look into the Dark": On Dystopia and the Novum', in *Learning from Other Worlds: Estrangement, Cognition and the Politics of Science Fiction and Utopia*, ed. by Patrick Parrinder (Liverpool: Liverpool University Press, 2000), p. 66; Atwood quoted in David Langford, 'Bits and Pieces', *Ansible*, 2003 <http://ansible.uk/sfx/sfx107.html> [accessed 21 February 2017].

[77] Margaret Atwood, '*The Handmaid's Tale* and *Oryx and Crake* "In Context"', p. 513.

critics, and fans. Sf author Vonda McIntyre's response is perhaps the most in keeping with the sense in which it was used by Atwood, namely, jokingly: she created the website Talking Squids In Outer Space which hosts a bibliography of sf works with a significant presence of squids.[78] Roberts describes the broader defensive response from the sf community:

> [There is a] tendency in some of the shires of SFland — my own home country — to sneer at [Atwood] because she hasn't pronounced the Fan Shibboleths with enough fervor. But this strikes me as not only the least interesting way of relating to Atwood; it seems to me to demean SF Fandom more generally. […] [I]t is clear that she is as artistically committed to SF as to any other mode; and it would be small-minded to deny that she has written some of the most enduring SF novels of the last three decades.[79]

Patrick Parrinder argues that what he calls 'the institution of science fiction studies' has become integral to the overall reception of sf, and that 'SF still craves recognition and wants, above all, to be taken seriously'; if we accept this reading, it is easy to see how the institution may be vituperative in defending its seriousness, and how Atwood, with her characteristically humorous approach, lacking in deference, may have struck a nerve.[80] The argument, then, is that speculative fiction is writing about the near future specifically to warn us about what we are doing right now. However, this is a claim that is also made repeatedly by science fiction writers; Gwyneth Jones commented, at a roundtable discussion at the London Science Fiction Research Community's 2017 conference, that "sf is always about the present".[81] The difference between Atwood's and Jones's claims, as I have discussed them above, is to do with *how* these genres are about the present. In the case of sf, it is about the present shown at

[78] Vonda McIntyre, 'Talking Squids in Outer Space', *Talking Squids In Outer Space*, 2005 <http://www.talkingsquidsinouterspace.com/> [accessed 21 February 2017].

[79] Adam Roberts, '*Maddaddam* by Margaret Atwood', *Strange Horizons*, 2013 <http://strangehorizons.com/non-fiction/reviews/maddaddam-by-margaret-atwood/> [accessed 3 September 2017].

[80] Patrick Parrinder, *Learning from Other Worlds: Estrangement, Cognition and the Politics of Science Fiction and Utopia* (Liverpool: Liverpool University Press, 2000), p. 1.

[81] Gwyneth Jones, Roundtable Discussion, "Organic Systems: Environments, Bodies, and Cultures in Science Fiction", London, 2017.

a distance through imaginative devices; in the case of speculative fiction, it is about the present in that it describes technologies and trends which are already present — though readers are often shocked when they discover that these things exist.[82] "Speculative fiction" highlights the narrative proximity to us, which gives them an urgency lacking in the alterity of sf.

Atwood's emphasis on "things that can happen" suggests that her texts are less imaginative and more realist than is commonly recognised, and this is the main reason that Atwood reiterates the distinction. If we stop thinking about the distinction between speculative fiction and sf in terms of what a genre "should be", and instead look at them as descriptive terms, other features emerge. In numerous interviews Atwood has stood by the quality of her research and its importance for her fiction, and the archives of her papers, held at the Thomas Fisher Rare Book Library at the University of Toronto, contain numerous boxes full of 'sheaves of newspaper clippings': 'Clip-clippety-clip, out of the newspaper I clipped things', she chanted to one interviewer.[83] The library catalogue currently lists the Atwood papers as 83 metres in extent, which gives a sense of the scale of the labour involved in Atwood's writing process. Barzilai's essay on Atwood's short speculative fiction story,

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[82] Waltonen, p. 27 reports that her readers did not know about sex trafficking or GMO crops or animals, and found their depiction, at least initially, 'unbelievable'.

[83] Some recent examples of interviews which foreground this stress on the historicity and plausibility of her fiction include: Charlotte Higgins, 'Margaret Atwood: "All Dystopias Are Telling You Is to Make Sure You've Got a Lot of Canned Goods and a Gun"', *The Guardian*, 15 October 2016, section Books <https://www.theguardian.com/books/2016/oct/15/margaret-atwood-interview-english-pen-pinter-prize> [accessed 7 January 2017]; Isabella Biedenharn, 'Margaret Atwood: "I'm Either Kindly Granny or Wicked Witch"', *Entertainment Weekly's EW.Com*, 2015 <http://www.ew.com/article/2015/08/12/margaret-atwood-interview> [accessed 27 November 2016]; Emma Brockes, 'Margaret Atwood: "I Have a Big Following among the Biogeeks. 'Finally! Someone Understands Us!'"', *The Guardian*, 24 August 2013, section Books <http://www.theguardian.com/books/2013/aug/24/margaret-atwood-interview> [accessed 3 September 2014]; Paul Gallagher, 'Interview: Margaret Atwood on New Novel *MaddAddam'*, *The List*, 2013 <http://www.list.co.uk/article/54764-interview-margaret-atwood-on-new-novel-maddaddam/> [accessed 2 September 2014].

"Thylacine Ragout" collected in *The Tent* (2006), investigates extensively how well-documented even the briefest of Atwood's pieces are:

> But the sad fact, as already indicated, is that almost nothing in this story is untrue. Everything it describes has already happened or could be happening right now. "Thylacine Ragout" is a transposition of real animals, people, and events into a form of narrative fiction.[84]

Barzilai's article details her research on the historical background for the story. Prompted by her mention of a folder in the Atwood papers labelled "Threatened Species, 2000-2003", I looked at the Finding Aids for the collection for research material on *Oryx and Crake*. These list folders of clippings on the following suggestive topics, among many others: slavery in the late twentieth century; stem cell research; small pox; threatened species.[85] According to Lorraine York, these sources were likely gathered in part by Surya Bhattacharya — a journalism graduate Atwood hired to assist with ensuring proper coverage of the topics — but primarily by Atwood herself; 'I didn't do research as such. I knew quite a bit of it already.'[86] *The Year of the Flood* website presents a reading list of book-length source material which is said to have "influenced the founders of the God's Gardeners in their youth", which may be understood as influencing Atwood during the writing process. A brief overview of these shows non-fiction titles on religion, composting, the dangers of climate change, urban survival guides, the threat of global epidemics, and genetic engineering; and Fred Bodsworth's novel *The Last of the Curlews* (1955) about the historic extinction of *Numenius borealis*, the Eskimo or northern curlew. Atwood's refrain of 'things that really could happen but just hadn't when the authors wrote the books' represents an attempt to bring this research

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[84] Shuli Barzilai, 'Unfabulating a Fable, or Two Readings of "Thylacine Ragout"', in *Once upon a Time: Myth, Fairy Tales and Legends in Margaret Atwood's Writings*, ed. by Sarah Appleton (Newcastle upon Tyne: Cambridge Scholars Publishing, 2008), pp. 127–50 (p. 130).
[85] See Appendix 4 for a fuller list of folders, many of which are equally suggestive.
[86] Atwood quoted in Lorraine York, *Margaret Atwood and the Labour of Literary Celebrity* (Toronto, ON: University of Toronto Press, 2013), p. 118.

to the fore, to reflect, as fully as possible, the nature of the trilogy as an act of witness to things as they are.[87]

Atwood troubles the reception of her texts as historical by placing the trilogy in the context of the utopian impulse. Debates concerning sub-categories of utopia continue to rage, but one set of definitions, outlined by Lyman Tower Sargent has come to be widely accepted as the most productive, and his article "The Three Faces of Utopianism Revisited" defines the relevant terms in ways I shall adopt for the purposes of this thesis. Sargent defines 'utopianism', broadly conceived, as 'social dreaming — the dreams and nightmares that concern the ways in which groups of people arrange their lives and which usually envision a radically different society than the one in which the dreamers live.'[88] This can take very different forms, but speaking generally, utopia is a base level term, which describes any specific example of literary utopianism, and terms such as 'eutopia' or 'dystopia' inflect what the author intended the contemporaneous viewer to understand by that particular social dream. Eutopia is a utopia better than the writer's current society, and dystopia is a society markedly worse than the writer's current society. Sargent sounds a note of caution however:

> *Perfect*, *perfection*, and their variants are freely used by scholars in defining utopias. They should not be. First, there are in fact very few eutopias that present societies that the author believes to be perfect. Perfection is the exception not the norm. Second, opponents of utopianism use the label *perfect* as a political weapon to justify their opposition. They argue that a perfect society can only be achieved by force; thus, utopianism is said to lead to totalitarianism and the use of force and violence against the people.[89]

Atwood shares this concern about perfection, which I will raise in Chapter Two on transhumanism. Her coining of "ustopia" is intended to recognise that there cannot be a

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[87] Margaret Atwood, *Other*, p. 6. I discuss the importance of witnessing in Chapter 5.
[88] Lyman Tower Sargent, 'The Three Faces of Utopianism Revisited', *Utopian Studies*, 5.1 (1994), 1–37 (p. 3).
[89] Sargent, p. 9.

perfect society, and that, in fact, 'we have a much better idea about how to make hell on earth than we do about how to make heaven'.[90] She further highlights how ustopia is dependent on the concept of a planned society; this troubles the application of the term to the *MaddAddam* trilogy where one of the problems is that there is precisely no plan.[91] The corporations fight amongst themselves for dominance, and the CorpSeCorps keep the system running to their advantage, but the pre-Flood society is not a planned society. It is the post-apocalyptic post-Flood world which is brought about by design, and can therefore be described as a planned society. Nonetheless, the inherent flexibility of a newly coined term may cover both pre- and post-Flood worlds. Some critics refer to both worlds as dystopias, but a more accurate way to describe them would be as a dystopia collapsing into a post-apocalyptic narrative; in the sense that an apocalypse always implies a new beginning, the trilogy can also be labelled apocalyptic.[92]

Atwood specifies the definition as follows: '*Ustopia* is a word I made up by combining utopia and dystopia — the imagined perfect society and its opposite — because, in my view, each contains a latent version of the other.'[93] How we unpick Atwood's contribution in light of Sargent's work is evidently complicated. I am unwilling to jettison Atwood's neologism, as I think it expresses what is a central truth to the *MaddAddam* trilogy — even as Atwood is showing us a nightmare, she retains hope that we can extract ourselves from our predicament. Wagner-Lawlor captures this sense that speculative fictions can function in this way when

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[90] Atwood quoted in Wagner-Lawlor, p. 88.

[91] Margaret Atwood, '*The Handmaid's Tale:* A Feminist Dystopia ?', in *Lire Margaret Atwood : The Handmaid's Tale*, ed. by Marta Dvorak, Interférences (Rennes: Presses universitaires de Rennes, 1999), pp. 17–30 (para. 4) <http://books.openedition.org/pur/30511> [accessed 6 April 2018].

[92] For further discussion on this aspect of apocalypse, see Karen J. Renner, 'The Appeal of the Apocalypse', *Lit: Literature Interpretation Theory*, 23.3 (2012), 203–11 (p. 204); Catherine Keller, *Apocalypse Now and Then: A Feminist Guide to the End of the World* (Boston, MA: Beacon Press, 1996); James Berger, *After The End: Representations of the Post-Apocalypse* (Minneapolis, MN: University of Minnesota Press, 1999); Andrew Tate, *Apocalyptic Fiction* (London: Bloomsbury, 2017).

[93] Margaret Atwood, *Other*, p. 66.

she writes that they 'have proven themselves powerful formal tools for revis(ion)ing the shape of history and revaluing the role of imagination.'[94] Of the definitions in Sargent's table, the closest term to what I understand the *MaddAddam* trilogy to be doing — namely, warning us to change our ways via the medium of imaginative fiction — is utopian satire, which is to be interpreted as 'criticism of [our] contemporary society'. Atwood is indeed a formidable satirist, and the trilogy uses satirical figures and gestures regularly, for instance in the depiction of the Crakers, about which I will say more in Chapter Two on transhumanism. But its criticisms are not only framed in satirical hyperbole, and the trilogy cannot be reduced to purely satirical aims — the implied eutopianism points to other issues. Ustopia requires us to develop a reflective equilibrium across the texts, seeing features of the text as often both eutopian and dystopian, or each implying a 'latent version of the other'. Consequently, I will use Atwood's preferred 'ustopia' to describe these texts when addressing them from a utopian perspective, but I will do so with the caveat that, wherever the term is used, this balance of reflective equilibrium is implied.

In terms of interpreting the *MaddAddam* trilogy through genre protocols, it is clear that the trilogy is freighted with a wide array of genre histories, utilising those which seem appropriate to the moment. As I have suggested, this partially militates against reading the trilogy as a seamless whole, because different protocols come to dominate in the different novels, which partly accounts for their changes in tone and emphasis. Seen thus, Atwood's formulation of speculative fiction posits a closely-linked genre family.[95] Under a certain light or from a certain perspective, a text might look more like speculative fiction, or more like an ustopia, or more like sf. The overlapping, criss-crossing nature of the similarities will make it

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94   Wagner-Lawlor, p. 2.
95   In doing so, I follow Kincaid's model, itself derived from Ludwig Wittgenstein, *Philosophical Investigations*, trans. by G. E. M. Anscombe, 50th Anniversary (Oxford: Blackwell, 2009) especially sections 66 and 67.

practically impossible to lock texts into one identity, but it will still enable us to see resemblances between texts and other texts, and to trace influences down the family line. This approach allows us to capture both the formal elements that Atwood argues for as part of her definitions of speculative fiction and ustopia, additionally recognising her research and writing practices which underlie those genre characterisations, whilst maintaining a familial relation to other genre protocols which pervade the texts. It is on this understanding that I will operate in what follows.

It has been a long standing practice of Atwood's to attribute her copyright to an alternate persona, the company O.W. Toad Ltd, an anagram of her last name, which she incorporated in 1976.[96] This, and other aspects of her commercial practice, are explored in Chapter 5. But at the outset of the thesis, I want to briefly note the following section from *Oryx and Crake*:

> [Jimmy] compiled lists of old words too — words of a precision and suggestiveness that no longer had a meaningful application in today's world, or *toady's world*, as Jimmy sometimes deliberately misspelled it on his term papers. (*Typo*, the profs would note, which showed how alert they were.)[97]

Jimmy's creativity with words is one of his defining characteristics as 'the ever-ready-song-and-dance man', constantly performing for various audiences.[98] This creates obvious parallels with Atwood herself, a writer who revels in neologism, punning, and wordplay. To my mind, we cannot read this 'typo' — as the inept professors of the underfunded and undefended Martha Graham Academy term it — as simply a joke, but rather as a claim of ownership by O.W. Toad. The world in these texts is *toady's world*, and this trilogy is her anagrammatic view of our society as it is today. Nothing that we see in the trilogy is included carelessly or by chance, and the various genre claims that cast such different lights onto the novels need to

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[96] York, *Labour*, p. 7.
[97] Margaret Atwood, *Oryx*, p. 230.
[98] Margaret Atwood, *Oryx*, p. 230.

be brought into reflective equilibrium, where intuitions from the different genre claims can feed into a temporarily stable understanding of the text — and this understanding can provide the basis for reading the text as a practical, ethical intervention. Indeed, the anagram is a fertile metaphor for Atwood's insistence that these texts are not of the same imaginative dimension as other sf texts, but are instead an admixture of human history and our present cast 'at odds' into the future. After puzzling awkwardly at Atwood's exotic and bizarre world, at newsstands and bookstores exploding for no reason as described in the epigraph to this chapter, we can begin to see that there is an ethical purpose to these speculations, which she invites us to put straight.

Virtue Ethics

> "In ancient days," said Atwood, "people could barely count, but almost everyone had their culture's stories memorized." […] From these stories, political, religious, scientific and artistic views of the world were formed. "Science can tell us what we are - molecules and carbon," she said, "but who we are is another question altogether - and that's for art." Art is the expression which brings the unexplainable to the people. "We are all a part of humankind," says Atwood, "and these values live in art."[99]

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> My own view is that my novel is not a treatise at all, but a novel; that it concerns characters with certain backgrounds and habits of mind placed in a particular environment and reacting to it in their own ways; that it does not exist for the sake of making a statement but to tell a story; that storytelling is a human activity, and valuable in its own right.[100]

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[99] Barnabas, 'Margaret Atwood: The Best and Worst of Human Values in a Changing World', *SLUG Magazine*, 2015, para. 7 <http://www.slugmag.com/articles/9781/Margaret-Atwood-The-Best-and-Worst-of-Human-Values-in-a-Changing-World.html> [accessed 29 April 2015].

[100] Margaret Atwood, 'A Reply', *Signs*, 2.2 (1976), 340–41 (p. 340).

My approach builds on two compatible sources for thinking about ethics in literature: virtue ethics, a branch of normative ethics within analytic philosophy, and ethical criticism, which is a vein of literary criticism which focuses on literature as representing 'a kind of moral thinking in its own right — a kind necessary to our moral understanding, and which moral philosophy has spoken of, but cannot itself supply.'[101] These are historically closely related, and both attempt to connect the narratives we read, in the entirety of their complexity, to the way in which we live our lives. I see this as being of the highest importance to Atwood's writing, and particularly to the project of the *MaddAddam* trilogy, and in this thesis I hope to contribute to the ongoing work of interpreting the ethics of Atwood's works. Many critics refer to Atwood as an ethical writer in the course of their arguments, and the primary investigation into Atwood's ethics has been from within a feminist ethics of care.[102] But it is important, as the epigraph to this section suggests, not to lose sight of Atwood's insistence that the novel is not didactic like a treatise; the primary advantage of turning to virtue ethics to investigate Atwood's text is that it does not require treatise-like arguments which come to some ultimate conclusion. Instead, virtue ethics is interested in 'characters with certain backgrounds and habits of mind', who exist in 'particular environment[s]', and respond in their own ways; moreover, virtue ethicists such as Nussbaum argue that the only way to fully grasp the ethical value of literature is to read it as literature, acknowledging its complexities, including its history, form, stylistics, voices, genre, allusions, and so on — to do so is to insist

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[101] S. L. Goldberg, *Agents and Lives: Moral Thinking in Literature* (Cambridge: Cambridge University Press, 1993), p. i.

[102] See Amelia Defalco, '*MaddAddam*, Biocapitalism, and Affective Things', *Contemporary Women's Writing*, 11.3 (2017), 432–51 <https://doi.org/10.1093/cww/vpx008>; and *Imagining Care: Responsibility, Dependency, and Canadian Literature*, Kindle (Toronto, ON: University of Toronto Press, 2016). For broader discussion on the ethics of care, see Carol Gilligan, *In A Different Voice: Psychological Theory and Women's Development*, Kindle (Cambridge, MA: Harvard University Press, 2003); Virginia Held, *The Ethics of Care: Personal, Political, and Global* (Oxford: OUP, 2006); Michael Slote, *The Ethics of Care and Empathy* (Abingdon: Routledge, 2007).

on the vital importance of storytelling for ethics. Virtue ethical readings are thus open to features of narratives that ethics of care readings are not, since the primary concern of such readings is the quality of caring relationships.

Virtue ethics originated with Aristotle in Athens, circa 384 to 322 BCE. Aristotle's view comes to us primarily through his *Nicomachean Ethics*, but crucial components and extensions also appear in *Eudemian Ethics*, *Politics*, and *Rhetoric*. In these works, Aristotle tries to identify what a good life for human beings looks like, and then argues that traits which promote the living of this good life are the things of real value that each of us should be aiming to promote in our lives (and political constitutions). This means that one of the most significant ways of distinguishing virtue ethics approaches from other major approaches — typically understood to be utilitarianism and Kantianism — has been to cease to focus on the rightness or wrongness of individual actions, and to place these actions in the context of an individual's life, and the time and society in which they live. Put in literary terms, virtue ethics concentrates not on the plot of ethical problems, but on the characterisation of actors in those problems. The shift is from arguing that one should, for instance, help someone in need because it maximizes social utility, to saying that one should help someone in need because it would be kind to do so. According to Hursthouse and Pettigrove, this way of thinking was 'the dominant approach in Western moral philosophy until at least the Enlightenment, suffered a momentary eclipse during the nineteenth century, but re-emerged in Anglo-American philosophy in the late 1950s'.[103] Elizabeth Anscombe is the figure most associated with the revival of virtue ethics, whose article "Modern Moral Philosophy" (1958), a study of the necessity of recognising moral psychology's role in ethics, is frequently referred to in the

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[103] Rosalind Hursthouse and Glen Pettigrove, 'Virtue Ethics', in *The Stanford Encyclopedia of Philosophy*, ed. by Edward N. Zalta, Winter 2016 (Metaphysics Research Lab, Stanford University, 2016), sec. 1 <https://plato.stanford.edu/archives/win2016/entries/ethics-virtue/> [accessed 16 April 2017].

literature as the fountainhead of the revival of interest in this perspective.[104] Beyond this, virtue ethical traditions exist in Eastern thought and others draw inspiration from the works of 'the Stoics, Aquinas, Hutcheson, Hume, and yes, even Nietzsche.'[105] In general, however, Aristotle retains a central place in the work of most virtue ethicists, and it is primarily these neo-Aristotelians that I will be drawing on in the course of my argument.

These ethicists have not simply adopted Aristotle's views — indeed, many of Aristotle's views are clearly abhorrent by modern standards, as for instance his belief that women are deficient or deformed men or that there are people "naturally fitted" to be slaves — but rather virtue ethicists think that his 'distinctive approach […] can fruitfully be adapted to yield what we now recognize as moral truth.'[106] Neo-Aristotelians have maintained Aristotle's naturalistic emphasis, and have been responsive to developments in psychology, sociology, and neuroscience, as well as animal studies, disability studies, and other areas that concern the understanding of human nature. Stan Van Hooft usefully summarises this aspect of the virtue ethical approach in the following way:

> For human beings goodness does not consist just in obeying the moral law or adhering to moral principles. It consists in doing well what is in us as human beings to do. A good individual is one who is good as a human being. Accordingly, a fully developed theory of virtue ethics will include a fully developed account of what it is to be a human being and will then suggest that being virtuous consists in being a human being excellently.[107]

Reading Atwood using this approach will entail looking at two things: how Atwood depicts human beings and what it is good for them to be, and also how human beings can be

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[104] G. E. M. Anscombe, 'Modern Moral Philosophy', *Philosophy*, 33 (1958), 1–19. Anscombe is a member of a group of philosophers I call the 'Somerville Group', all of whom contribute to my reading here. The others are Iris Murdoch, Philippa Foot, Mary Midgley, and Mary Warnock.
[105] Rebecca L. Walker and Philip J. Ivanhoe, *Working Virtue: Virtue Ethics and Contemporary Moral Problems* (Oxford: OUP, 2009), p. 3.
[106] Rosalind Hursthouse, *On Virtue Ethics* (Oxford: OUP, 1999), p. 2.
[107] Stan van Hooft, *Understanding Virtue Ethics* (London: Acumen, 2006), p. 15.

encouraged or discouraged from this kind of excellence. This will involve reading the texts

closely, and investigating various discourses in the novel which reflect on these issues in

different ways. I argue that Atwood is significantly invested in the project of conceptualising

human nature in this way.[108] Literature in general, and these texts in particular, offer us not

only critiques aimed at spooking us into action, but also positive reasons to build a better

world. Though it has been suggested that virtue ethical readings have a 'tendency to read for

character' to the exclusion of all other literary concerns, where virtue ethicists have addressed

literature they have typically done so with a keen interest in style and form as well as

character.[109] Martha Nussbaum — whose reflections on literature span from readings of

Sophocles' *Philoctetes* (409 BCE), Dickens' *David Copperfield* (1849-1850), Henry James'

The Golden Bowl (1904), to Ralph Ellison's *Invisible Man* (1952) — pays particular attention

to style, and celebrates the literary mode as bringing a disturbing but productive force to

reflection on questions about the good life because such literature 'summons powerful

emotions, it disconcerts and puzzles. It inspires distrust of conventional pieties and exacts a

frequently painful confrontation with one's own thoughts and intentions.'[110] She thus argues

that the virtue ethics approach leaves 'much to particularized contextual judgement', such

that one 'cannot well assess the conception without studying complex examples of such

particularized judgement' — the Aristotelian approach is therefore 'dependent on "allies"' to

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[108] This suggests a somewhat essentialist position on human beings; this is suggested by some of Atwood's comments in Katharine Viner, 'Double Bluff', *The Guardian*, 16 September 2000, para. 36 <http://www.theguardian.com/books/2000/sep/16/fiction.bookerprize2000> [accessed 25 January 2018]. However, Atwood's work has also been read as militating against gender essentialism, for which see discussions in Fiona Tolan, *Margaret Atwood: Feminism and Fiction* (Amsterdam: Rodopi, 2007). There is some tension in this position, but this can be understood as suggesting that human beings share an essential nature which is not dependent on gender.

[109] Jay R. Elliott, 'Virtue Ethics and Literary Imagination', *Philosophy and Literature*, 42.1 (2018), 244–56 (p. 246) <https://doi.org/10.1353/phl.2018.0016>.

[110] Martha Nussbaum, *Poetic Justice: The Literary Imagination and Public Life* (Boston, MA: Beacon Press, 1995), p. 5.

make sense of its intricate and technical claims, and I will read Atwood as one of these allies.[111] To do so is to follow David Parker when he writes that the 'current revival in ethical criticism assumes that living well partly depends on the richness, intelligence and practical wisdom of the stories that we tell ourselves, both individually and as a culture.'[112] Virtue ethicists, then, see significant value in narrative, and regard it as central to ethics in way that other ethical theories do not. Virtue ethics offers a developmental picture of human life, which represents human beings as growing into virtue or vice across their lifetimes. We require training and habituation to learn to act properly, and one of the ways that we make sense of this structure across time is in the medium of narrative:

> […] the canon of completeness appropriate to this conception of an ethics of virtue is that of narrative completeness, and thus the appropriate structure of any possible substantively adequate moral philosophy must be more like the structure of a story than like the structure of a formal system. A narrative structure, is, of course, complete only when it has told the story it means to tell.[113]

It is in this sense that Alasdair MacIntyre writes that 'to adopt a stance on the virtues will be to adopt a stance on the narrative character of human life'.[114] This insight into virtue ethics as developmental has been used to adapt Aristotelian-derived virtue ethics as an educational tool.[115]

Having outlined virtue ethical theory in broad strokes, it is necessary to look at two concepts: *eudaimonia* and *virtue*. *Eudaimonia* (εὐδαιμονία) is a Greek term for the good life, which can be translated as "flourishing", "happiness", or "well-being". The merits of these

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[111] Martha Nussbaum, 'Exactly and Responsibly: A Defense of Ethical Criticism', *Philosophy and Literature*, 22.2 (1998), 343–65 (p. 349).
[112] David Parker, *Ethics, Theory, and the Novel* (Cambridge: CUP, 1994), p. 69.
[113] Harold Alderman, 'By Virtue of a Virtue', in *Virtue Ethics: A Critical Reader*, ed. by Daniel Statman (Edinburgh: Edinburgh University Press, 1997), p. 158.
[114] Alasdair MacIntyre, *After Virtue*, 3rd edn. (London: Duckworth, 2007), p. 144.
[115] Kristján Kristjánsson, *Aristotelian Character Education*, Kindle (Abingdon: Routledge, 2015).

terms are debated (vigorously) in the literature, but the majority prefer "flourishing".

Hursthouse provides the fullest summary of these debates:

> Each translation has its disadvantages. The trouble with "flourishing" is that animals and even plants can flourish, but *eudaimonia* is only possible for rational beings. The trouble with "happiness", on any contemporary understanding of it uninfluenced by classically trained writers, is that it connotes something subjective. It is for me, not you, to pronounce on whether or not I am happy, or whether my life, as a whole, has been a happy one, and barring perhaps, cases of advanced self-deception and the suppression of unconscious misery, if I think I am happy, then I am - it is not a thing I can be wrong about. Contrast my being healthy, or flourishing. Here we can have no difficulty in recognizing that I might think that I was healthy, either physically or psychologically, or think that I was flourishing, and just be mistaken. In this respect, "flourishing" is a better translation of *eudaimonia* than "happiness". It is all too easy for me to be mistaken about whether or not my life is *eudaimon*, not simply because it is easy to deceive oneself, but because it is easy to have the wrong conception of *eudaimonia*, believing it to consist largely in pleasure, for example. "Well-being" is also a better translation than "happiness" in this respect, but its disadvantages are that it is not an everyday term and that it lacks a corresponding adjective, which makes for clumsiness.[116]

The idea that we can be deceived about flourishing is one which can be usefully applied to the *MaddAddam* trilogy; in Atwood's trilogy the citizens of the pre-Flood society believe that their civilization is nothing to worry about, but the reader is shown that there is a great deal wrong with it. The idea of *eudaimonia* remains vital to the trilogy, even though the lives depicted in it are far from examples of it. Philip Cafaro provides an extended elucidation of how these views about *eudaimonia* have shifted through their most important historic permutations.[117] In summary, Cafaro reports that Aristotle describes *eudaimonia* in terms of

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[116] Hursthouse, *On Virtue Ethics*, p. 10.

[117] Philip Cafaro, 'Gluttony, Arrogance, Greed, and Apathy: An Exploration of Environmental Vice', in *Environmental Virtue Ethics*, ed. by Ronald L. Sandler and Philip Cafaro, Kindle (Lanham, MD: Rowman & Littlefield, 2005), pp. 135- (p. 136).

the success of a citizen in a fourth-century *polis*; Thomas Aquinas describes it in terms of the relationship of human beings to God; Michel de Montaigne describes it in terms of the life of an individual. Each of these generate pictures of *eudaimonia* which are different from one another, though they overlap in many areas. Their analyses are all useful in exploring how virtues contribute to the good life. Conceptions of *eudaimonia* are developed in a specific context, reflecting the goods that are prized by the virtue theorists who seek explicate their picture of how to live. In *The Fragility of Goodness* (1986) Nussbaum discusses how Attic tragedy illuminates Aristotle's list of features which contribute to *eudaimonia* by showing how they can be disrupted or destroyed.[118] While her account in that monograph is predicated on tragedy, the argument can fruitfully be applied to the ustopian *MaddAddam* trilogy, to the extent that the trilogy draws on the dystopia which is also about how *eudaimonia* can be disrupted and destroyed. In later works, both Nussbaum and MacIntyre have made significant efforts to show how virtue ethics reveals us to be vulnerable and dependent; we are fragile and require a community of caring others in order to reach flourishing.[119] To some extent this focus, and the increasing turn to consider the animality of human beings, suggests a parallel development to work in critical posthumanism, though different from it. Without such a community, our achievement of *eudaimonia* will be impossible. Virtue ethics thus has a strong conceptual connection to the political domain, and neo-Aristotelians see virtue as intertwined with good citizenship.

Eudaimonia is, in this sense, a thick concept, 'a moralized or value-laden concept of happiness, something like "true" or "real" happiness or "the sort of happiness worth seeking or having".'[120] This flourishing can only be realized in one's life by living it in accordance

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[118] Martha Nussbaum, *The Fragility of Goodness: Luck and Ethics in Greek Tragedy and Philosophy*, rev. edn (Cambridge: CUP, 2001).

[119] Martha Nussbaum, *Frontiers of Justice* (Cambridge, MA: The Belknap Press, 2006); MacIntyre, *Dependent Rational Animals*.

[120] Hursthouse and Pettigrove, sec. 2.1.

with the virtues. Scholars ancient and modern have disagreed about whether living a life of virtue is a necessary and sufficient condition for achieving *eudaimonia*, or merely a necessary condition. Bernard Williams, in his seminal study *Moral Luck* (1981), argued that we commonly hold people morally accountable for factors over which they have minimal or no control: for instance, we punish those who commit murder and attempted murder differently, even in cases where the person attempting the murder was only thwarted by the victim unexpectedly tripping, or the murderer's gun misfiring. Nussbaum combines this concept of moral luck with Aristotle's view, and suggests that it is impossible to achieve *eudaimonia* without some supplementary goods which are open to the problem of moral luck. Thus, *eudaimonia* can only be achieved by the virtuous, but the possession of virtue does not guarantee *eudaimonia*. For thinkers who link virtue to the achievement of *eudaimonia*, vices are bad because they inflict damage on those who adopt them. An example of this is Snowman's fragmented consciousness, which is so tortuous because his excessive desires continue to frustrate him, even in the post-Flood world.

In pursuing this idea that *eudaimonia* can reveal not only what it is good to strive for but also how and in what ways we can be damaged as individuals, Lisa Tessman persuasively argues that the concept of *eudaimonia* can be used to critique society:

> Eudaimonism provides an interesting way of thinking about liberatory political struggles, for one might portray oppression as a set of barriers to flourishing and think about political resistance as a way of eradicating these barriers and enabling flourishing. I believe that there is some notion of flourishing implicit in the projects of political resistance, for without some idea of what is a better and what is a worse life, there is no explanation nor motivation for the commitment to change systems of oppression.[121]

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[121] Lisa Tessman, *Burdened Virtues: Virtue Ethics for Liberatory Struggles* (Oxford: OUP, 2005), p. 3.

In this sense, the concept of *eudaimonia* is, at the very least, linked to Sargent's impulse of

utopian dreaming and the postulation of a eutopia; it also indicates that virtue ethical views

need not be fundamentally conservative. The dystopia — which, recalling Atwood's fusion of

the "ustopia", is implicit in the eutopian conception of *eudaimonia* — is used to 'forewarn,

illustrate, dissuade' against vice, and to encourage agents towards the virtuous.[122] Tessman,

building on work by Nussbaum, highlights the fact that 'the relationship between virtue and

flourishing is a contingent one, and that the insufficiency of virtue for flourishing is often

more salient than it is necessary.'[123] That is, in situations of oppression, material

disadvantage, or systemic injustice, 'even traits that can still be assessed as virtues may fail to

manifest any connection to a good life.'[124] Further, Tessman argues that one of the failures of

virtue ethics with regard to understanding *eudaimonia* is that virtue ethicists frequently fail to

address questions of social oppression, regarding most people by default as at least partially

virtuous; by contrast, Tessman thinks that given

> the pervasive injustice of oppression and given the high level of participation
> in maintaining structures of oppression and the difficulty of unlearning traits
> associated with domination even for those who become critical, I see unjust
> and other vicious people as fairly ordinary.[125]

Within the world of the *MaddAddam* trilogy, we can see how this critically motivated picture

of *eudaimonia* might play a role. In as much as there is a directed "system" in the pre-Flood

world, it is one which is radically unjust. The picture of *eudaimonia* in the *MaddAddam*

trilogy is concealed by its ustopian logic; by painting a picture of a bad society, Atwood

shows something of what a good society would not be like. Moreover, Atwood is particularly

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[122] *Blast, Corrupt, Dismantle, Erase: Contemporary North American Dystopian Literature*, ed. by Gisele M. Baxter, Brett Josef Grubisic, and Tara Lee, Kindle (Waterloo, ON: Wilfrid Laurier University Press, 2014), p. 8.
[123] Tessman, p. 160.
[124] Tessman, p. 162.
[125] Tessman, p. 56.

attuned to Tessman's point that vicious people are fairly commonplace, while it is the virtuous who are more remarkable. The trilogy depends on this view, as Crake's plan to save the world does not make sense without it, but, once again, the trilogy's ustopian logic balances the sense of misanthropy: if we find the majority of the people in the trilogy not merely vicious but abhorrent, it shows us how we can avoid becoming such a person or fostering a culture or society where it is easier to become such a person. Toby remains a vital figure in this respect, since since she is the most virtuous of the characters, and is also the one with whom the reader develops the most sympathy. A powerful storyteller beset with doubts, compassionate but also unbending, she is arguably the most Atwoodian character in the trilogy.

In the discussion above, I have anticipated somewhat the discussion of what a virtue is. A virtue (*arete*, ἀρετή) is

> an excellent trait of character. It is a disposition, well entrenched in its possessor — something that, as we say, goes all the way down, unlike a habit such as being a tea-drinker — to notice, expect, value, feel, desire, choose, act, and react in certain characteristic ways. To possess a virtue is to be a certain sort of person with a certain complex mindset.[126]

A virtuous person 'is a morally good, excellent, or admirable person who acts and reacts well, rightly, as she should — she gets things right.'[127] A significant number of, though by no means all, virtue ethicists tie these virtues to *eudaimonia*; that is, an excellent trait of character is a virtue when it contributes to *eudaimonia* in some (fairly straightforward) way. This is to say that 'virtues are, in some general way, beneficial. Human beings do not get on well without them.'[128] The exercise of the virtues allows us to achieve the goods of *eudaimonia*, and lack of the virtues hinders us from achieving those goods. There is a sense

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[126] Hursthouse and Pettigrove, sec. 1.1.
[127] Hursthouse, *On Virtue Ethics*, p. 13.
[128] Philippa Foot, *Virtues and Vices and Other Moral Essays* (Oxford: OUP, 2009), p. 2.

in which the virtues resemble skills, because they require practice, and they are aimed at some end.[129] Philippa Foot points out that virtues have a corrective aspect:

> […] going back to the idea of virtues as correctives, one may say that it is only because fear and the desire for pleasure operate as temptations that courage and temperance exist as virtues at all. As things are we often want to run away not only where that is the right thing to do but also where we should stand firm; and we want pleasure not only where we should seek pleasure but also where we should not. If human nature had been different there would have been no need of a corrective disposition in either place, as fear and pleasure would have been good guides to conduct throughout life.[130]

On this view, virtues necessarily take place against a background assumption of human nature, and common tendencies towards vice; without such a nature, and without broader reference to the 'narrative character of human life', the virtues cease to be conceivable as virtues. Within the neo-Aristotelian framework, human nature is based in Aristotle's description of humans as social, rational animals.[131] For Aristotle 'a human being is not an immaterial soul, but is essentially embodied and essentially lives a social life.'[132] Indeed, human identity 'is primarily, even if not only, bodily, and therefore animal identity and it is by reference to that identity that the continuity of our relationships to others are partly defined.'[133] Connecting this to our emotions, Hursthouse suggests that we should be struck

> not only by the fact that human beings are subject to some emotions which non-rational animals are also subject to, not only by the fact that human beings are subject to some emotions that non-rational animals notably lack (for

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[129] For more on this point, see Julia Annas, *Intelligent Virtue* (Oxford: OUP, 2011), especially chap.3 Skilled and Virtuous Action.

[130] Foot, p. 9.

[131] For further discussion of this and alternate conceptions of human nature, see Mary Midgley, *Beast and Man: The Roots of Human Nature* (London: Routledge, 2002); Christopher Berry, *Human Nature* (Basingstoke: Macmillan, 1986); Sean Sayers, *Marxism and Human Nature* (London: Routledge, 1998); P.M.S. Hacker, *Human Nature: The Categorical Framework* (Oxford: Wiley-Blackwell, 2010); and more broadly, Joanna Bourke, *What It Means To Be Human* (London: Virago, 2013).

[132] Bernard Williams, *Ethics and the Limits of Philosophy* (Abingdon: Routledge, 2008), pp. 34–35.

[133] MacIntyre, *Dependent Rational Animals*, p. 8.

instance pride, shame and regret) but, much more significantly, by the way in which reason can radically transform an emotion that human beings certainly share with animals, such as fear.[134]

This account is underpinned by the naturalistic and empirical strand of Aristotle's thought. Neo-Aristotelianism is therefore amenable to alteration based on new findings in science regarding animals. Unlike Rene Descartes, Aristotle understood human beings to be one of a number of social, communal species; he thought some animals showed practical foresight, indicating intelligence. Though it is sometimes claimed that Aristotle seeks to divide humans from non-human animals; that is not what one finds in his writings regarding animals. Neo-Aristotelians are likewise responsive to new developments in animal studies that reveal more about our shared evolutionary heritage.[135]

Because virtues are reflections of our embodiment and of our lives as a gregarious and dependent social species, they are also developmental in character:

> We start as learners in a specific social and cultural context, following a role model and learning to do what she does. The learner needs to understand what in the role model to follow, so as to grasp for herself the point of thinking and acting in this way; learning involves a drive to aspire, not mimic. Virtue is the product of nature, habituation and reason; habituation educates the natural

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[134] Rosalind Hursthouse, 'Virtue Ethics and the Emotions', in *Virtue Ethics: A Critical Reader*, ed. by Daniel Statman (Edinburgh: Edinburgh University Press, 1997), p. 110. The emotional lives of animals is a subject of significant disagreement between theorists and researchers; for wider debates, see Derek Ryan, *Animal Theory: A Critical Introduction* (Edinburgh: Edinburgh University Press, 2015); *Thinking With Animals: New Perspectives on Anthropomorphism*, ed. by Lorraine Daston and Gregg Mitman (New York, NY: Columbia University Press, 2005); Marc Bekoff, *Minding Animals* (Oxford: OUP, 2002); Marc Bekoff, *The Emotional Lives of Animals*, Kindle (Novato, CA: New World Library, 2007); for more on the evolutionary connection between human and non-human animal emotions, see Frans De Waal, *The Age of Empathy* (London: Souvenir Press, 2011).

[135] For instance, in Richard Marshall, 'The Monarchy of Fear', *3:AM Magazine*, 2018, para. 28 <https://www.3ammagazine.com/3am/the-monarchy-of-fear/> [accessed 3 September 2018], Nussbaum departs from the Stoics with the recognition of 'the evident fact that animals have all kinds of emotions'.

tendencies we have and develops through life as we meet changing circumstances.[136]

Seen this way, literature does more than provide models for the learner to mimic, since mimicry is not sufficient for virtue. The rounder picture that literature provides, including socio-political background, psychological insight, the use of specific virtue and vice terms, all contribute to the learner's coming to aspire to virtue. Individual virtues arise in a sphere of emotion or activity, such that courage is understood to be the virtue in the realm of feeling fear. A final consideration of virtues in the general sense therefore is that they are understood to be a point on a continuum between two extremes. This is known as Aristotle's doctrine of the Golden Mean, which has not always been received well: 'Immanuel Kant thought it was false and Bertrand Russell dismissed it as "true, but uninteresting".'[137] In Paula Gottlieb's account, the Golden Mean has three aspects, each crucial to the concept of virtue:

> First, virtue, like health, is in equilibrium and is produced and preserved by avoiding extremes. The good person, having a balanced disposition, will have the correct emotions on the correct occasions and act accordingly. Second, virtue is in a mean relative to us. Third, each virtue is in a mean between two vices, one of excess and one of deficiency.[138]

Returning to the courage example, courage is a point on a continuum from being cowardly (deficient in courage) to brazenly foolhardy (excessive in courage). The truly courageous person acts in the right way, at the right time, with the right intention, in respect both to us as individuals, and to the concept of *eudaimonia*.

However, human character is not defined by single virtue; human character is marked by a complex interplay of a large number of traits. Thus, as Gilbert Ryle — famous for his

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[136] Julia Annas, 'Which Variety of Virtue Ethics?', in *Varieties of Virtue Ethics*, ed. by David Carr, James Arthur, and Kristján Kristjánsson (London: Palgrave Macmillan, 2017), pp. 35–51 (p. 36).
[137] Paula Gottlieb, *The Virtue of Aristotle's Ethics* (Cambridge: CUP, 2009), p. 3.
[138] Gottlieb, p. 3.

behaviourist study *The Concept of Mind* (1949) — writes in his surprisingly sensitive essay on Jane Austen's moral sensibility,

> the Aristotelian pattern of ethical ideas represents people as differing from one another in degree and not in kind, and differing from one another not in respect of just a single generic Sunday attribute, Goodness, say, or else Wickedness, but in a respect of a whole spectrum of specific week-day attributes.[139]

Reading in an Aristotelian spirit, then, will involve the complexity of the whole spectrum of quotidian attributes, and will avoid reference to a monolithic conception of the good with which other values are ultimately commensurable. Ryle suggests Austen's novels where this is most obvious are the three named after 'abstract nouns', *Sense and Sensibility* (1811), *Pride and Prejudice* (1813) and *Persuasion* (1818). In each of these novels she creates ethical — but not didactic — fictions, while representing characters as if they were real, not caricatures.[140] Ryle praises the roundness of their characterisation, echoing the terms of E.M. Forster's *Aspects of the Novel* (1927), in which Forster divides characters in novels into two types: flat and round.[141] A round character 'waxes and wanes and has facets like a human being'; they have 'the incalculability of life' about them, even though they are simply fictional creations.[142] For Forster, Austen is the key example of an author producing rounded characters, and while he explains and defends the use of flat characters for novelistic

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[139] Gilbert Ryle, 'Jane Austen and the Moralists', in *Collected Papers*, 3 vols (London: Hutchinson, 1971), I, p. 284.

[140] Jane Austen plays a central role in ethical criticism, and is often studied in this light; among recent publications in *Philosophy and Literature* alone see Christopher Toner, 'Jane Austen on Practical Wisdom, Constancy, and Unreserve', *Philosophy and Literature*, 41.1 (2017), 178–94 <https://doi.org/10.1353/phl.2017.0029>; Erin Stackle, 'Jane Austen's Aristotelian Proposal: Sometimes Falling in Love Is Better Than a Beating', *Philosophy and Literature*, 41.1 (2017), 195–212 <https://doi.org/10.1353/phl.2017.0030>; Valerie Wainwright, 'Jane Austen's Challenges, or the Powers of Character and the Understanding', *Philosophy and Literature*, 38.1 (2014), 58–73 <https://doi.org/10.1353/phl.2014.0016>; and James Lindemann Nelson, 'How Catherine Does Go On: Northanger Abbey and Moral Thought', *Philosophy and Literature*, 34.1 (2010), 188–200 <https://doi.org/10.1353/phl.0.0079>.

[141] E.M. Forster, *Aspects of the Novel*, Kindle (London: Hodder and Stoughton, 2016), pp. 67–77.

[142] Forster, pp. 68, 77.

purposes, Forster believes it is sufficient to explain what he means by rounded characterisation simply by pointing to Austen's works. Filling out the description of a rounded character a little more, particularly with respect to Austen, Ryle suggests that a rounded character can be understood as neither

> black or white, but iridescent with all the colours of the rainbow; and he is not a flat plane, but a highly irregular solid. He is not blankly Good or Bad, blankly angelic or fiendish; he is better than most in one respect, about level with the average in another respect, and a bit, perhaps a big bit, deficient in a third respect. In fact he is like the people we really know, in a way in which we do not know and could not know any people who are just Bad or else just Good.[143]

I read Atwood's characters as having this kind of roundness, in contrast to Michiko Kakutani, who, in an early review of *Oryx and Crake*, dismissed the main characters as "cardboard".[144] Virtue ethicists are intensely interested in characterisation, because they see character as the real site of ethics. All of the variations in quality that Ryle picks up on in the passage above are vital to the thinking of virtue ethicists. Thus, when they turn to literature, they put particular emphasis on how characters are represented, what they feel, how they act and react; in short, how they express their sense of life and values. For most purposes — though not all — this is most successfully achieved by round characters, because they are 'like the people we really know', complex, changeable, mired in the 'incalculability of life'. By reading about such characters, and trying to understand them using all the skills of interpretation, empathy, and critical analysis to explore them, we gain skills and insights into character which we can reflect on in our own lives.

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[143] Ryle, I, pp. 284–85.
[144] Michiko Kakutani, 'Books of the Times; Lone Human in a Land Filled With Humanoids', *The New York Times*, 13 May 2003, section Books <https://www.nytimes.com/2003/05/13/books/books-of-the-times-lone-human-in-a-land-filled-with-humanoids.html> [accessed 7 March 2018].

This explanation of virtue in general is included to illuminate the virtue of temperance — which may also be known as moderation or balance self-control — since I take this to be central to the *MaddAddam* trilogy. Temperance is a virtue which navigates between 'extremes of self-indulgent and even addictive appetite' and 'an unappreciative and insensitive puritanism'.[145] It allows us to 'reliably and deliberately align one's desires with the good.'[146] In the trilogy, we are presented with individual and societal excess, where ever greater desire fuels ever increasing problems; in the God's Gardeners, we see the opposite extreme. The mean of temperance takes place with respect to pleasures, and these pleasures can be understood broadly to refer to all pleasures, or narrowly to refer only to some, on an axis between say gluttony and fastidiousness, or between lasciviousness and austere chastity. Aristotle distinguishes between two types of self-control: *sôphrosunê* (right desire) and *enkrateia* (continence).[147] Both of these are opposed by *pleonexia* (greed), which Byron Williston sees as a problem that particularly besets us in the twenty-first century, because our use of fossil fuels has removed any constraint on *pleonexia* — this is an analysis with which Atwood's trilogy strongly concurs.[148] Those who have *enkrateia* experience wrong desires, but are able to control them; in Aristotle's view this is good but less than truly virtuous, for the virtuous have trained themselves to such an extent that they only have right desires.[149] Aristotle's somewhat negative view of the merely continent, unusually, fails to recognise the value of the role that continence plays in developing temperance. The process of habituating oneself to right desire can only take place in the context of one's ability to restrain one's acting on wrong desires. A charitable reading presents Aristotle's dismissal of the continent

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[145] MacIntyre, *Dependent Rational Animals*, pp. 87–88.
[146] Vallor, p. 123.
[147] Aristotle, *Nicomachean Ethics*, trans. by Roger Crisp (Cambridge: CUP, 2000), sec. 1145a.
[148] Byron Williston, *The Anthropocene Project: Virtue in the Age of Climate Change* (Oxford: OUP, 2015), p. 86.
[149] Aristotle, *Nicomachean Ethics*, sec. 1146a.

as a dismissal of adults who have remained at the stage of *enkrateia*, having failed to make the leap from constraining wrong desire to embracing right desire. In what follows, I will interpret temperance broadly, so that it subsumes ideas about eating, sex, commercial and industrial practices, and also the division between the temperate and the continent. All of these have a role to play in understanding Atwood's construction of temperance; very few characters in the *MaddAddam* trilogy are manifestly temperate, but her protagonists struggle with continence of desire, and the broad outline of the trilogy urges us to embrace the concept of right desire. Atwood's text takes vice seriously, and shows that we are all far more vicious than many virtue ethicists think. Cafaro argues that how 'human beings fail can tell us much about ourselves. Perhaps nowhere are our failures more apparent than in our treatment of nature.'[150] As such, he names four vices that he thinks particularly bedevil the environmental project: 'gluttony, arrogance, greed, and apathy.' In my argument here, I will assume that temperance addresses gluttony and greed, and, in as much as it urges us to take up a more sustainable lifestyle, also addresses arrogance and apathy.

Some critics have been concerned by the appeal to empathy in many forms of ethical criticism including virtue ethics, and they argue that empathy fails to achieve the moral transformations which Nussbaum and other virtue ethicists argue make novel reading a particularly valuable moral activity. These include Suzanne Keen's study on narrative, *Empathy and the Novel* (2007), and Anne Whitehead's contribution to the debate within the medical humanities, *Medicine and Empathy in Contemporary British Fiction* (2017). Both these authors point to texts where developing empathy is shown to fail, and to other texts where developing empathy for characters would appear to defeat the moral ends of empathy. These criticisms do not defeat a virtue ethics reading, because such readings see literature as playing a much wider role in ethical thinking than simply creating a repository of character

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[150] Cafaro, p. 135.

examples which we can consult; nonetheless, empathetic identification with characters is one important process that contributes to the ethical dimensions of novels in general. Two other important aspects of the virtue ethics model offer other mechanisms by which reading novels helps to foster the virtues, and this helps to balance the reliance on empathy. One is explored by Iris Murdoch, and the other by Nussbaum.

Murdoch's chief contribution is her focus on the notion of attention, which she maps out in an essay, 'The Idea of Perfection', which was later gathered into her most important work on ethics, *The Sovereignty of Good* (1970). The feature that distinguishes Murdoch's approach from others is her insistence on the continuous nature of ethical activity. For Murdoch, ethics does not consist of evaluative choices which appear as if out of nowhere; ethics consists rather in the continual processes of inhabiting and shaping our selves, so that when we come to a choice, it will be almost as if we have already made it.'[151] Her picture of the psychology of a moral agent is, in a crucial way, developmental. It expects ethical reflection to be a part of a process of re-evaluation, part of the life-history of a person, which fundamentally connects our ethical capacities to our lives as we live them. 'Moral change and moral achievement are slow,' not because they take a set period of time to master, but because they take a variable amount of time to develop depending on our evolving circumstances and our willingness to put strenuous effort into the process. In this way, Murdoch links ethics and literature through their application to our own lives. For her the two are not far apart to begin with, since they are both dependent on a moral vocabulary and articulation, but it is in the honing of our vision and perception of the good that they come together most productively. This process of inhabiting and shaping the self is best understood through the metaphor of vision: 'Where virtue is concerned we often apprehend more than we

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[151] Iris Murdoch, *The Sovereignty of Good*, 2nd edn. (London: Routledge, 2001), p. 36.

clearly understand and *grow by looking*.'[152] 'I can only choose within the world I can *see*,' she argues, and literature is one of the ways that we can expand our vision to recognise new features as morally salient; moreover, reading literature practices us at the art of paying attention in a concentrated way that may also prove morally valuable. Thus, Lawrence Blum argues that in 'a given situation, moral perception comes on the scene before moral judgement; moral perception can lead to moral action outside the operation of judgement entirely; and, more generally, perception can involve moral capacities not encompassed by moral judgement.'[153] It is in consequence of this that Murdoch claims that

> the most essential and fundamental aspect of culture is the study of literature, since this is an education in how to picture and understand human situations. We are men and we are moral agents before we are scientists, and the place of science in human life must be discussed in words. This is why it is and always will be more important to know about Shakespeare than to know about any scientist […].[154]

Murdoch's argument here is not directly about human character, but rather focuses on moral perception, what it means to view a situation and to recognise what is significant about it. Failure to perceive thus precludes taking moral action; the first step is to recognise the existence of a problem, and reading literature can help us to do that.

Nussbaum, who concurs with Murdoch's view that moral perception is necessary and that literature can improve such perception, has instead focused on broader questions about literary representation. When philosophers turn to literature, she argues, they tend to do so in order to mine it for thought experiments, or for situations against which they can test their moral strategies. Instead, she argues that we need to put significant effort into understanding literary texts within their own domain, not as poorly conceived theoretical treatises that have

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[152] Murdoch, p. 30.
[153] Lawrence A. Blum, *Moral Perception and Particularity* (Cambridge: Cambridge University Press, 1994), p. 31.
[154] Murdoch, p. 33.

mistakenly been written as novels. Thus for Nussbaum, style, form, genre, register, and a hundred other literary considerations are all implicated as shaping the ethical concerns of literary works of art. 'Good ethical criticism', she writes, reflecting on Wayne Booth's rich study *The Company We Keep* (1988), 'does not preclude formal analysis, but actually requires it. Style itself shapes the mind; and these are the effects that a good ethical critic discerns.'[155] Nussbaum's work — which reflects on a range of texts which vary hugely in form, style, content, and indeed language — stresses that such concerns are fundamental to the proper evaluation of texts when trying to understand the central question for ethic critics: How should one live?

> The decision to write a novel rather than a treatise already implies some views and commitments. But the relationship of the particular work to its predecessors and rivals in its own genre must also be considered: for there is no such thing as "the novel" […] We ask certain large-scale structural questions here — for example, about the role of the hero or heroine, the nature of the reader's identification, about the way in which authorial consciousness is present in the text, about the novel's temporal structure. We also ask questions that are more often called stylistic, such as: What are the shape and rhythm of the sentences? What metaphors are used, and in what contexts? What vocabulary is selected? In each case, the attempt should be to connect these observations to an evolving conception of the work and the sense of life it expresses.[156]

Thus, for Nussbaum, all the tools of literary scholarship offer ethical insight, and an ethical account of a work of art cannot fail to consider them. Empathising with a character or characters is therefore not the only, or necessarily even the primary, mechanism by which literature acts to form our ethical sensibilities. However, this insistence on an account of formal features does not isolate literary texts from answering the central ethical question;

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[155] Martha Nussbaum, *Love's Knowledge: Essays on Philosophy and Literature* (New York, NY: OUP, 1992), p. 233.
[156] Nussbaum, *Knowledge*, p. 35.

indeed, Nussbaum's own practice connects these representations directly to life, and, on October 15, 1993, she found herself 'on the witness stand in a courtroom in Denver, Colorado, telling District Judge H. Jeffrey Bayless about Plato's *Symposium*', arguing that Aristophanes' speech in *Symposium* gave grounds for striking down a discriminatory law, Colorado's Amendment 2.[157] Her testimony — based on both her reading of Plato and her work as director of a United Nations project on quality of life assessment in Finland — was requested by the plaintiffs aiming to overturn the Amendment 2, which restricted the right of gay or bisexual people to participate equally in the political process. In her article detailing the case and the arguments involved in it, she describes Richard Posner's change of view on the matter of discrimination against homosexuals, based largely on his reading of *Symposium*.

The picture of virtue ethics I have outlined so far has focused on redressing problems with ethics broadly conceived — by, for instance, suggesting that emotions are a vital part of moral psychology. In recent times, virtue ethics has made strides to be more responsive to the specifics of the current global situation. In this regard, I have found two studies particularly valuable: Shannon Vallor's *Technology and the Virtues: A philosophical guide to a future worth wanting* (2016) and Byron Williston's *The Anthropocene Project: Virtue in the age of climate change* (2015).[158] Building on MacIntyre's view of virtues as necessarily situated within "practices", these virtue ethicists have tried to look at virtues as they either are or should be understood within contemporary forms of practice.[159] This emphasis contributes to the growing trend of "Revolutionary Aristotelianism", according to the title of a recent collection on the influence of MacIntyre.[160] Vallor and Williston both aim to show that it will

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[157] Martha Nussbaum, 'Platonic Love and Colorado Law: The Relevance of Ancient Greek Norms to Modern Sexual Controversies', *Virginia Law Review*, 80.7 (1994), 1515–1651 (p. 1517).
[158] Vallor; Williston, *Anthropocene*.
[159] MacIntyre, *After Virtue*, pp. 187–203.
[160] *Virtue and Politics: Alasdair MacIntyre's Revolutionary Aristotelianism*, ed. by Paul Blackledge and Kelvin Knight (Notre Dame, IN: University of Notre Dame, 2011).

be necessary to adopt a specific set of virtues in order to flourish, and for our descendants to flourish, in the twenty-first century and beyond. In doing so, they both acknowledge that conceptions of *eudaimonia* have new dimensions that have not been addressed by the virtue ethicists of the past. It is important not only to understand how *eudaimonia* was understood by the Ancient Greeks, or monastic Christians, though this historical and comparative work improves and widens our understanding of virtues; it is important to clarify what *eudaimonia* means for *us*, in the first decades of the twenty-first century, in many ways a century which may be fundamentally different in character than those which preceded it. Atwood's *MaddAddam* trilogy has much to offer in this regard. In this thesis, I want to bring together the situated and historically-placed virtues as understood by Vallor and Williston, into dialogue with traditional forms of virtue ethics which have explored the contributions of literature to virtue ethics more thoroughly. Both Vallor and Williston make brief mentions of literature (as valuable for bringing particular intuitions into view), but neither examine any literary examples at length. Williston in particular thinks that the main role of such narratives in his *Anthropocene Project* is simply to spook the global prosperous into doing more about climate change, and cites ecological disaster movies as a good medium for this. I think that literature has a much larger and more significant role to play than that of the "bogeyman" of the global prosperous; frightening people about the future is not enough. This is one reason why Atwood refuses the binary logic of the eutopia/dystopia distinction; there needs to be a positive reason to make better choices for the planet, not only negative reasons to avoid the extinction of life as we know it. Literature offers us a complex, multivalent, and powerful way to reflect on our present situation.

Williston's argument in *The Anthropocene Project* focuses primarily on persuading the global prosperous to pay attention to the vital interests of the people of the future and of the

global poor.[161] Atwood's fiction is addressed to a similar audience, representing, as it does, inhabitants of prosperous countries who bear a disproportionate amount of blame for the state the world appears to be in at the start of *Oryx and Crake*. Williston contends that, while we aspire to embody justice, truthfulness, and other virtues, in fact we fail to

> act consistently on principles we otherwise endorse because, seduced by consumption, we lack full self-control; and the full truth about climate change makes us anxious, so we find ways to flee, distort, or conceal it. These forms of motivated irrationality prevent us from being, respectively, fully just and truthful people. However, the desire for the global prosperous is a powerful potential force for change. […] Because of the access to democratic institutions much (though not all) of this group enjoys it can use this very force to alter the global system. I show that there is no other way to do this than through significant desire-constraint on its part, but my claim is that members of this group can, in principle, be persuaded to do this by their own moral lights. This makes them an ideal leverage point in the world system.[162]

Thus, persuading the global prosperous to make changes by appealing to their moral sensibilities is, according to Williston, the best chance we have of averting disaster for all human beings. I suggest that Atwood has a similar project in mind; far from using her ustopias to propose sweeping changes in the sociopolitical realm, as H.G. Wells would have done, Atwood's narratives aim to alter the desire itself, to persuade us to take up "desire-constraint" ourselves. This is not to suggest that everyone who reads the trilogy will be converts to the God's Gardeners — this process does not happen directly. By showing a complex picture of desire, virtue, and vice, Atwood's novels take part in a broader cultural conversation about our values, and it is in that way that the influence of her fiction is

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[161] It thus draws on and to some extent overlaps with environmental virtue ethics; for more on this see Williston's discussion in *Environmental Ethics For Canadians*, ed. by Byron Williston (Oxford: OUP, 2012), pp. 247–73; as well as Ronald L. Sandler, *Character and Environment*, Kindle (New York, NY: Columbia University Press, 2007); and *Environmental Virtue Ethics*, ed. by Ronald L. Sandler and Philip Cafaro, Kindle (Lanham, MD: Rowman & Littlefield, 2005).

[162] Williston, *Anthropocene*, pp. 9–10.

exercised. Williston's study concentrates on three virtues, Justice, Truthfulness, and Hope; he is concerned with what should motivate us to adopt "desire-constraint". Thus while I take his characterisation of the direness of the twenty-first century position to heart, Williston's work plays a largely inspirational role in my argument, since I argue that Atwood is primarily concerned with the temperance of desire — in Williston's account, this is subsumed under political pressure and thus is related to Justice.

Vallor, however, deals with temperance directly, stressing its importance to the project of developing technomoral virtue as a whole. While self-control 'is a requirement for *any* person of virtue, even a monk living on a remote mountaintop entirely cut off from modern technology', temperance has become an increasingly urgent matter. 'Compared with past eras', she writes, communication technologies,

> in combination with global transportation systems, grant us access to a vastly expanded range of available goods, more aggressively advertise to us their selection and enjoyment by others, and increase the speed with which we can attain, consume, and replace them.[163]

A particular concern of Vallor's is the 'much-discussed digital fragmentation of cultures', whereby one can no longer be sure that one's local peers have 'read the same books, seen the same movies or news shows, engaged in the same leisure activities, or visited the same places.'[164] This results, she argues, in the impoverishment of a cultural narrative about a 'good *shared* life in community'.[165] Thus, she defines temperance in the technomoral context to be '*an extraordinary ability in technosocial contexts to choose, and ideally to desire for their own sakes, those goods and experiences that most contribute to contemporary and future human flourishing.*'[166] She explores this virtue particularly in relation to kinds of new

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[163] Vallor, p. 123.
[164] Vallor, p. 123.
[165] Vallor, p. 124.
[166] Vallor, p. 124.

media, mass surveillance technologies, and biomedical enhancements, themes that play a prominent role in the *MaddAddam* trilogy.

A final theoretical point to be considered is which works of literature virtue ethicists and ethical critics have turned to in their scholarly works. Apart from several texts already mentioned, Nussbaum has written in detail about Dickens's *Hard Times* (1854) and James's *Princess Casamassima* (1885-1886). I have indicated the importance of Austen to ethical critics. Other frequently studied literary figures include Samuel Beckett, E.M. Forster, and William Shakespeare (especially *King Lear*). Few of these works come from the twentieth century, and none from the twenty-first, which may provide a significant reason why virtue ethicists interested in literature have not conducted any extensive work on the overlapping issues of literature, virtue, and climate change. Moreover, there has been little interest in popular writing outside of the literary canon. One notable exception is Sandrine Berges' excellent chapter in *Values and Virtues: Aristotelianism in contemporary ethics* (2006), in which she argues for hardboiled detective fiction as a morally-charged genre. Taking issue with Nussbaum's particular interest in the works of Henry James, she asks 'What is the point of something being useful for moral education if it is only accessible to a minority of adult readers?'[167] In fact, Berges assumes the same model of ethical criticism to Nussbaum, namely that novels

> force us away both from complacent dogmatism, and from rehearsed middle-of-the-road attitudes which we are always tempted to adopt for sheer peace of mind. In short, reading novels can help us develop morally good attitudes, responses, and emotions, which we can then transfer to real life.[168]

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[167] Sandrine Berges, 'The Hardboiled Detective as Moralist: Ethics in Crime Fiction', in *Values and Virtues: Aristotelianism in Contemporary Ethics*, ed. by Timothy Chappell (Oxford: Clarendon, 2006), pp. 212–25 (p. 212).
[168] Berges, p. 213.

However, she argues that genre fiction has an important contribution to make to this which has been ignored in the scholarly literature. In Atwood's genre-bending fiction, we have another possibility to examine such questions, since Atwood's work is understood as both "literary" in the mode of James, and as popular in the mode of Ian Rankin, Marcia Muller, Sara Paretsky, and Jean-Claude Izzo, the authors Berges studies closely.[169]

I am not aware of any attempt by virtue ethicists or ethical critics to provide a reading of sf, speculative fiction, or utopian fiction in this fashion. The fierce debates concerning the genre of Atwood's trilogy make the case more complex than Berges' hardboiled detective narratives, since there is not a consensus model of the genre that can be relied upon to provide a general ground for reading the genre as an instance of ethical reflection. Nonetheless, Atwood's designation of the trilogy as ustopian ultimately proves relatively fertile in this regard. The trilogy mediates between an explicit dystopia, a post-apocalyptic wasteland, and an implicit eutopia. This connects closely to Lisa Tessman's insistence that, far from being a conservative force, the aspiration to *eudaimonia* can be radical. Ustopian texts are deeply interested in and reflective of the life well-lived, even, or perhaps particularly, when they show the sheer awfulness of life under certain conditions. Ustopian texts, drawing on their eutopian roots, pay close attention to the quotidian details of people's daily lives — the development of a new type of wall-paper, the computer games that teenagers play, the types of reproduction furniture that clutter Compound houses. These details are connected, drawing on their dystopian inheritance, to the whole structure and system of the society depicted, which in turn causes us to reflect on ours. The distinction between speculative fiction and science fiction reinforces this view, if we read speculative fiction as a genre built on present day technology and historical precedent for human actions. Certainly there is a great deal to explore in this regard, and much more work to be done;

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[169] Berges, p. 216.

however, taking Berges' argument as inspiration, I see narratives from genre fiction as having the potential to be ethically significant forms of literature.

Chapter Overview

In what follows, I will be arguing for the *MaddAddam* trilogy as in part a meditation on temperance, which is intended to compel us to take up that virtue for ourselves as individuals. The trilogy does not call for radical political change, or present a particular political position as the solution to twenty-first century problems; Atwood sees a liberal democracy as the most promising form of government for human freedoms which shouldn't be abandoned, but doesn't present adopting it as a solution for the problems raised in the trilogy. Rather, Atwood suggests that a gradual shift in sensibility is necessary, in which we come to see ourselves as situated in a fragile world which we can, and do, damage by our choices. We need to move from the 'cowboy economy' — in which the earth is understood as a series of 'illimitable plains' which can be exploited — to the 'spaceman economy' in which

> the earth has become a single spaceship, without unlimited reservoirs of anything, either for extraction or pollution, and in which, therefore, man must find his place in a cyclical ecological system which is capable of continuous reproduction of material form even though it cannot escape having inputs of energy.[170]

R. Buckminster Fuller also conceived of Earth as Spaceship:

> "I've often heard people say: 'I wonder what it would feel like to be on board a spaceship,' and the answer is very simple. What does it feel like? That's all

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[170] Kenneth Ewart Boulding, 'The Economics of the Coming Spaceship Earth', in *Environmental Quality in a Growing Economy*, ed. by H Jarrett (Baltimore, MD: Johns Hopkins University Press, 1966), pp. 3–14 (p. 8).

we have ever experienced. We are all astronauts on a little spaceship called Earth."[171]

Boulding and Fuller theorised the economy and the global system through this sf trope. However, as Fuller suggests, the experience of being on the Earth and being in space is not radically different — in fact, they are the same, and we have already experienced what it is like to live in a constrained environment; we are just deluded about its boundaries. Rather than creating Suvinian cognitive dissonance, Spaceship Earth is more like a trope of speculative fiction; not an imagined alterity, but an historically situated reality.

A short while after the Flood, Snowman leads the Crakers out of the egg-shaped Paradice Dome, into the world now unencumbered by the wasteful civilization that proceeded them. Eggs are a recurrent motif in Atwood's writing, often blending hope for new life with contaminating fears of control and consumption.[172] Fuller uses eggs as a second metaphor for describing Spaceship Earth, an egg which contains enough liquid nutriment to keep the chick alive until the point it is large enough to hatch and seek out nourishment itself:

> My own picture of humanity today finds us just about to step out from amongst the pieces of our just one-second-ago broken eggshell. Our innocent, trial-and-error-sustaining nutriment is exhausted. We are faced with an entirely new relationship to the universe. We are going to have to spread our wings of intellect and fly, or perish; that is, we must dare immediately to fly by the generalized principles governing the universe and not by the ground rules of yesterday's superstitious and erroneously conditioned reflexes.[173]

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[171] R. Buckminster Fuller, 'Spaceship Earth', *The Buckminster Fuller Institute*, 2017 <https://www.bfi.org/about-fuller/big-ideas/spaceshipearth> [accessed 16 April 2018].

[172] For their significance in the *MaddAddam* trilogy see Shelley Boyd, 'Ustopian Breakfasts: Margaret Atwood's MaddAddam', *Utopian Studies*, 26.1 (2015), 160–81 (pp. 174–76) <https://doi.org/10.5325/utopianstudies.26.1.0160>. For *The Handmaid's Tale* see Maria Christou, 'Food in Margaret Atwood's Dystopias', in *Eating Otherwise: The Philosophy of Food in Twentieth-Century Literature* (Cambridge: Cambridge University Press, 2017). For *Bluebeard's Egg* see Carol Merli, 'Hatching the Posthuman: Margaret Atwood's "Bluebeard's Egg"', *Journal of the Short Story in English*, 48 (2007), 2–9.

[173] R. Buckminster Fuller, *Operating Manual for Spaceship Earth* (Zurich: Lars Muller, 2017), p. 66.

This creates an equivalence between the Crakers and ourselves, with the provocative challenge that we must learn to fly or face destruction as we overwhelm Spaceship Earth with pollutants. A warning that this may be impossible is carried in the egg-like 'cylinder of brass' in "Time Capsule Found on the Dead Planet"; the cylinder reads 'Pray for us, who once, too, thought we could fly.'[174] According to the brief history of civilization encoded in that fictional time capsule, a history which like that of the *MaddAddam* trilogy closely parallels the history of our own civilization, in the third age money became 'out of control'. It consumes 'whole forests, croplands, and the lives of children', a quintessential description of excessive greed. The result is, in the fourth age, that the world is desertified: 'We made these deserts from the desire for more money and from despair at the lack of it.' Atwood wrote this short fiction in 2009, and it was published in *The Guardian* during the Copenhagen climate summit. The challenge of that short piece and of the *MaddAddam* trilogy is to avoid turning them into realities by failing to act now.

In Chapter Two I focus on transhumanism, including its depiction within the trilogy and how critics have either read the trilogy as endorsing or condemning the concept. This will entail looking at Atwood's concept of survival, her representation of neohumans, and reflecting on her view of human beings as shaped by our evolutionary heritage. I argue that Atwood resists transhumanist views, and returns to a humanism that precludes the radical genetic alteration of human beings as a solution to our current crises. The desire for an extended life span and particular biological enhancements are shown to depend on faulty socially-conditioned preferences that Atwood shows to be contemptible. The transhumanist desires of the pre-Flood world thus result in its destruction. Atwood thus argues that we can't escape the consequences of human greed by trying to escape from our embodied humanity; any solution must take what we already are as the basic grounds from which to work.

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[174] Margaret Atwood, *Other*, p. 230.

Chapter Three is a exploration of how genetic technologies similar to those endorsed by transhumanists are applied to food production in these texts. To do so, it is instructive to frame Atwood's representation of food in her children's fiction, in which a simplified concept of temperance is a central feature. By exploring temperance in these simpler instances, we can gain some insight into how Atwood's conception functions in more complex narratives. In the figure of the ChickieNob, we see how our excessive desire comes to distort the lives of other species. The ChickieNob also shows how disgust, which may seem to be a usefully appropriate response, is undermined by familiarity, rendering it unreliable as a basis for criticism. In the figure of the Pigoon, the trilogy returns to the notion of extremes, as these porcine creatures become instantiations of a symbolic cannibalism which is a recurring Atwoodian trope. Pigs and humans become mutual predators, and, as their desire becomes more selfish, humans are increasingly presented as "going Wendigo".

Chapter Four builds on the notion of temperance explored in the previous chapter by questioning the reading of the *MaddAddam* trilogy as creating examples of "mad science". A significant number of critics have responded to the trilogy as an excoriating satire of valorized science, and they see Crake as little other than a "mad scientist". This easy reading distorts the ethical power of the trilogy, but Atwood's fiction has a long history of unsettling the easy distinction between heroes and villains. It is necessary to take Crake's critique of the pre-Flood world seriously, because it is the critique of our world — Crake's mission is to save the earth from human corruption, so that some form of human life can continue. Not solely a misanthrope who believes humanity should be simply wiped away, Crake replaces humanity with modified descendants who are temperate by design; in doing so, Atwood shows that more is at stake in his depiction than first appears.

Chapter Five opens out from the trilogy to consider Atwood's own activism and commercialism, and tries to evaluate it against the standards set by her creative work. Atwood is particularly concerned with climate change, biodiversity, the place of art in society, and political freedoms. Engaging with this work — which has increasingly come to the forefront of her activities — is of vital importance. Using the virtue ethical reading developed across the thesis with the addition of the Atwoodian concept of witnessing, I examine Atwood's depiction of the activist God's Gardener sect, Atwood's twitter activism, and her launch of two public pledges. Atwood's testimony pierces the veil of cosy half-truths that we, the global prosperous, permit ourselves, and counsels us to practice desire-constraint if we are to avert disaster. I close with a brief consideration of Atwood's work since the trilogy, especially *The Heart Goes Last* (2015) and *Hag-Seed* (2016), both in terms of how they continue to explore the topics I have considered here, but also noting where they differ from the *MaddAddam* trilogy; I argue that temperance remains central to these. In doing so, I will use virtue ethics to illuminate how Atwood relies on an implicit notion of temperance in the *MaddAddam* trilogy. Her critique of the excessive greed that she represents as permeating the twenty-first century is shown to implicate a whole range of human activities as distorted: food, sexuality, political and social arrangements. These culminate in a choice to destroy humanity, but her insistence in the trilogy is that we can change the course of this future, if we choose to.

2 | Transhumanism

We live in extraordinary times: on the one hand, technologies of all sorts — biological, robotic, digital — are being invented and perfected by the minute, and many feats that would once have been considered impossible or magical are being performed. On the other hand, we are destroying our biological home at breathtaking speed: if we kill the sea it's game over for us as a species, since the sea produces 60-80% of the oxygen we breathe. On the third hand (for there's always a hidden hand), the democratic form of government we have extolled and promoted in the West for centuries is being undermined from within by super-surveillance technologies and the power of corporate money. When 1% of the population controls 80% of the wealth, you have a top-heavy social pyramid that's inherently unstable.[1]

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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?[2]

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The *MaddAddam* trilogy is set in an extraordinary world, a world filled with a menagerie of genetically modified lifeforms and grotesque human beings. According to Atwood's conception of speculative fiction, that extraordinary world 'is the world we already live in. The *MaddAddam* trilogy builds it out a little further, and then explores it. We already have the tools to create the MaddAddam world. But will we use them?'[3] I take the implicit

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[1] Margaret Atwood, 'Why I Wrote MaddAddam', *Wattpad*, 2013, pt. 4 <http://www.wattpad.com/24196534-why-i-wrote-maddaddam-part-1> [accessed 29 May 2014].

[2] Margaret Atwood, 'Perfect Storms: Writing Oryx and Crake', *Oryxandcrake.Co.Uk*, 2003, para. 7 <http://www.oryxandcrake.co.uk/perfectstorm.asp> [accessed 4 August 2014].

[3] Margaret Atwood, 'Why', pt. 4.

challenge of this question as a guide to my reading of the trilogy. Whether we read these texts as speculative fiction, building out from our present position, or as dystopian fiction, intended to show a worse society than our present, or as satire — equally concerned with political or social solutions 'which produce worse harm than the problems they set out to solve' — the generic expectations I established in the introduction exercise an important influence over how we interpret this question about the MaddAddam world.[4] To see the world of the trilogy as either incipient or present is to give us agency to change it if we choose. Atwood's larger point hinges on forcing us to see that it is we who are damaging the environment beyond repair, we who allow our democracies to be eroded, and we who allow gross inequality to persist. Atwood's trilogy suggests our society is already on the trajectory towards the MaddAddam world, which means that her formulation should be inverted: we have the tools to save ourselves, but we can choose not to use them. Thus it seems to me that Atwood's basic strategy in dealing with these issues will be to counsel some sort of restraint — which we can understand in terms of temperance and the exercise of practical wisdom — in the face of our desire for 'extraordinary' technologies, rather than to suggest embracing them in the hopes of finding a last minute way out. Sean Murray, reading the trilogy from an ecofeminist perspective, praises the trilogy for encouraging activism, but argues that the 'gender and environmental concerns at the heart of these novels surface in a fairly straightforward manner'; as I argue here, Atwood's reliance on temperance extends these concerns into a range of different areas which seem unrelated, and this is one way that virtue ethics allows us to both expand and to sharpen the green critique of the novel.[5] While temperance has much to

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4   Karen F. Stein, 'Margaret Atwood's Modest Proposal: The Handmaid's Tale', *Canadian Literature*, 148 (1996), 57–72 (p. 62).
5   Sean Murray, 'The Pedagogical Potential of Margaret Atwood's Speculative Fictions: Exploring Ecofeminism in the Classroom', in *Environmentalism in the Realm of Science Fiction and Fantasy Literature*, ed. by Chris Baratta (Newcastle: Cambridge Scholars Publishing, 2012), pp. 111–25 (p. 121).

say about these issues, it also speaks to intra-human relationships and the nature of the human constitution; Jimmy's alcoholism, inability to form meaningful relationships, and his lack of interest in the origins of his food, all connect to the broader societal greed that is expressed by the pre-Flood society. Looking at temperance allows us to follow these connections.

In this chapter, I will consider how Atwood depicts transhumanist aspirations, and the results of such aspiration which take the form of neohumans. Transhumanists see humanity as vulnerable to problems created by evolution, and they suggest that we should correct these problems by modifying ourselves at a genetic level, or using other advanced technological solutions. Atwood has made it clear, in book reviews, interviews, and articles, that she believes that the modification of human beings in this way is a mistake, and that such modifications have ideologically similar roots to totalitarianism. In her outline of our extraordinary times, it is clear that she connects genetic engineering and the transformation of human biology to wider concerns about the crooked operation of global capitalism, violence against women and against minorities, the exploitation of non-human animals and environments, and the erosion of democracy. But, as Atwood writes, a novel is not a treatise; the ethos of this trilogy is more complex than a jeremiad rebuttal of transhumanist aspirations. Its complexity offers us a nuanced way to think through these issues; moreover, this complexity is essential to resolving the moral status of neohumans, an issue which has inspired a broad range of critical positions in the scholarly literature. I will argue that Atwood's trilogy resists the idea that humanity is perfect; rather, in its current incarnation it resembles 'a giant slug eating its way relentlessly through all the other bioforms on the planet, grinding up life on earth and shitting it out the backside in the form of pieces of manufactured and soon-to-be-obsolete plastic junk'.[6] But the trilogy makes clear that altering our biology is not the solution to this problem; rather we must begin by changing our own

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[6] Margaret Atwood, *Oryx And Crake* (London: Virago, 2009), p. 243.

practical attitudes and by trying to enrich our lives with greater moral and aesthetic vision. Atwood's model for change is personal and gradual, not sweeping or millenarian.

First, I will set out the terminology used in this chapter, as there is no widespread consensus about the use of terms such as posthumanism and transhumanism. To complete this picture I turn to Atwood's non-fiction work, in which her opposition to transhumanism's attempt to "go beyond" the human is clear. Similarly, her statement of the centrality of the human also positions her as opposing some critical posthumanist concerns. Following this, I will look at how neohumans are depicted in the trilogy, and draw together what the texts represent them as being and doing. How are they created, and why? What systemic factors are involved in their creation, maintenance, and distribution? Are they more similar to human beings or non-human animals? How are they related to Atwood's depiction of human beings? After gathering this basic data together, I will focus on questions of survival, a theme which runs throughout Atwood's work, but which takes on a specific dimension in these ustopian speculative fictions because it ceases to concern the survival of individuals in the middle of a hostile natural environment such as 'the malevolent north', and is transformed into broader concerns about the survival of human life on the planet.[7] Finally I consider how Atwood's neohumans are positioned as a return to the palaeolithic. After *Oryx and Crake*, both subsequent volumes in effect re-wrote the ending of the MaddAddam world, and this has had important effects on the critical responses to the trilogy. The community which survives Atwood's apocalypse may be neohuman in body, but in the centrality of its storytelling traditions it retains its humanist nature.

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[7] To quote the subtitle of Atwood's lecture series on Canadian Literature, *Strange Things: The Malevolent North in Canadian Literature* (London: Virago, 2004).

Posthumanism and Transhumanism

In setting out my framework in the introduction to the thesis, I have tried to indicate the scope of the kinds of questions I am interested in pursuing in Atwood's *MaddAddam* trilogy. A substantial number of readers and critics have taken up very different stances from mine, and in doing so have introduced a number of terms relating to the definition and status of human beings that will be useful in the argument to come. At the start of this chapter, it is important to separate out two such terms: posthumanism and transhumanism.

Growing from a wide variety of allied schools of thought, the general aim of posthumanists can be expressed as the attempt to understand the situation of human beings in the twenty-first century, given massive technological and environmental change. Francesca Ferrando regards posthumanism as an umbrella term, which shelters '(philosophical, cultural, and critical) posthumanism, transhumanism (in its variants as extropianism, liberal and democratic transhumanism, among other currents), new materialisms (a specific feminist development within the posthumanist frame), and the heterogeneous landscapes of antihumanism, posthumanities, and metahumanities' beneath its capacious tines.[8] Many thinkers within these movements are inspired by animal studies and science and technology studies, with a strong connection to various forms of literary theory and Continental philosophy, in particular to the works of Michel Foucault, Jacques Derrida, Félix Guattari and Gilles Deleuze. Rosi Braidotti delineates the separation between some of these branches of thought in a useful way.

> I see three major strands in contemporary posthuman thought: the first comes
> from moral philosophy and develops a reactive form of the posthuman; the
> second, from science and technological studies, enforces an analytic form of

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[8] Francesca Ferrando, 'Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms', *Existenz*, 8.2 (2013), 26–32 (p. 26).

the posthuman; and the third, from my own tradition of anti-humanist philosophies of subjectivity, proposes a critical post-humanism.[9]

These can be labelled as the humanist, the transhumanist, and the critical posthumanist positions respectively.

Critical posthumanism designates an attempt to reformulate the idea of human subjectivity in a way that is inclusive of new discoveries in science, which suggest that our current model is insufficient. In doing so, it draws on animal studies to dissolve the conceptual differences between human beings and non-human animals. These supposed differences have perpetuated the commercial exploitation of non-human animals depicted so vividly in this trilogy of novels. Critical posthumanism also draws on science and technology studies, and, via Donna Haraway's figure of the cyborg, posthumanism dissolves the conceptual differences between human beings and technologies which are a vital part of their functioning.[10] Posthumanism in general refuses binary thinking, and seeks to reformulate concepts and categories using other structures and images of thought — the rhizome of Deleuze and Guattari has been one fertile example. Posthumanism can be seen as building on the work of postcolonial and feminist thinkers in criticising the entrenched rational European Man as being the sole defining criterion of what it means to be human.[11] Simultaneously, posthumanism advocates seeing human consciousness in a radically different way, namely seeing it as distributed across a number of prosthetics, including the written word and computer technologies. Pramod Nayar summarises this constellation of thought when he

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[9]   Rosi Braidotti, *The Posthuman* (Cambridge: Polity Press, 2013), p. 38.
[10] Donna Haraway, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century', in *Simians, Cyborgs and Women: The Reinvention of Nature* (New York, NY: Routledge, 1991), pp. 149–81 <https://wayback.archive.org/web/20120214194015/http://www.stanford.edu/dept/HPS/Haraway/CyborgManifesto.html> [accessed 11 May 2017]. Haraway has also been influential in the animal studies stream of posthumanism, such as in *When Species Meet* (Minneapolis, MN: University of Minnesota Press, 2008).
[11] Braidotti, p. 26.

writes that posthumanism involves 'a radical decentring of the traditional sovereign, coherent and autonomous human in order to demonstrate how the human is always already evolving with, constituted by and constitutive of multiple forms of life and machines.'[12] Even this broad definition does not capture the full range of posthumanist theories and perspectives, as theoreticians such as Braidotti work from strongly antihumanist positions, and others, such as Cary Wolfe, see it as a reformulation of humanist concepts further reflecting work done in animal studies and related areas. Indeed, for Wolfe, posthumanism is 'not a rejection of humanism, and it's not a transcendence of humanism, and it's not the much cooler smarter thing that comes after humanism', but rather it takes a number of the 'desires and imperatives of humanism, many of which are admirable' and tries to create the theoretical and philosophical framework necessary for those imperatives to succeed.[13]

Many of these concerns resonate strongly with the *MaddAddam* trilogy. The texts unsettle the boundaries between human and non-human life in radical and challenging ways; critics such as Melissa Roddis have argued that the texts positions *Homo sapiens* as 'ignoble', and that, by reading the Crakers as 'the posthuman, the integrated chimera, the diverse, adapted hybrid' *Oryx and Crake* ceases to be a dystopia, and can instead be read as 'an eco-posthuman utopia'.[14] This boundary-crossing is achieved primarily through biotechnology — advanced digital technologies, though they are present, are not the focus of the trilogy.[15]

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[12] Pramod K. Nayar, *Posthumanism* (Cambridge: Polity Press, 2013), p. 2.

[13] Cary Wolfe, *Cary Wolfe on Post-Humanism and Animal Studies*, 2012 <https://www.youtube.com/watch?v=5NN427KBZlI> [accessed 10 May 2017]; See also Cary Wolfe, *What Is Posthumanism?* (Minneapolis, MN: University of Minnesota Press, 2009); and *Zoontologies: The Question of the Animal*, ed. by Cary Wolfe (Minneapolis, MN: University of Minnesota Press, 2003).

[14] Melissa Roddis, ''Someone Else's Utopia': The Eco-Posthuman "Utopia" of Margaret Atwood's Oryx and Crake', *Writing Technologies*, 5 (2013), 19–35 (pp. 29–30).

[15] Indeed, Marcy Galbreath suggests that the trilogy exhausts the 'the self-contaminating death of informatics', and argues that 'in the extinction of humanity, the cyborgian tools for creating the digitized posthuman are sacrificed as well' in 'Genomic Bodies: Un-Natural Selection, Extinction, and the Posthuman in Atwood's *Oryx and Crake*' (presented at the Zoontotechnics, Cardiff University, 2010).

Atwood's work represents a career-long investigation into human subjectivity.[16] Accordingly, critics drawing on posthumanism argue that Atwood raises questions about the adequacy of the definition of "human" in the trilogy; similarly, such critics suggest that she explores the pervasiveness of technology, the oppression of marginalised groups, the widespread commercialisation of all life, and the critique of neoliberalism, other issues that are central to critical posthumanists such as Braidotti and Wolfe.[17] In the terms of his argument concerning the derivation of human monstrosity from anthropocentrism, Chung-Hao Ku writes that the trilogy 'questions — if not totally confounds — the fine line between humanity and monstrosity with respect to their biological morphology and immanent hierarchy.'[18] In a related insistence on the bodily, N. Katherine Hayles has written that 'the body is the net result of thousands of years of sedimented evolutionary history, and it is naive to think that this history does not affect human behaviours at every level of thought and action'; Atwood interprets this same history of complex embodiment in her own way, arguing that 'attention must be paid to the basic physical/chemical ground of our existence' if we are to understand ourselves, and secure our long-term future on Earth.[19] Atwood's insistence on seeing the trilogy as orientated to historic and scientific fact is one way of focusing this attention, and

[16] For discussion of subjectivity in her earlier works, see *Margaret Atwood: Writing and Subjectivity*, ed. by Colin Nicholson (New York, NY: St Martin's Press, 1994).

[17] See Valeria Mosca, 'Crossing Human Boundaries: Apocalypse and Posthumanism in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*', *Altre Modernità*, 2013, 38–52; Amelia Defalco, '*MaddAddam*, Biocapitalism, and Affective Things', *Contemporary Women's Writing*, 11.3 (2017), 432–51 <https://doi.org/10.1093/cww/vpx008>; Eduardo Marks de Marques, 'Children of Oryx, Children of Crake, Children of Men: Redefining the Post/Transhuman in Margaret Atwood's "Ustopian" *MaddAddam* Trilogy', *Aletria: Revista de Estudos de Literatura*, 25 (2016), 133 <https://doi.org/10.17851/2317-2096.25.3.133-146>; and Eduardo Marks de Marques, 'Human After All? Neo-Transhumanism and the Post-Anthropocene Debate in Margaret Atwood's *MaddAddam* Trilogy', *Revell - Revista De Estudos Literários Da UEMS*, 3.17 (2017), 178–90.

[18] Chung-Hao Ku, 'Of Monster and Man: Transgenics and Transgression in Margaret Atwood's *Oryx and Crake*', *Concentric: Literary and Cultural Studies*, 32.1 (2006), 107–33 (p. 109).

[19] Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (Chicago, IL: University of Chicago Press, 1999), p. 284; Margaret Atwood, 'When The Lights Go Out: Human Values After The Collapse Of Civilisation', in *Foragers, Farmers, and Fossil Fuels: How Human Values Evolve*, ed. by Stephen Macedo (Princeton, NJ: Princeton University Press, 2015), p. 205.

here, again, we can see that the identity of the trilogy as speculative fiction is implicated. If we read the trilogy speculatively, we, the readers, are positioned as complexly embodied selves intertwined with prosthetic technologies and our sedimented evolutionary history. If we instead read the trilogy through the radical alterity of sf, these selves are immediately more distant to us.

The trilogy certainly speaks to concerns raised by critical posthumanists; however, in its mode of critique and in its resolution of the plot the trilogy returns to an unquestionably humanist position. Amelia Defalco describes a split in responses to the trilogy, with one group (Veronica Hollinger and J. Brooks Bouson) arguing that Atwood affirms humanist principles and rejects hybridity, and a second group (Grayson Cooke and Ralph Pordzik) who affirm posthumanist readings of the trilogy.[20] While Defalco veers towards the posthumanist perspective, I veer towards the views of Hollinger and Bouson. Atwood has written that 'We used to hear quite a lot about "the human spirit", and I'm not giving up on that.'[21] I interpret this to be a broader claim about Atwood's position regarding human nature: I see it as underpinning her view of narrative art as an ethical guardian, and I see it as underpinning her commitment to a picture of a good society which recognises 'the dignity of her fellow human beings and the importance of good relations among them as well as between them and the rest of creation.'[22] Thus Diana Brydon reads *Oryx and Crake*, not primarily as a 'critique of science going too far but, rather, of humanity losing its defining power of either a national or a global ethic', revealing how Atwood finds the 'posthuman mode of being […] deficient'.[23] Hannes Bergthaller, drawing on Peter Sloterdijk's "Rules for the Human Zoo" ("Regeln für

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[20] Defalco, 'MaddAddam', pp. 435–36.
[21] Margaret Atwood, 'Lights', p. 203.
[22] Theodore F. Sheckels, *The Political in Margaret Atwood's Fiction: The Writing on the Wall of the Tent* (London: Routledge, 2016), loc.144.
[23] Diana Brydon, 'Atwood's Global Ethic: The Open Eye, The Blinded Eye', in *Margaret Atwood: The Open Eye*, ed. by John Moss and Tobi Kozakewich (Ottawa, ON: University of Ottawa Press, 2006), pp. 447–56 (pp. 451, 453).

den Menschenpark"), argues that in *Oryx and Crake* and *The Year of the Flood*, humanist techniques of education and storytelling re-emerge as necessary to prevent human beings from rendering themselves extinct. On this view, what we learn from reading the first two books in the trilogy is that

> ethical behaviour is something that requires practice and self-discipline. The reading of fiction, it appears, might be a way of exercising such discipline — or at least of honing our discernment in such matters. This would be humanism understood in its anthropotechnological dimensions, as a form of self-domestication.[24]

Bergthaller's conclusion is that Atwood is 'retrenching to a qualified humanism informed by evolutionary biology and disenchanted with human nature.'[25] This view was further corroborated with the release of *MaddAddam* in 2013, which placed increasing emphasis on fiction as the primary way of 'honing our discernment'. To some extent, Tony Davies captures these qualities of the humanism that Atwood's texts represent:

> it should be clear by now that all these prospectives for post-humanity, like the antihumanisms […], serve unmistakably humanist, indeed enlightenment, ends of understanding and emancipation. Humanism can be historicised, critiqued, deconstructed, pluralised, held to account, but it is not yet ready, it seems, to be left behind: a chastened humanism, to be sure, shorn of its swagger and self-righteousness, its ears still ringing with Nietzschean mockery, its conscience troubled by ancestral guilt, but a kind of humanism nonetheless.[26]

Thus, while I see critical posthumanism as offering important correctives to the critical enterprise, both in general and within Atwood's trilogy, I do not see it as replacing humanist models. Humanism continues to be reinvented, for instance in Edward Said's complexly

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[24] Hannes Bergthaller, 'Housebreaking the Human Animal: Humanism and the Problem of Sustainability in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*', *English Studies*, 91.7 (2010), 728–43 (p. 741) <https://doi.org/10.1080/0013838X.2010.518042>.

[25] Bergthaller, p. 729.

[26] Tony Davies, *Humanism*, New Critical Idiom, 2nd Edition, Kindle (Abingdon: Routledge, 2008), loc.2361.

humanist legacy,[27] and in Paul Gilroy's planetary humanism.[28] Atwood rejects posthumanist thought to the extent that it tries to eject the human as an ethical term; the "human spirit" remains central for Atwood. One of Atwood's achievements in the text is reconceptualising human nature in a new way, and the virtue ethics reading helps us to understand how and why this is important.

Transhumanism has very different goals to critical posthumanism. Transhumanists such as Max More, Nick Bostrom, David Pearce, Allan Buchanan, FM-2030 (born as Fereidoun M. Esfandiary), Hans Moravec, Ray Kurzweil, Aubrey de Grey, and Giuseppe Vattino, seek to improve human lives by transforming human biology using various technologies to enhance human biology. This process transforms them from humans into posthumans, where the "post-" has the strong implication of following or succeeding from. To prevent confusions with critical posthumanism, I will instead use the term "neohuman" to describe such modified or enhanced human beings; rendered thus, the goal of transhumanists is to become neohuman. More depicts transhumanism as originating in 1990, in his *Principles of Extropy*.[29] This may — more accurately — be characterised as the beginning of the transhumanist movement, and an attempt to apply transhumanist theories in practice and politically. Other proposed dates for the birth of transhumanism include the founding of the Alcor Society for Solid State Hypothermia in 1972, or with the work of FM-2030 in the 1960s. A more rigorous approach was taken by Nick Bostrom, who argues for a long history of thought which can be understood as contributing to transhumanism, or originating from similar

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[27] For further discussion of Said's humanism, see Edward Said, *Humanism and Democratic Criticism* (London: Palgrave Macmillan, 2004); R. Radakrishnan, 'Edward Said's Literary Humanism', *Cultural Critique*, 2007, 13–42; W. J. T. Mitchell, 'Secular Divination: Edward Said's Humanism', *Critical Inquiry*, 31.2 (2005), 462–71 <https://doi.org/10.1086/430975>; and *Conflicting Humanities*, ed. by Rosi Braidotti and Paul Gilroy (London: Bloomsbury, 2016).

[28] Paul Gilroy, *Against Race: Imagining Political Culture Beyond The Colour Line* (Cambridge, MA: The Belknap Press, 2000).

[29] Max More, 'The Philosophy of Transhumanism', in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Natasha Vita-More and Max More (Chichester: John Wiley & Sons, 2013), p. 5.

impulses; read as such, transhumanism is not a radical departure from humanity as previously understood, but rather a flowering of a more general human trait:

> The human desire to acquire new capacities is as ancient as our species itself. We have always sought to expand the boundaries of our existence, be it socially, geographically, or mentally. There is a tendency in at least some individuals always to search for a way around every obstacle and limitation to human life and happiness.[30]

More, Bostrom, de Grey, and other transhumanists respond to this broad goal of "expanding the boundaries of our existence" in very different ways, and support different efforts to pursue it. One major strand — widely regarded as the most significant strand — of transhumanism focuses on "life extension", where such extension is understood as a "healthspan", the number of years one can remain active and healthy, not merely the number of years one remains alive. The term makes up part of the current name of a transhumanist cryonics charity, Alcor Life Extension Foundation, of which many of the aforementioned transhumanists are members — Max More is currently the president of the foundation.[31] A second major area of emphasis for transhumanists is extending current human biological capabilities. Physical enhancements are the paradigmatic case in this regard: for instance, increasing muscle strength, or resistance to infection. These enhancements are understood as amplifications of existing human abilities, but the technologies for amplifying these abilities have frequently grown out of therapeutic techniques, designed to remedy deficiencies in, say, a person's leg muscles or their immune system.[32] A third area of transhumanist thought

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[30] Nick Bostrom, 'A History of Transhumanist Thought', in *Academic Writing Across the Disciplines*, ed. by Michael Rechtenwald and Lisa Carl (New York, NY: Pearson Longman, 2011), para. 1 <http://www.nickbostrom.com/papers/history.pdf> [accessed 20 July 2017].

[31] Cryonics is the term for the preservation of dead bodies with the hopes of one day reviving them; cryogenics is a more general term for the engineering of low temperatures.

[32] See Michael Sandel, *Case against Perfection* (Cambridge, MA: Harvard University Press, 2009); and John Harris, 'Enhancements Are a Moral Obligation', in *Human Enhancement*, ed. by Julian Savulescu and Nick Bostrom (Oxford: OUP, 2011), pp. 131–54 for further discussion on the distinction between therapy and enhancement.

relevant to the discussion of Atwood's neohumans is the addition of new capabilities, currently lacked by human beings, and more radical aesthetic alterations of the human body. This is known as morphological freedom, the principle that one is free to alter one's biology; after all, it is *my* body. One of the main currents of transhumanist thought which champions morphological freedom, Extropianism, led by Max More and Natasha Vita-More, has historically been identified as being right libertarian in orientation, though James Hughes argues that the majority of transhumanists may in fact be left-leaning.[33]

Some of the complexities of these terms having been noted, I will use them as follows in my argument going forward:

Posthumanism

I reserve this term to designate thinkers and groups of thinkers who argue for the decentring of the human in favour of a wider picture of subjectivity. I will endeavour, where reference is made to specific thinkers, to modify posthumanism in the relevant way to make clear the specific posthumanism at issue.

Transhumanism

I reserve this term for those whose aim is to transform themselves — or *Homo sapiens* as a group — into neohumans, via enhancements of various biomedical kinds, but primarily through genetic enhancements. Under such a label I subsume thinkers as diverse as More and Vita-More, de Grey, Bostrom, and Buchanan. It also designates such thinkers as part of an active political movement which seek to legalise and support such enhancement practices.

Neohuman

I reserve this term for talking about species in these novels, or in similar novels, who are genetically related to human beings but have been altered by genetic manipulation in some way. They are neohuman in the sense of arising chronologically after the speciation of *Homo sapiens*. In Atwood's texts these include the Crakers and the Pigoons, but not the *H.*

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[33] Hallvard Haug discusses the political characterisation of transhumanist thinkers in 'Engineering Humans: Cultural History of the Science and Technology of Human Enhancement' (unpublished PhD, Birkbeck, University of London, 2016), p. 203 <http://bbktheses.da.ulcc.ac.uk/210/> [accessed 16 October 2017]; he remains sceptical of Hughes's claim.

sapiens who survive the Waterless Flood and that are sometimes called "two-faces" in the trilogy.

Mother Nature: The Tyranny of Ageing and Death

> The desire to be superhuman results in the loss of whatever small amount of humanity you may still retain.[34]

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Besides the *MaddAddam* trilogy, Atwood has written a number of essays and reviews in which she expresses her position regarding the prospect of the radical transformation of the human by technological or genetic means. This provides a starting point for the claim that Atwood's texts do not endorse the post-apocalyptic solution to the problems raised in the dystopian pre-Flood world.

One key instance of Atwood's opposition can be found in a review of Bill McKibben's *Enough: Staying Human in an Engineered Age* (2003). McKibben, one of the leading environmentalists of the United States, has also been labelled a bioconservative because of his opposition to the use of radical changes to human biology. The main thesis of *Enough* is that genetic modification threatens human agency, and will cause psychological harms to children born with genetic modifications. McKibben vividly portrays a sixteen-year-old girl who suffers a breakdown because she cannot distinguish between her experiences; is she kind because she is kind, or is she kind because her parents selected her genetics for sociability?[35]

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[34] Margaret Atwood, *Strange*, p. 12.
[35] Critics of McKibben's argument point to his wholesale acceptance of genetic determinism as a weakness, as well as his embracing of "the more fanciful claims of biotechnology enthusiasts", as in F. Chessa, 'Enough: Staying Human in an Engineered Age', *Journal of Medical Ethics*, 30.6 (2004), e8–e8 <https://doi.org/10.1136/jme.2003.006312>; and Finn Bowring, 'Enough: Genetic Engineering and the End of Human Nature by Bill McKibben', *The Independent*, 21 June 2003 <http://www.independent.co.uk/arts-entertainment/books/reviews/enough-genetic-engineering-and-the-end-of-human-nature-by-bill-mckibben-109753.html> [accessed 8 July 2018].

In her laudatory review of the book, Atwood joins McKibben in rebutting transhumanist claims and ultimately concludes on the 'Blakean' reflection that 'perhaps Infinity can be seen in a grain of sand and Eternity in an hour'.[36] Her only concern with McKibben's position in *Enough* is that she believes that McKibben is too optimistic about our probable future — 'he is not a novelist or a poet, and thus does not descend all the way into the foul rag-and-bone shop of the heart', she writes, he 'doesn't go all the way down, into the dark realms of envy, cheating, payoffs, and megalomaniacal revenge'; this is in part what Atwood's review supplies to the argument of the book.[37] Atwood explicitly argues that transhumanists are greedy, and condemns their excessive desire.

Within the review, Atwood takes particular aim at Max More's "A Letter to Mother Nature", which is quoted by McKibben in *Enough*. More was the president of the Extropy institute until its closure in 2006; now he is the president of the Alcor Life Extension Foundation, the world's leading cryonics firm. In the "Letter", More, in the person of 'we humans', writes to an anthropomorphised conception of nature, initially praising her efforts with the creation of human beings. However, in the second paragraph, More turns to failures that Mother Nature has failed to correct:

> Mother Nature, truly we are grateful for what you have made us. No doubt you did the best you could. However, with all due respect, we must say that you have in many ways done a poor job with the human constitution. You have made us vulnerable to disease and damage. You compel us to age and die — just as we're beginning to attain wisdom. You were miserly in the extent to which you gave us awareness of our somatic, cognitive, and emotional processes. You held out on us by giving the sharpest senses to other animals.

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[36] Margaret Atwood, 'Arguing Against Ice Cream: Enough: Staying Human in an Engineered Age by Bill McKibben', in *In Other Worlds: SF and the Human Imagination* (London: Virago, 2011), pp. 128–41 (p. 140).

[37] Margaret Atwood, 'Arguing', pp. 132, 134. The phrase "the foul rag and bone shop of the heart" is a quotation from the last line of William Butler Yeats' "The Circus Animals' Desertion", published in *Last Poems* (1939).

You made us functional only under narrow environmental conditions. You gave us limited memory, poor impulse control, and tribalistic xenophobic urges. And, you forgot to give us the operating manual to ourselves![38]

The abrupt turn in the second sentence of this paragraph suggests that More's true gratitude is somewhat insincere. The attempt at gratitude makes this paragraph read as bitter — betrayed even — as if let down by one's parent. There is a curious streak of envy (of other creatures with heightened senses) and of fear (of vulnerability). The form of the "Letter" is supposed to encourage us to believe that Mother Nature would offer her approval for the latest endeavour of her 'ambitious human offspring', as a way of furthering her own project of development. This is undercut by the sudden transition, at the end of the fifth paragraph, into a series of numbered "Amendments", which signal a transition from the letter-conceit into the mode of the political-legal manifesto. These amendments include expanding 'our perceptual range', improving our 'neuronal organisation', supplementing our neocortex with a 'metabrain', achieving 'mastery' over our genes, 'cautiously yet boldly' reshaping our emotions, and integrating our technology into our bodies. However, the most significant amendment is the first, which issues the rallying cry for the piece: 'We will no longer tolerate the tyranny of ageing and death.'[39] Rhetorically confused, the "Letter" fails to make its case, but offers another platform for repeating key transhumanist goals. This reflects its original purpose, which was to be read at the EXTRO 4: Biotech Futures conference in Berkeley, California.[40]

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[38] Max More, 'Letter to Mother Nature', in *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*, ed. by Max More and Natasha Vita-More (Chichester: John Wiley & Sons, 2013), p. 449.

[39] More, 'Letter to Mother Nature', p. 450.

[40] Max More, 'Max More's Strategic Philosophy: A Letter to Mother Nature: Amendments to the Human Constitution', *Max More's Strategic Philosophy*, 2009 <http://strategicphilosophy.blogspot.com/2009/05/its-about-ten-years-since-i-wrote.html> [accessed 8 July 2018].

Atwood responds to the "Letter" on a number of levels. Atwood notes that More's name was 'chosen by himself', and takes the choice of 'more' as significant.[41] Indeed, Atwood's review plays somewhat on the tension between McKibben's title, *Enough*, and More's name. In a brief 'digression', she selects two 'emblematic' uses of "more" to set up the following discussion.

> The first is, of course, the echoing "more" pronounced by Oliver Twist when he is being starved in a foundlings' home by venal officials. That "more" is a legitimate response to "not enough". It's the "more" of real need, and only the hard-hearted and wickedly self-righteous Mr Bumbles of this world can be outraged by it. The second "more" is in the film *Key Largo* […]. The crook is asked what he wants, and he doesn't know. Humphrey knows, however. "He wants more," he says. And this is what the crook does want: more, and more than he can possibly use; or, rather, more than he can appreciate, dedicated as he is to mere accumulation and mere power.[42]

Throughout the review, Atwood's position is that transhumanist claims are of a kind with the second "more", which, in itself, acts to drown out the legitimate "more" which we might otherwise hear and attend to. Balancing between rejecting the more of *Key Largo* and becoming a Mr Bumble enlists us in the project of forming a balanced temperance. Atwood approvingly cites the epigraph of *Enough*, 'Enough is as good as a feast', and this speaks to her commitment to a temperance as a key virtue for navigating the twenty-first century. As part of this characterisation of "more", she also describes the 'greedy little Scrooge in all of us', a metaphor that she would go on to expand into her book-length assessment of the concept of debt, *Payback: Debt and the Shadow Side of Wealth* (2008). Adopting the figure of Ebenezer Scrooge from Charles Dickens's *A Christmas Carol* (1843), Atwood's "Scrooge

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[41] Max More was born Max T. O'Connor, and changed his name to reflect his transhumanist values in 1989, noted in Brian M. Stableford, *Science Fact and Science Fiction: An Encyclopedia* (Abingdon: Routledge, 2006), p. 401.

[42] Margaret Atwood, 'Arguing', p. 130.

Nouveau" is visited not by the spirits of Christmas, but rather by the spirits of Earth Day, past, present, and future. *Payback* concludes with a survey of all that Scrooge owes to nature, including his body:

> Scrooge feels a little sick. He's never pictured his own body as being borrowed, and he certainly doesn't like to think of it as having to be paid back in such a distressing way. It's his to hold in perpetuity and to improve, like a piece of real estate. He's made quite a big investment in it! He understands there are some bioengineers working on the Immortality Project right now, and as soon as they've got real results, he'll buy in. Why shouldn't his body keep on working for him forever?[43]

Scrooge's attitude reflects a kind of Cartesian dualism criticised from a wide range of different perspectives within literary theory and continental philosophy. Scrooge describes his body as an "employee" subordinated to the "real" Scrooge, and it can be made to work for him in perpetual bondage provided he invests in the right technology start-up. Scrooge's acquisitiveness, and his willingness to put all his thought and perceptions into capitalist metaphors, align him with biocorporations in the pre-Flood portion of the *MaddAddam* trilogy. Ashley Winstead suggests that the visions provided by the Spirit of Earth Day Future make *Payback* a counterpart to the *MaddAddam* trilogy, and, further, that Atwood's returning to this vision of the future indicates its importance and perhaps also its likelihood.[44] The Scrooge narrative also has significant connections to the beliefs of the God's Gardeners, which I will discuss in the final chapter.

Atwood considers two further problems with the "Letter"; the shortcomings in human beings identified by More, and the amendments proposed to remedy them. Only one of the shortcomings that More mentions — 'xenophobic tribalistic urges — reflects a concern about

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[43] Margaret Atwood, *Payback: Debt and the Shadow Side of Wealth* (London: Bloomsbury, 2009), p. 181.

[44] Ashley Winstead, 'Beyond Persuasion: Margaret Atwood's Speculative Politics', *Studies in the Novel*, 49.2 (2017), 228–49 (p. 236) <https://doi.org/10.1353/sdn.2017.0018>.

moral faculties; the other concerns (vulnerability to disease, death, poor senses compared to other animals) reflect dissatisfaction with the realities of physical existence. She detects in More's Amendment a spirit of 'dissing Mother Nature', and, as Nature is depicted as female, this is further imbued with a sense of misogyny.

> There's been quite a lot of chat about the shortcomings we've had to put up with thanks to Mother Nature, the dirty treacherous cow, and this is the not-so-cleverly-hidden subtext of a lot of brave-new-world thinking. These folks hate Nature, and they hate themselves as part of it, or her.[45]

Though in many ways Atwood sees Orwell as a more direct influence on her — "George Orwell: Some Personal Connections", also collected in *In Other Worlds*, explains why — the *MaddAddam* trilogy seems to reflect more closely the themes of Huxley's *Brave New World*, namely the commodification of human life, and the endless quest for pleasures of new and different kinds. Atwood sees *Brave New World* as 'a satirical comedy, with events that were unlikely to unfold in exactly that way. ("Orgy-Porgy," indeed.)'.[46] Brave-new-world thinking stands in here for an instance of the negative "more" that Atwood examines, one that interprets more in terms of longevity and physical attractiveness. Such thinking ignores the darker sides of human nature — and it's exactly this trend that Atwood's review seeks to combat, as her marking of limits of McKibben's optimism make clear.

Atwood's evaluation of More's rhetoric in the "Letter" as implicitly misogynist reflects a broader challenge to transhumanism, which concerns the scope of distribution of radical alterations that transhumanists seek to make in the human populace. To whom will these radical alterations be available? While transhumanists couch their aspirations in broad terms, as in More's speaking on behalf of all the 'ambitious human offspring', significant differences exist between transhumanists on the libertarian right such as More, and

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[45] Margaret Atwood, 'Arguing', pp. 135–36.
[46] Margaret Atwood, 'George Orwell: Some Personal Connections', in *In Other Worlds: SF and the Human Imagination* (London: Virago, 2011), p. 143.

transhumanists such as Nicholas Agar or Alan Buchanan who stress that enhancements can only take place within a society that has already achieved a proper democratic parity; the history of recent decades suggest that such an apotheosis of the democratic project is not approaching any time soon. If radical enhancement is practised within a free-market society, enhanced children will become the "GenRich", while we, 'the six billion people already on the planet' or 'the ten billion projected for the year 2050' will be "GenPoor".[47] Gerry Canavan touches on this point in the title of his article "Hope, But Not For Us". The GenRich-GenPoor society is exactly that depicted in the *MaddAddam* trilogy, where unscrupulous biotechnology companies exploit human fears and vulnerabilities for profit.

How More's extropian philosophy, wedded as it is to the commercial success of a cryonics company, can respond to this challenge is unclear. Atwood's review suggests that

> Inventing even a small amount of belief in [a cryonics] scheme puts you in the same league as those who happily buy the Brooklyn Bridge from shifty-looking men in overcoats, for the company — yes, it would be a company — in charge of your frozen head would need to be not only perennially solvent — bankruptcy would equal meltdown — but also impeccably honest.[48]

Her own depiction of cryonics in the *MaddAddam* trilogy revels in the parody of this corporate misadventure; needless to say CryoJeenyus, the fictional Alcor, is hardly impeccably honest. ('[A] couple of years later they toss you out the back door and tell your relatives there was a power failure', Crake remarks.) In *MaddAddam*, Ren reports a joke from the children at HelthWyzer High, which suggests that the neocortex tissue transplanted into the Pigoons comes from the now empty shells of the frozen heads at CryoJeenyus.[49] An extended analysis of the rhetoric employed by company is presented in the novel, when Zeb

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[47]   Margaret Atwood, 'Arguing', p. 138.
[48]   Margaret Atwood, 'Arguing', p. 131.
[49]   Margaret Atwood, *MaddAddam* (London: Virago, 2014), p. 351.

murders the Rev, and he and Adam One impersonate CryoJeenyus employees to escort his

liquefied remains:

> If such a life-suspending event occurs, the client is flash-frozen immediately in the Frasket and shipped to CryoJeenyus for re-animation later, once CryoJeenyus has developed the biotech to do that.[50]

> As far as anyone else was concerned, this was just a routine dead-run. Or rather, *a ferrying of the subject of a life-suspending event from the shore of life on a round trip back to the shore of life*. It was a mouthful, but CryoJeenyus went in for that kind of evasive crapspeak. They had to, considering the business they were in: their two best sales aids being gullibility and unfounded hope.[51]

Cryonics, in the *MaddAddam* trilogy, is a key technology by which the otherwise powerful

rich Compound dwellers are separated from their money: they're 'doing a brisk business,

their stock's high', Jimmy says.[52] The powerful will do anything to stave off death, and if

there isn't a biomedical answer at present, paying someone to "save" you until one appears is

the next best solution. Atwood thus places CryoJeenyus as a paradigmatic example of the

exploitative capitalist model predicated on excessive greed; in turn this suggests that

transhumanists are assisted in furthering their aims by a potent mixture of gullibility and

unfounded hope. If we read the novel as testing a range of survival strategies (such as green

education, radical genetic alteration, and cryonic suspension), cryonics performs the worst;

Snowman thinks that 'he'd like to have been a fly on the wall when the lights went out and

two thousand frozen millionaires' heads awaiting resurrection began to melt in the dark.'[53]

Cryonics, like the Future Library project, is hopeful in the sense that it posits a society which

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[50] Margaret Atwood, *MaddAddam*, p. 376.
[51] Margaret Atwood, *MaddAddam*, p. 384.
[52] Margaret Atwood, *Oryx*, p. 345.
[53] Margaret Atwood, *Oryx*, p. 264.

continues to progress for its fruition; unlike the Future Library, the technology that keeps it running is expensive, complex, and prone to failure.

In the short piece "Cryogenics: A symposium", included in *In Other Worlds*, five friends are at a dinner party.[54] A, a cryonics enthusiast, explains the process, and the other four offer a number of objections; on top of those presented in the trilogy, C suggests that the people of the future will unfreeze A's head,'hook it up to a monitor, and run your most painful memories on it as cheap entertainment'; and B suggests that, after the break down of the environment, humans will form 'roving bands of brutal scavengers', who will find the frozen head, and, in a fit of cannibalism, consume it. The group decry B, the 'realist' view, and the piece seems to conclude that cryogenics is not unreasonable, given the 'market forces at work'. However, this short dialogue links together the diners' personal practices with the ultimate breakdown of the environment, and hence society. B points out that the Chilean sea bass they're eating is unsustainable: 'They're actually strip mining the entire ocean'. D, the host, apologises, but simply 'forgot' her principles when buying the meal. Likewise, E has brought 'slave-worker poison-sprayed artificially ripened grapes'. Later, D anticipates B's disapproval of their coffee, pre-emptively telling the table that it is 'shade grown'. I discuss the importance of shade-grown coffee as one of Atwood's moral touchstones in Chapter 5. These middle-class dinner party intrusions generate the speculative fiction effect for this short dialogue, as the spectres of cryonic future are implicit in the dietary fare of the dinner party guests. The hope that 'the environment and all that stuff will be through the downturn and things will be more straightened out', expressed by A, is eroded by the choices they make.

In the *MaddAddam* trilogy, those in pursuit of new skins, larger penises, or greater height go to the Street of Dreams, where they are bombarded with advertising: 'this is where

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[54] Margaret Atwood, *Other*, pp. 217–20.

our stuff turns to gold', Crake says.[55] Infantade, Foetility, and Perfectababe are three companies in the trilogy, located on the Street of Dreams, that specialise in genetically modifying children, whom, Jimmy imagines, Ramona and Jimmy's father will consult in the manufacture of Jimmy's new brother. Marinette Grimbeek sees a purposefully grim irony in Infantade and Foetility; she connects Infantade to intifada and registered trademarks like '*Lucozade®*', and she suggests that Foetility 'recalls both *fertility* and *futility* — antonyms in the context of fertility agencies'; indeed, this makes Foetility a contranym.[56] I would add that Infantade visually approximates to infanticide, which closely parallels the Foetility-futility pairing. Jimmy considers the fate of such a modified child, and in doing so portrays Atwood's version of McKibben's central argument:

> Terrific, thought Jimmy. They'd have a few trial runs, and if the kids from those didn't measure up they'd recycle them for the parts, until at last they got something that fit all their specs — perfect in every way, not only a math whiz but beautiful as the dawn. Then they'd load this hypothetical wonderkid up with their bloated expectations until the poor tyke burst under the strain. Jimmy didn't envy him. […] (He envied him.)[57]

These breakthroughs are never fully realised in the trilogy.[58] This may be because the society is destroyed before these technologies can become sufficiently advanced, or it may be because the improvements they offer are only achieved in a piecemeal fashion — mostly the text represents such breakthroughs as parodies. There is an implicit parallel here between the child that Jimmy's father and Ramona desire and are striving to create — it is notable that the text doesn't report their success or failure — and the Crakers. The modified offspring of the

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55 Margaret Atwood, *Oryx*, p. 339.
56 Marinette Grimbeek, 'Wholesale Apocalypse: Brand Names in Margaret Atwood's *Oryx and Crake*', *Names*, 64.2 (2016), 88–98 (p. 92) <https://doi.org/10.1080/00277738.2016.1159448>.
57 Margaret Atwood, *Oryx*, p. 293.
58 Though there is little textual evidence for this, it has been suggested that Oryx may in fact be "grown" by Crake using these technologies, based on the photograph he saved, in order to manipulate Jimmy; see Craig McFarlane, 'MaddAddam | Misanthropology', 2013 <http://misanthropology.ca/maddaddam/> [accessed 2 September 2014].

pre-Flood world are 'beautiful as the dawn', but maths is not their strong suit. Nonetheless, they are loaded with expectations, both by Crake and Snowman, but also by the other survivors.

Within the content of her non-fiction, Atwood can be read as arguing against transhumanist aspirations — I have also drawn some preliminary connections to the *MaddAddam* trilogy that suggest this critique continues into her broader fiction. Her concerns with such moves stem from concerns about wider social balance, and an inability for human beings to recognise their limitations. She suggests that people fail to grasp that their human limitations are what shape the possibilities of *eudaimonia* for us. We might read Atwood as suggesting that technological globalised capitalism created these problems; it is not reasonable to suggest that more technological globalised capitalism is the solution. Instead of desiring more, we should recognise when we have enough; she concludes her review

> Perhaps we should take a clue from Tennyson, and separate wisdom and knowledge, and admit that wisdom cannot be cloned or manufactured. Perhaps that admission is wisdom. Perhaps enough should be enough for us. Perhaps we should leave well enough alone.[59]

As it appears in *In Other Worlds*, the review is titled "Arguing Against Ice Cream", which recognises that arguing against the promise of immortality may be unpopular. When published in a shortened form, it was alternately titled "The Dark Science of Perfection".[60]

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[59] Margaret Atwood, 'Arguing', p. 140. Atwood refers to Alfred Lord Tennyson's "Locksley Hall", published in *Poems* (1842).

[60] Margaret Atwood, 'The Dark Science of Perfection', *New Straights Time*, 2003, p. 7.

Survival

> This book would not be for academics. It would have no footnotes, and would not employ the phrase *on the other hand*, or at least not much.[61]

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> The raucous though unlikely success of *Survival* caused me to morph overnight from a lady poet with peculiar hair to the Wicked Witch of the North, accused of evil communism or bourgeois capitalistic sycophancy, though others greeted me as the long-awaited forger of the uncreated conscience of CanLit. I did not think I was either — I believed I was just writing a useful handbook to a little-known subject, a sort of early *Idiot's Guide*; but screens onto which images are projected seldom get a say as to the nature of those images, and neither did I.[62]

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Atwood's concept of survival is essential to understanding her views on transhumanism; it is complex, playing an analytical critical role, but also an extensive creative function across her career. Her most famous book of literary criticism, *Survival: A Thematic Guide to Canadian Literature* (1972), draws on, or arguably formed, a nationalistic discourse that continues to have repercussions for Canadian identity today. But Atwood's conception of survival has also been shaped by her environmental activism and close engagement with science. Over the last two decades, it has been increasingly influenced by her understanding of evolution and the threat posed by climate change. A line that she frequently mentions in interviews — she mentions it in the epigraph to this chapter — is that if we kill the ocean, human life on Earth will cease to be possible. Thus, whereas some critics are keen to see her deployment of the theme of survival as a parochial (or alternatively misguided) nationalistic sentiment, it is clearly the case that, for Atwood, survival is a way that Canadian literary identity (and

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[61] Margaret Atwood, 'Introduction' in *Survival: A Thematic Guide to Canadian Literature*, Kindle (Toronto, ON: House of Anansi Press, 2012), loc.316.

[62] Margaret Atwood, 'Survival: A Demi-Memoir', in *Survival (2012)*, loc.140.

particularly her own practice as a writer) can speak to the world on a vitally important topic. Simply surviving is not enough; Atwood only regards surviving with some view of *eudaimonia* as laudable.

However, *Survival* was not created with this global context in mind. In fact, it was an attempt to rescue a small and failing publishing house, the House of Anansi Press, by creating a 'VD [Venereal Disease] of Canadian Literature' which would sell copies not just of this book, but would open the market for the Canadian literature that was Anansi's primary portfolio.[63] As Ellen McWilliams notes, the book was originally to be titled *Survival: A Canadian Culture Handbook*, and was to be accompanied by *Survival Two: A thematic anthology of Canadian Literature*, which Atwood reportedly made progress in assembling but never published.[64] *Survival* was slated to sell approximately three thousand copies to a very limited audience; instead, it has remained continuously in print up until the present day, with one estimate of sales being approximately a hundred and fifty thousand copies. I want to open by looking at how Atwood came to write *Survival* because the genesis of the book indicates some specifically Atwoodian concerns regarding survival which are concealed in its claim to be a survey of a national literature. After considering its publishing history, I will turn to the arguments presented in *Survival*, and reflect on how we can read these in relation to the *MaddAddam* trilogy.

In a blog post on the Historical Perspectives on Canadian Publishing section of the Digital Collections of the McMaster library website, Pamela Ingleton looks at the genesis of *Survival* using material from the Thomas Fisher Rare Book Library, University of Toronto, to which Atwood has left her archive. Ingleton traces the relationships between Atwood and her editor, Dennis Lee, and the blog includes photographs of typed and handwritten

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[63] Margaret Atwood, *Survival (2012)*, loc.314.
[64] Ellen McWilliams, *Margaret Atwood and the Female Bildungsroman*, Kindle (Abingdon: Routledge, 2016), pp. 44–45.

communications and drafts to illustrate this relationship. The picture that Ingleton paints is one in which Atwood is creating a — characteristically — dark vision of Canadian literature, with Lee consistently chipping in to try to suggest a more positive rendering of survival:

> Your job is not to show that there are victims victims everywhere (though there are goddammit); but, at times at least, to show that where positive achievement is possible in Canadian writing, it is most likely to be that of survival …That seems to fade from the picture a bit…which makes things somewhat bleaker than they need to be.[65]

The thesis of *Survival*, put in very general terms, is that national literatures have an iconic idea around which they revolve — for the literature of the United States it is the "Frontier", and for British literature it is the "Island" — for Canadian literature (CanLit) it is the idea of survival. Reflecting on *Survival*, George Woodcock suggests that 'one suspects a temperamental inclination has led her a long part of the way towards her conclusions'; in a different essay, Woodcock describes it as a 'frankly polemical book with much of the provocativeness of a good political pamphlet'.[66] Stein suggests that the 'focus on themes of victimhood and failure was disconcerting' to critics; but Davis argues that — ironically, given its concerns — '*Survival* helped establish the viability, vitality and vibrance of the literature.'[67] Clute views *Survival* as having saved 1960s literary Canada from itself, summing up its argumentation as 'an analysis of the Canadian episteme recounted in an ice-clear impassioned voice, gave that voice to us: shook us free of the pretensions of

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[65] Note from Dennis Lee to 'Peg' (Atwood), quoted in Pamela Ingleton, 'Margaret Atwood, Dennis Lee and the Survival of Canadian Literature', *Historical Perspectives on Canadian Publishing*, 2009, para. 1 <http://hpcanpub.mcmaster.ca/case-study/margaret-atwood-dennis-lee-and-survival-canadian-literature> [accessed 2 July 2016].

[66] George Woodcock, 'Horizon of Survival', *Canadian Literature*, 55 (1973), 3–6 (p. 5); 'Bashful but Bold: Notes on Margaret Atwood as Critic', in *The Art of Margaret Atwood: Essays in Criticism*, ed. by Arnold E. Davidson and Cathy N. Davidson (Toronto, ON: House of Anansi Press, 1981), pp. 223–41 (p. 232).

[67] Karen F. Stein, *Margaret Atwood Revisited* (New York, NY: Twayne, 1999), p. 146; Roger Davis, '"a White Illusion of a Man": Snowman, Survival and Speculation in Margaret Atwood's *Oryx and Crake*', in *Hosting the Monster*, ed. by Holly Lynn Baumgartner and Roger Davis (Amsterdam, NY: Rodopi, 2008), pp. 237–58 (p. 239).

unpretentiousness that coated our tongues like flannel.'[68] That its role in CanLit studies remains hotly debated suggests something of its importance.

Survival did in fact make a significant contribution to the survival of Anansi, and Atwood continues to be published by them to this day. The circumstances of that survival are dramatic, almost indeed novelistic. Ingleton recounts that

> Following a fire on the morning of 3 March 1971 which resulted in the destruction of a large percentage of inventory due to water damage, Anansi found itself in a difficult financial situation; the loss merely accentuated the pressures the struggling publisher had experienced since its inception.[69]

The sudden, surprising, and enduring popularity of *Survival* provided far more than the capital to underwrite a few poetry collections or a single first novel, which was the anticipated outcome of the project — rather, it became a platform on which Anansi could turn its fortunes around. Atwood was initially embarrassed by the number of Anansi writers that the book references, but in a note to Lee she suggests that the scarcity of other titles may be sufficient justification for the limited range of the selection. It was important to Atwood that the *Survival* should look at the national literature, but particularly at the national literature that Canadian citizens could actually acquire or read for themselves, rather than a series of milestone works that were out of print and impossible to find. Thus, *Survival* depends upon the general availability of the primary texts for its persuasiveness and popularity. Its accessibility was also a key concern, which is why the book does not focus on historical development, starting 'with the Confederation Poets or about early Canadian fur-trader journals.'[70] McWilliams, in a nuanced reading of the place of *Survival* in Atwood studies and

[68] John Clute, 'Margaret Atwood and the S and F Words', *Los Angeles Review of Books*, 27 November 2011, para. 7 <https://lareviewofbooks.org/article/margaret-atwood-and-the-s-and-f-words/> [accessed 2 April 2018].

[69] Ingleton, 'Survival of Canadian Literature', para. 3.

[70] Margaret Atwood, *Survival: A Thematic Guide to Canadian Literature* (Toronto, ON: House of Anansi Press, 1972), p. 12.

CanLit more generally, argues that 'many stubbornly overlook the context in which Atwood was writing and the audience for whom *Survival* was designed.'[71] Moreover, as Frank Davey acknowledges, on 'publication, critical opinion was — with only a few reservations — overwhelmingly positive.'[72]

All of this is relevant because it provides the necessary background to the storm of comment and criticism that built up after its publication. All agreed that '*Survival* was an "In" book, a book to read, a book to have an opinion about.'[73] *Survival* became a lightning rod which drew down the cultural forces which were already in the offing. The book posited a monolithic definition which could be adapted to numerous critical concerns; in doing so it initiated discussions with which the book itself shares very little. *Survival* became required reading in Canadian schools and universities; it remains one of the texts by which non-Canadians generally encounter CanLit; and inside Canada it generated huge debate over the nature of the national literature and identity. It is clear that *Survival*, whose main argumentation is about 220 pages, could not hope to conclusively demonstrate the thesis that Canadian literary identity was generated in response to a single totemic idea; but neither was that Atwood's intention.

Joseph Pivato is one of the book's most sustained critics. In his view, *Survival* was 'a handy sketch for organizing some themes in Canadian writing for a short time', but that it provides a 'narrow, static, and negative view of Canadian writing' written at 'a time when it [was] changing very rapidly.'[74] The obvious flaws Pivato records include the suggestions that Atwood's reading of Quebec literature is 'negative and pessimistic'; there is 'no discussion of

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[71] McWilliams, p. 44.
[72] Frank Davey, *Margaret Atwood: A Feminist Poetics* (Vancouver, BC: Talonbooks, 1984), p. 153.
[73] Erin Aspenlieder, 'Tips for Surviving "Atwood": Confronting the Complexities of the Wilderness Celebrity', *Margaret Atwood Studies*, 3.1 (2009), 3–11 (p. 4).
[74] Joseph Pivato, 'Atwood's Survival : A Critique', *Canadian Writers, Athabasca University*, 2016, para. 4 <http://canadian-writers.athabascau.ca/english/writers/matwood/survival.php> [accessed 30 October 2016].

multiculturalism or of the search for meaning in dual identity'; and in the chapter entitled

"Ancestral Totems: Explorers, Settlers", 'there are no Native ancestors or totems', which

'verges on the appropriation of Native culture for no other reason than to pretend to

acknowledge the existence of a Native presence in Canada'. Davey argues that it ignores

'regional factors', and consequently implies 'a possible prepossession with closed space in

Southern Ontario writing and with the closing of space in Prairie writing.'[75] In summation,

and in the words of Robin Matthews, it 'remains — having survived several printings with no

significant changes — a fundamentally misguided view of Canadian literature'.[76] Matthews,

who, like Atwood, had been a student of Northrop Frye's, further claimed that Atwood was

too influenced by Frye's mythic criticism.[77] Thus, these critics 'decry the oversimplification

of Atwood's survival thesis and describe the four basic victim positions as an odd blend of

Frygian archetypal criticism and the Games People Play pop psychology of the 1960s'.[78]

These criticisms would damn any academic study; but as I have already indicated,

Survival was not intended as a rigorous academic study, and the materials and the time it took

to produce not withstanding, it has made a significant contribution to the discourses

surrounding CanLit, including making it more visible to non-Canadians. When Atwood

proposed "survival" as the central theme of the CanLit tradition, she did so cautiously. The

most important characteristic of this caution is that it embraces complexity; Atwood is

absolutely not proposing that CanLit responds only to survival. Rather, like the Frontier and

the Island, it is intended to be 'a multi-faceted and adaptable idea', which plays out not only

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[75] Frank Davey, 'Surviving the Paraphrase', *Canadian Literature*, 70 (1976), 5–13 (p. 11).
[76] Robin Matthews in *Canadian Literature: Surrender or Revolution,* quoted in Pivato, para. 5.
[77] Robin Matthews, *Canadian Literature: Surrender or Revolution*, ed. by Gail Dexter (Toronto, ON: Steel Rail, 1978).
[78] Thomas B. Friedman, 'Using Atwood's Survival in an Interdisciplinary Canadian Studies Course', in *Approaches to Teaching Atwood's The Handmaid's Tale and Other Works*, ed. by Sharon Rose Wilson, Thomas B. Friedman, and Shannon Hengen (New York, NY: The Modern Langauge Association of America, 1996), p. 68.

as itself, but also recurs in other apparently unrelated images. The example that Atwood chooses is the idea that an "Englishman's home is his castle", which she links to the idea of isolation inherent to the concept of the Island. She suggests there are several ways that survival has been interpreted in CanLit; bare survival, grim survival, French Canadian resistance to English Canadian domination, English Canadian resistance of American cultural domination, and the idea of something as a relic of a former glory. 'But the main idea is the first one: hanging on, staying alive. Our central idea is one which generates […] an almost intolerable anxiety.'[79] *Survival* sketches out tropes and figures which are common to a number of Canadian works, productively generating ways of reading certain characters, plots, or settings in ways that continue to be fruitful. Another element of the book which is often ignored in discussion about its reception is Atwood's discussion of Canada as a postcolony.[80] This position has been widely taken up and explored, and *Survival* is an important vehicle of this idea. We can see that the pervasive anxiety concerning survival that Atwood posits as being a Canadian characteristic is made universal in her dystopian works. This anxiety is in some ways also a prelude to the normalising of trauma in the twenty-four hour news cycle and climate of political fear that Hardt and Negri describe as 'a proliferation of minor and indefinite crises', which they call the omnicrisis.[81] This raises the question of whether Atwood's works — which are themselves anxiety-provoking — are implicated in the satire that Atwood creates of a news media that focuses only on the anxiety provoked by violence and excitement; according to Atwood's understanding of survival, CanLit might offer us a means of understanding, and perhaps even of resistance to, this anxiety.

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[79] Margaret Atwood, *Survival*, p. 33.
[80] McWilliams, p.50, suggests that Canadian Literature is in part defined by the confluence between feminist and postcolonial discourses, in both of which Atwood has played a highly significant role,
[81] Michael Hardt and Antonio Negri, *Empire* (London: Harvard University Press, 2000), p. 189.

In the context of my argument about transhumanism, Atwood's specific thesis concerning CanLit is not relevant, though it does seem to me to have been useful to CanLit studies as, at the very least, a way to ignite debate and as a text to write against. But as an indicator of Atwood's personal vision of what is significant in her creative work, it is certainly an important marker — and despite his other objections noted above, Friedman concedes that '*Survival* is a valuable guide to Atwood's creative writing.' Marge Piercy, in an illuminating study that indicates that she closely engaged with all of Atwood's early fiction and poetry, commended *Survival* as 'an extremely canny and witty book', but suggested that its primary use should be for 'what it tells us about Atwood's ideas.'[82] McWilliams goes further:

> If, in retrospect, many of these points about *Survival* seem necessary, Atwood's subsequent critical and fictional oeuvre best answers the accusations of her more damning critics. Through her fiction, she emerges as one of the most interesting exponents of a complex and self-interrogating paradigm of survivalism in Canadian literature, contributing to the tradition in a way that explores, develops, and also provides relief from the apparent negativity of the idea as theorized in her early work.[83]

Numerous studies have investigated Atwood's own writings through some framework of survival, and in doing so have demonstrated a continuity in Atwood's thought, where survival is always at stake.[84] Whether this takes the form of Grace Marks' withholding of her

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[82] Marge Piercy, 'Margaret Atwood: Beyond Victimhood', *The American Poetry Review*, 2.6 (1973), 41–44 (p. 41). The admiration between Atwood and Piercy seems to have been mutual, as Atwood wrote a very positive review of *Woman at the Edge of Time*, collected in *In Other Worlds* as 'Woman on the Edge of Time', in *In Other Worlds: SF and the Human Imagination* (London: Virago, 2011), pp. 101–5.

[83] McWilliams, p. 44.

[84] For instance, see Sharon Rose Wilson, 'Blindness and Survival in Margaret Atwood's Major Novels', in *The Cambridge Companion to Margaret Atwood*, ed. by Coral Ann Howells (Cambridge: Cambridge University Press, 2006), pp. 176–90; Elisabeth Hansot, 'Selves, Survival, and Resistance in *The Handmaid's Tale*', *Utopian Studies*, 5.2 (1994), 56–69; Earl G. Ingersoll, 'Survival in Margaret Atwood's Novel *Oryx and Crake*', *Extrapolation*, 45.2 (2004), 162–75; Anna Bedford, 'Survival in the Post-Apocalypse: Ecofeminism in *MaddAddam*', in *Margaret Atwood's Apocalypses*, ed. by Karma Waltonen (Newcastle upon Tyne: Cambridge Scholars Publishing, 2015); etc.

autobiography, Elaine Risley's reflections on her childhood, or the triple survival narrative of Tony, Charis, and Roz in *The Robber Bride*, Atwood's protagonists are forced to test their values and identities against their own survival — whether that is interpreted literally or psychologically and emotionally. Much of the tension that Atwood's novels generate rises from the struggle to survive. Atwood's fiction does not represent survival at any cost as acceptable. To survive in such a state is to have lost humanity — the wendigo, which I will go on to look at in the Chapter Three, is a key figuration of this — and the *MaddAddam* trilogy foregrounds and condemns the Painballers, honed by the society they are surrounded by into the ultimate "grim survivors", for whom the only criterion is individual survival. Atwood's concept of survival, like her conception of ustopia, implies a hopeful view of what *eudaimonia* should be like, even as it shows us how that good life may be destroyed or damaged. If, as Tim Mulgan has written, the 'device of the broken world serves […] to highlight the contingency of our moral and political ideals, asking us to see our society and its ideals from the outside', then Atwood conceives of survival in these novels as a necessary, but not sufficient, ground for human flourishing.[85] Atwood's portrayal of the survival of women isolated in prison-like environments — Grace in *Alias Grace* and Offred in *The Handmaid's Tale* for example — focuses on the retention of their selfhood and subjectivity as the real vehicle for survival. Thus, according to Patricia Waugh,

> During the 1960s, as Vonnegut waves a fond goodbye to character in fiction,
> women writers are beginning, *for the first time in history*, to construct identity
> out of the recognition that women need to discover, and must fight for, a sense
> of unified selfhood, a rational, coherent, effective identity.[86]

'*Nolite te bastardes carborundorum*', the motto carved into the wall of Offred's cupboard, presumably by her predecessor, is not interpreted by Offred as survival at any cost, but a

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[85] Tim Mulgan, *Ethics for a Broken World: Imagining Philosophy After Catastrophe* (Durham: Acumen, 2011), p. ix.

[86] Patricia Waugh, *Feminine Fictions* quoted in McWilliams, p. 33.

meaningful endurance of who she is against her oppressors' insistence that she is nothing but a womb.[87] To play a moral role in Atwood's schema, survival must be a picture of more than just grim survival; it offers a picture of a life worth living beyond that. Atwood must show how a life worth living can survive, and her dystopian trilogy is a contribution towards that end. It is impossible to achieve *eudaimonia* alone in grim survival; it must take place in a network of human relationships.

In the majority of her works, Atwood has been primarily concerned with the survival of protagonists — and this is the kind of survival that Atwood chiefly describes in *Survival*, typified in her argument by the figures of reluctant immigrants or explorers wrecked or lost in snow storms. In *Payback,* and in the documentary (directed by Jennifer Baichwal) which is in part based upon it, Atwood puts forward the view that our survival in a larger sense is under threat, that we have created an environmental debt that we cannot hope to pay back.[88] A major development in Atwood's work is the increasing emphasis on the recognition of all life as part of a web of interconnections, with strong implications for the concept of survival — namely, that we have to support the whole interdependent biosphere for any of us to survive as individuals. Shannon Hengen observes that '[a]s whole creatures we both affect and are affected by the larger environment in which we evolve', and Atwood's 'work asks us to bear that interconnectedness firmly in mind.'[89] By asking whether and how the neohumans and refugees from the Waterless Flood survive, we can try to 'see as clearly as possible those patterns of theme, image and attitude' which hold this trilogy together.[90]

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[87] Margaret Atwood, *The Handmaid's Tale* (London: Vintage, 1996), p. 101.
[88] See Atwood, *Payback* - especially the final chapter, "Payback"; and the documentary adaptation Jennifer Baichwal, *Payback*, 2012 <http://www.zeitgeistfilms.com/payback/>.
[89] Shannon Hengen, 'Margaret Atwood and Environmentalism', in *The Cambridge Companion to Margaret Atwood*, ed. by Coral Ann Howells (Cambridge: Cambridge University Press, 2006), pp. 72–85 (p. 84).
[90] Margaret Atwood, *Survival*, p. 12.

Neohumans

> We left behind one by one
>
> the cities rotting with cholera,
>
> one by one our civilized
>
> distinctions
>
> and entered a large darkness.
>
> It was our own
>
> ignorance we entered.[91]

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Atwood's *MaddAddam* trilogy is centrally concerned with two species that I have termed neohumans. One of these was created to address a biomedical therapeutic imperative to increase the availability and success chances of organ transplants, and the other out of a desire to reshape the human species into an animal that reaches a stable relationship with its environment by design. The genesis of these two creatures is thus very different, as is the way in which they are treated by the text. The Crakers are humanoid in shape, and form a more identifiable continuum with *H. sapiens*. If we read Atwood's depiction of the Crakers as an ideal form of life, we will naturally see the trilogy as a whole as eutopian. If instead we see the Crakers as a Swiftian satire of the human desire to escape from our current embodiment — a caricature of humanity as a 'species of screeching, promiscuously defecating yahoos' — then our reading will naturally close the eutopian possibilities opened by the first reading.[92] And if we see the neohumans as a diminution of human life, then we will see them as a stark warning to encourage us to take action now, before the kinds of actions taken in the trilogy

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91 'Further Arrivals' in Margaret Atwood and Charles Pachter, *The Journals of Susanna Moodie* (New York, NY: Houghton Mifflin, 1997), p. [16].

92 I borrow this Swiftian reference from an unrelated context in Garret Keizer, *The Unwanted Sound of Everything We Want: A Book About Noise* (PublicAffairs, 2010), pp. 95–96.

become necessary. Atwood plays extensively with all three of these readings and several more besides — this is part of the ustopian logic of Atwood's work.

Pigoons

In the post-Flood world, the Pigoons have been released — or have escaped — from their captivity, and are thriving. They are described as 'plump pinky-grey' porcine creatures, 'too large and bulbous to be normal', with 'runny noses and tiny, white-lashed pink eyes'.[93] Once released, they develop tusks and exhibit complex herd behaviour, forming large groups with hierarchies and social structures. These include systematic hunting practices, and they are one of the primary antagonists in the first novel, hunting Snowman with an eerie efficiency.[94] They are represented as allegories of desire, a historic tendency which can be seen in Ambrose Bierce's definition of pigs in *The Devil's Dictionary* (1906): 'An animal (*Porcus omnivorous*) closely allied to the human race by the splendour and vivacity of its appetite, which, however, is inferior in scope, for it sticks at pig.'[95] In *The Year of the Flood,* Toby observes Pigoons conducting funeral-like rites for a boar which she shot to defend her garden. After this, the Pigoons precipitate the crisis of the novel by destroying that garden, forcing Toby to abandon her Ararat.[96] Finally, in *MaddAddam*, they are revealed to be much more intelligent than previously thought, possessing a language and the ability not only to reason, but to negotiate. They mourn their slaughtered young, and draw up a treaty with the

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[93] Margaret Atwood, *The Year of the Flood* (London: Virago, 2010), p. 21; Margaret Atwood, *Oryx*, p. 30.

[94] By way of precedent, Lyall Watson reports a 'black sow in the New Forest of Hampshire who showed so much promise that a game-keeper trained her to become a "hunting pig" who pointed a partridge in the coverts as assiduously as any dog', in *The Whole Hog: Exploring the Extraordinary Potential of Pigs* (London: Profile, 2004), p. 173.

[95] Ambrose Bierce, *The Devil's Dictionary* (London: Bloomsbury, 2003), p. 111. Without wishing to be glib, it seems to me that this remark represents a neat summation of the trilogy's critique of the twenty-first century lack of temperance.

[96] An Ararat is a cache of survival supplies, which all God's Gardeners are compelled to make against the prophesied destruction of the world. Comparable practices are performed by the survivalist or prepper movement, including the maintenance of a "bug out bag" or a "get out of dodge" kit containing the essentials for survival in a range of different disaster scenarios.

remaining humans, the terms of which are that humans will not kill them or their young for food, and they in return will abstain from destroying human crops or eating human beings. The Crakers call them "Pig Ones" rather than Pigoons, and this formalized relationship establishes the new norm for the nascent Cobb House community.

When the Pigoons are created by scientists working at OrganInc Farms, they are kept in conditions which resemble contemporary factory farming practices; they are warehoused in large sheds, in small stalls, apparently for their entire lives. Jimmy remembers thinking that he was 'glad he didn't have to live in a pen, where he'd have to lie around in poop and pee', another sign that the pigs are enclosed because, allowed freedom, pigs will carefully isolate a 'dunging site', one of three essential fixed points in pig life according to Watson.[97] They are kept this way because the scientists working on the project fear two things: they are afraid that another corporation will steal their work, and thus harm the profit margin; and they are afraid that bioterrorists will infect the Pigoons with a virulent disease, which will harm the profit margin in a different way. Again, this reflects the practices of contemporary agribusiness, in which profits are driven by maintaining absolute control over their animals, including the routine administration of antibiotics and intensive breeding, which has been characterized as the 'chickenification' of pig-rearing industry.[98] 'Today's pigs are bred lean, kept in heated and ventilated confinement barns, for "keeping pigs at just the right temperature allows them to devote every ounce of energy to one purpose: growth"'.[99] Atwood's pun on "organic", as well as the inclusion of "farms" in the company's name, ironically highlights these industrial practices. Sometimes the company is known as Organ-Oink Farms for a similar reason.

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[97] Watson, p. 15.
[98] Brett Mizelle, *Pig* (London: Reaktion, 2011), p. 78.
[99] Nathanael Johnson, 'The Swine of the Times: the making of the modern pig', quoted in Mizelle, p. 78.

"Pigoon" itself is only a nickname, though apparently a widespread one; they are officially designated *Sus multiorganifer*, presumably indicating their basis in the domestic pig, *Sus domesticus*. One possible point of origin for the nickname is suggested by Jimmy when, as a child he chants 'Pigoon, balloon, pigoon, balloon' to pacify some Pigoons he is observing; their increasingly inflated shape represents the "cargo" their bodies contain.[100] This indicates a very different relationship to the one he will develop with them later in the trilogy, where he refers to them in increasingly militarised metaphors — for instance when he asks if any of the MaddAddamites 'nuked the little porker', or when he describes his Pigoon allies as 'The Great Wall of Pork', 'The Bacon Brigade. The Hoplites of Ham.'[101] This change in attitudes reflects the long history of the dilemma posed 'for humans torn between seeing "pigs" and "pork"', a dilemma handily reproduced by the twin series of books published by Reaktion, the Animal series and the Edible series, which include entries for both *Pig* and *Pork*. So finally, of course, another possibility for the unhappy Pigoon is to be butchered for meat — a practice officially disavowed by OrganInc Farms. However, 'back bacon and ham sandwiches and pork pies turned up on the staff café menu' regularly enough for it to acquire the nickname "Grunts".[102] I will address Pigoons in the context of food production - and the allure of eating them as near-cannibalistic — in Chapter Three, which deals specifically with genetically modified food.

The trilogy covers the history of development of the Pigoon in some detail, because Jimmy's father (unnamed in the text), one of the best genographers in the world, is one of the people working on the project at OrganInc Farms, having helped complete the 'Methuselah Mouse as part of Operation Immortality'.[103] In what will become a significant point later in

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[100] Margaret Atwood, *Oryx*, p. 30.
[101] Margaret Atwood, *MaddAddam*, pp. 327, 424.
[102] Margaret Atwood, *Oryx*, p. 27.
[103] Margaret Atwood, *Oryx*, p. 25. Outside the scope of the trilogy, the Methuselah Mouse Prize (known as the Mprize) is awarded by the Methuselah Foundation, founded by Aubrey de Grey and David

the narrative, Jimmy's father was instrumental in mapping the proteonome, work which

Crake employs to design the Crakers. Initially, the Pigoons grow organs for transplant, and

must be "destroyed" when the organs are harvested.[104] This is presumably a euphemism,

which conceals the fact that the Pigoons only have one set of organs, and removing them kills

them.[105] In the early stages of *Oryx and Crake* this drawback is overcome, and the Pigoon is

given the ability to grow multiple organs which can be transplanted without killing the host,

and then, post-donation, the Pigoon regrows the transplanted organ, like a starfish growing

back a limb. A significant moment in the novel arises when Jimmy's father brings home a

bottle of champagne to celebrate the success of the attempt to implant human neocortex tissue

into Pigoon brains, ostensibly for future transplant. It is not made clear in the novel whether a

transplant of this kind ever takes place, but one of the effects of this transplant is to grant the

Pigoons increased intelligence, which Snowman rues at numerous points after the Flood.

Readers and critics have been quick to identify the Pigoons with that other influential

porcine depiction in dystopian literature — the overlords of George Orwell's *Animal Farm*

(1945). Like Napoleon, Squealer, and the others, Atwood's Pigoons can be 'variously

interpreted and mobilized to multiple political positions.'[106] Atwood has admired Orwell for

many years, and regards his works as inspirational for her political views and her own

dystopias, having cried over it when she first read it, aged nine.[107] There are a number of

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Gobel – the goal of the Foundation is to make "90 the new 50 by 2030". See *Methuselah Foundation*, <https://www.mfoundation.org/> [accessed 11th July 2018].

[104] Margaret Atwood, *Oryx*, p. 26.

[105] In Kazuo Ishiguro's *Never Let me Go* (2005) – a text frequently cited in connection with *Oryx and Crake* both for the date of its publication and the similarity of its concerns – the word "donation" is used as a similar euphemism to conceal the death of the clones whose organs are harvested.

[106] Mizelle, p. 165.

[107] Margaret Atwood, 'Orwell and Me', *The Guardian*, 16 June 2003, section Books <http://www.theguardian.com/books/2003/jun/16/georgeorwell.artsfeatures> [accessed 10 February 2016]. An except from this published in *The Guardian* almost ten years later described Orwell as 'my hero' in the title. For discussion of *The Handmaid's Tale* as a parallel to *Nineteen Eighty-Four*, see Earl Ingersoll, 'Margaret Atwood's *The Handmaid's Tale*: Echoes of Orwell', *Journal of the Fantastic in the Arts*, 5.4 (20) (1993), 64–72.

textual similarities — for instance, the way in which, over the course of the narratives, the Pigoons come to resemble the human beings from whom they are initially distinguished, culminating in fusing of their differences in complex political agreement. The intelligence of real life pigs has been studied extensively, and is acknowledged in various cultural forms — from Winston Churchill's reported recognition of pigs as equals, to Dick King-Smith's children's novel *The Sheep-Pig* (1983), adapted into an internationally successful film as *Babe* (1995), in which a pig is trained to herd sheep and wins a national competition.[108] Though the area is under-researched, intelligence in pigs has also been the subject of some scientific studies.[109] Some of the features of intelligence which it is suggested Pigoons acquire by virtue of their implanted human neocortex tissue, pigs actually possess in the real world, as they have been shown to be able to manipulate cursors on computer screens, and to distinguish between different written words, tasks understood to indicate self-agency and cognitive complexity.[110] The results of these tasks rank pigs alongside chimps and dolphins in terms of intelligence. One study describes how a pig's 'mood and personality interact, impacting judgement', in the first evidence that pigs experience cognitive bias in a similar way to human beings.[111]

However, Atwood's descriptions of the Pigoons are also influenced by her own experience as a farmer. In the early seventies, Atwood, her partner Graeme Gibson — also a writer and conservationist — and his two children lived on a working farm in a small agricultural community.

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[108] For extensive discussion of the history of pigs and their representation in literature, see Mizelle, especially chapter 7, "Pigs of the Imagination".

[109] Lori Marino and Christina M Colvin, 'Thinking Pigs: A Comparative Review of Cognition, Emotion, and Personality in Sus Domesticus', *International Journal of Comparative Psychology*, 28 (2015), 23 summarises the key findings in the literature thus far, as well as indicating future directions for research. These strongly imply that pigs demonstrate significant levels of intelligence.

[110] Marino and Colvin.

[111] Lucy Asher and others, 'Mood and Personality Interact to Determine Cognitive Biases in Pigs', *Biology Letters*, 12.11 (2016) <https://doi.org/10.1098/rsbl.2016.0402>.

When I say "working farm," I mean we worked hard. I don't mean we made a profit. That nine-year-long enterprise taught both of us a lot of respect for farming and farmers. Anyone who's ever come near such a hands-on experience knows that food doesn't appear out of the air done up in plastic wrap.[112]

Shortly after Atwood's daughter was born in 1976, they decided to move back to the city to spare her daughter the four hour round trip to school — 'It was a shame: but on the other hand farming was a hell of a lot of work', Atwood commented.[113] Farming remains important to Atwood, and in 2010 she helped to lead a protest movement against the closure of Canada's prison farms, a move she described as

dumb as a stump and stupid as a box of hair and also a sack of hammers, and those who thought it up have their lights on but nobody home, and aren't playing with a full deck. Follow them, and you'll soon be up an aptly-named excrement-filled creek without a paddle. I learnt those down-to-earth expressions while we were running our farm, farms being places where you do tend to get down to the earth, literally.[114]

In the speech she drew direct connections between farming practices, correctional practices, and the 'disaster-prone climate we have entered'. Unfortunately, despite the protests, the Harper-led Conservative government closed the farms in 2010. However, in 2016 the Trudeau-led Liberal government re-opened the question to the Canadian public, with a strong showing in favour of re-opening the prison farms.[115]

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[112] Margaret Atwood, 'Save Our Prison Farms Rally, Kingston, Ontario, June 6', *Margaret Atwood: Year of the Flood*, 2010, para. 5 <https://marg09.wordpress.com/2010/06/07/save-our-prison-farms-rally-kingston-ontario-june-6/> [accessed 21 May 2017].

[113] Robert Potts, 'Light in the Wilderness', *The Guardian*, April 2003 <http://www.guardian.co.uk/books/2003/apr/26/fiction.margaretatwood> [accessed 19 October 2010].

[114] Margaret Atwood, 'Save Our Prison Farms', para. 15.

[115] Diana Mehta, 'Trudeau Government Considers Reopening Prison Farms Shut down in 2010 | Toronto Star', *Thestar.Com*, 2016 <https://www.thestar.com/news/canada/2016/07/10/trudeau-government-considers-reopening-prison-farms-shut-down-in-2010.html> [accessed 21 May 2017]; Madeline Bielski, 'A Herd and a Hope: The Fight to Reopen Canada's Prison Farms', *Pulitzer Center*, 2017 <http://pulitzercenter.org/reporting/canada-prison-farms> [accessed 21 May 2017].

Some of these farming experiences are recorded, in an inflected way, in her collection of poetry, *You Are Happy* (1974); "Pig Song" is of particular relevance here.[116] These direct experiences underpin Atwood's representation of Pigoons in their two modes as either rapacious metonym for endless appetite or as sensitive complex animals. Sharon Rose Wilson reads this poem, in the context of the other "Songs of the Transformed" which form the second part of the collection, as telling of 'the crimes done by hands', and also by 'voices', which means they are to be read as 'warnings and protests.'[117] The Transformed 'suffer and symbolize human follies as they encounter or use gouging, mutilation, crushing, and gloved touch.'[118] Of these, Wilson sees the pig as voicing a challenge against 'the incarnation of greed and parasitic taking'; in the poem the humans feed the pig garbage, which means that they also ingest the rubbish as a natural consequence of using the pig as 'a skin you stuff so you may feed | in your turn'. Atwood's rejection of greed, and the implicit message of temperance, thus play an important role in the representation of the Pigoons. I will return to "Pig Song" in Chapter Three, because the terms used to describe the pig — 'wart of flesh' and 'tuber of blood' — are transferred in *Oryx and Crake* to the ChickieNob, which suggests a parity between Atwood's responses to domesticated animals which have been 'changed', overbred to be only a food source for human beings and nothing more.

Pigoons do not correspond directly to transhumanist aspirations; though they are the result of biotechnological research that transhumanists would and do advocate for, they are "just" animals designed to be used for a purpose, the purpose of extending human life through organ donation. Though transhumanists seek the transition of humanity into

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[116] Margaret Atwood, 'Pig Song' in *You Are Happy* (Toronto, ON: Oxford University Press, 1974), p. 30.
[117] Sharon Rose Wilson, *Margaret Atwood's Fairy-Tale Sexual Politics* (Toronto, ON: ECW Press, 1993), p. 157.
[118] Sharon Rose Wilson, *Margaret Atwood's Fairy-Tale Sexual Politics*, p. 156.

neohumans, this does not typically extend to other species.[119] Pigoons therefore represent an unanticipated off-shoot of transhumanist logic, and they are celebrated by some critical posthumanist readers as instances of Atwood's de-centring of the human by showing other forms of non-human agency. Lynda Birke raises questions about an analogous issue in transgenic art which trouble this celebration by critical posthumanists:

> Moreover, for all that artists may speak of "making humans part of the continuum" and breaking down species barriers, it is not humans whose genetic integrity is thus compromised. We have not yet seen a green fluorescent protein (GFP) (fluorescent) human baby. That would, no doubt, produce a much stronger "yuk" reaction, and a sense of public revulsion, than GFP bunnies — which in itself underlines the strength of anthropocentrism. For if genetic boundary crossing is really so radical a challenge to our place at the centre of our universe, why should we baulk at making human-baby art installations?[120]

Pigoons thus mark an important limit in the trilogy; Atwood represents them as being human-like because of the human brain tissue they have been engineered to grow. They are not shown as acquiring additional independent intelligence, and they don't express "pig-like" intelligence in new ways. As such, it is wrong to see the text as escaping anthropocentrism; in fact, the trilogy suggests that anthropocentrism is necessary to properly conceiving of human beings and what is important about them. Instead, the trilogy suggests that we have to expand the circle of our moral concern, to draw on Peter Singer's metaphor.[121] Atwood's position is

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[119] There is a separate concept within sf known as "uplift" by which species are modified to possess human-like intelligence; typically the subjects chosen for uplift are animals already considered to possess a significant degree of intelligence. In David Brin's *Uplift* series (1980-1998), these include neo-chimpanzees, neo-dolphins, neo-gorillas and neo-dogs. An example less dependent on contemporary understandings of animal intelligence can be found in Wells' *Island of Doctor Moreau* (1896) in which Moreau vivisects beasts into near-human form.

[120] Lynda Birke quoted in Sławomir Kozioł, 'Crake's Aesthetic: Genetically Modified Humans as a Form of Art in Margaret Atwood's *Oryx and Crake*', *Critique: Studies in Contemporary Fiction*, 59.4 (2018), 492–508 (p. 499) <https://doi.org/10.1080/00111619.2018.1432556>.

[121] Peter Singer, *The Expanding Circle: Ethics, Evolution, and Moral Progress* (Princeton, NJ: Princeton University Press, 2011).

that claims for rights are won, not doled out by an authority in the sky; they need to be fought for, and they need to be held onto: 'The price for freedom is eternal vigilance.'[122] Thus, at the end of the trilogy, what endows the Pigoons with the freedom from interference from human beings is not a recognition of their moral agency, but a proclamation of their socio-legal, as these freedoms issue from the treaty agreed by the Cobb House community. They are accorded new rights in keeping with their new status. The community do not become vegetarians (or not straight away), and they don't accord all animals the same status, only those animals, like humans, that can take part in linguistic dialogue.

Crakers

As the "more human" neohumans, the Crakers play the central role in the depiction of transhumanist aspirations in the trilogy. They involve fantasies of life extension, physical enhancements, and moral enhancements; these are three of the most significant transhumanist aims, and all appear in Max More's *Letter*. However, even as the representation of the Crakers embodies these aspirations, it forces us to question whether this future is desirable for us, or for our offspring. Critical discussion has focused on whether or not the Crakers can be considered eutopian possibilities, or merely satirical representations. This ignores the fact that they are represented differently across the trilogy, and also disregards Atwood's inherently pluralist ustopian logic. In the critical literature, there are common positions regarding the Crakers: that they are purely for satirical and comic effect; that their joining the Cobb House community and mating with the humans indicates a celebration of a posthuman mode of being; that they are representations of an ecological ideal; or that they are embodiments of a Baudrillardian unreality. All these readings are inflected by the critic's evaluation of Crake and his motives. For some, Crake is successful in breaking away from

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[122] Coral Ann Howells, *Margaret Atwood in Conversation with Professor Coral Ann Howells* (London, 2016) <https://vimeo.com/199141947> [accessed 24 June 2018] (20:30-21:15).

the old model of humanity; for others, the Crakers show evidence of recidivism that undermines their radical difference.

Crakers are characterised as being very similar to *Homo sapiens*, with the addition or substitution of genetic material from a wide array of species to change their behaviour.[123] Initially they are not called "Crakers", but "the Paradice people"; it is only after the Flood that they take on their creator's name in colloquial usage, and Crake never calls them Crakers. They refer to themselves as 'the Children of Crake', investing their creator with paternal, quasi-Freudian qualities. They are, in evolutionary terms, the latest member of the genus *Homo*, which includes not only *H. sapiens*, but also *Homo habilis, erectus, neanderthalensis, floresiensis* and *altai* (this last sometimes known as the Densiova hominin) — though this field is in constant flux and these designations are liable to alter as new evidence is discovered and new theories drawn up to account for it. One view of Crake's understanding is that changing the biology of the animal will also change its social behaviour; this draws a parallel with views associated with E.O. Wilson. Wilson's works have appeared on all of Atwood's lists of recommended reading for the trilogy, and Wilson appears as a Saint in *The Year of the Flood*.[124] Among the life forms contributing to Craker genetics are: jellyfish, baboons, octopodes, mustelids, and leporids.[125] Additional behaviours — although it is not clear how these are "encoded" in the Crakers — were suggested by species such as penguins, silverfish, songbirds, and crabs.[126] The features with which these changes in

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[123] Kozioł, p. 493, disagrees; he argues that they share with *H. sapiens* only 'the form of their body, a relatively high level of intelligence and their ability to speak'. This overstates the case; at the end of *MaddAddam* they are shown to be able to mate successfully with *H. sapiens*, producing non-sterile offspring. For one (recognisably incomplete) definition of "species", this means that *H. sapiens* and the Crakers are not distinct from one another.

[124] On oryxandcrake.com *The Future of Life*; on yearoftheflood.com *The Creation: An Appeal to Save Life on Earth*; Margaret Atwood, *Year*, p. 293. Finally, Atwood reviewed Wilson's first novel, *Anthill* in 'The Homer of the Ants', *The New York Review of Books*, 8 April 2010 <http://www.nybooks.com/articles/2010/04/08/the-homer-of-the-ants/> [accessed 12 July 2018].

[125] Margaret Atwood, *Oryx*, pp. 117, 194.

[126] Margaret Atwood, *Oryx*, p. 194.

genetics and behaviour endow the Crakers include the following: rapid growth and maturation; a life span limited to thirty years; strengthened immune function; emission of a built-in insect repellent; inability to conceive of racism (relating to skin colour); alteration of digestion to form and consume caecotrophs; seasonal reproductive cycle; multi-partner reproduction; predator-deterrent urine; self-healing by purring; unearthly vocal abilities, including the ability to communicate with Pigoons; enhanced vision; UV-resistant skin.[127]

These features render them better able to survive in the post-Flood world. Some features are inspired by biological features of existing non-human animals, but some, like their unearthly voices, are inspired directly by human art.[128] According to Niall Harrison, this multitude of different attributes makes them one of the most successful features of *Oryx and Crake*: 'The results are deftly handled, human and yet not-human, and altogether fascinating.'[129] Harrison compares them to aliens in sf programmes such as *Star Trek*; such aliens typically feature one human characteristic which is either exaggerated or entirely removed — by comparison Atwood takes on a much more complex task. Representing the full alterity of their subjectivity requires us to grasp their biology, and to try to understand their nascent culture.

The history of their development and growth is difficult to trace through the novel, and critics have differed in significant ways in terms of their reading of this history; I will be exploring it in much greater detail in Chapter Four on Mad Science, where I examine how Crake conceives, plans, and executes the design and manufacture of these neohumans. In

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[127] Citations describing these features are included in Appendix 6.

[128] Margaret Atwood, 'Inheritance Tracks', *BBC Radio 4 Extra*, 2013 <http://www.bbc.co.uk/programmes/b04tt83j> [accessed 21 May 2017]. Atwood nominates Joan Sutherland singing "Casta Diva" from *Norma* by Vincenzo Bellini as the track she would like to pass on, so that 'future human beings can know that we could once do things like this with our voices'. She explains, 'rather jokingly', that this is a direct inspiration for the Crakers' singing, and she concludes by remarking that Sutherland's singing is so unearthly that we question whether this is really a human being.

[129] Niall Harrison, 'Oryx and Crake', *Livejournal*, 2003, para. 10 <https://coalescent.livejournal.com/23015.html> [accessed 21 January 2018].

summary, Crake identifies human beings as too destructive to survive. He sees that in order to be viable in the long term, changes need to be made to their fundamental biology, and he devises a scheme whereby he will replace existing humanity with an alternate configuration without the problematic drawbacks. This neo-Malthusian view is akin to those held by Deep Green philosophers and ecocritics.[130] Crake approaches a major biotech company, and tells them that he will create a line of 'totally chosen babies that would incorporate any feature, physical or mental or spiritual, which they buyer might wish to select'; he anticipates this will be very popular with their customers.[131] They agree, and Crake designs his neohumans with the assistance — willing or unwilling — of the MaddAddamites. They 'alter ordinary human embryos, which we got from - never mind where we got them', and they enter a project of seven years of intensive research.[132] The Crakers are grown inside his private research facility, the Paradice Dome, where they are kept in an isolated pseudo-natural environment, to prepare them for release into the real world. *MaddAddam* recasts the history of this development process somewhat by the inclusion of the MaddAddamites and extensive discussion of their memories of working on the Paradice project. Several of these scientists disparage the Crakers, as either stupid, or as resembling Frankenstein's Creature. The MaddAddamites reveal some of the thinking behind certain features, and in their internal disputes with one another, reflect on the aims of the Paradice project, and its success or failure. They note, however, that several features of the Crakers were the sole work of Crake.

Once the Crakers have matured, they are trained in various survival tactics by Oryx. After the Flood has destroyed human civilization, the Crakers are led out of Paradice by

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[130] J. Brooks Bouson, 'A "Joke-Filled Romp" through End Times: Radical Environmentalism, Deep Ecology, and Human Extinction in Margaret Atwood's Eco-Apocalyptic *MaddAddam* Trilogy', *The Journal of Commonwealth Literature*, 51.3 (2016), 341–357 (pp. 347–48).

[131] Margaret Atwood, *Oryx*, p. 357.

[132] Margaret Atwood, *Oryx*, p. 356. The origin of these embryos is darkly hinted at throughout the trilogy, and Toby is accidentally sterilized after an operation to extract her eggs for sale goes wrong.

Jimmy, and they move to the beach, in the ruins of the old world, where they begin to form a society. Once free, they are protected and shepherded by Jimmy, now under his alias of Snowman. With them, he collaboratively explains their situation in terms of an invented mythology and a ritual storytelling practice, with Crake as a creator god and Oryx as his companion deity. In this phase, the Crakers show that their 'brains are more malleable than Crake intended', as Ivory Bill remarks.[133] They construct a totemic representation of Snowman to call him back to them, and their reverence of Crake and Oryx is fundamentally against Crake's plan, as is the implied recognition of Abraham Lincoln as their leader. The Crakers' seasonal mating habits, intended to stop heartbreak and sex crimes, results in the rape of both Ren and Amanda, as the Crakers cannot distinguish between a Craker woman in heat, and a female *H. sapiens* who exhibits the "blueness" of fertility constantly.[134] This represents the most significant subversion of Crake's intentions, as it puts the pacifist Crakers on a par with the dehumanised and violent Painballers, who also rape Ren and Amanda.[135] Despite Crake's attempt to forestall questions of temperance with biological adaptation, they nonetheless emerge. There are other apparently unintended consequences of their creation. The Crakers develop a kind of telepathic ability, which is only indistinctly represented in the novel. They can communicate with the silent Pigoons — though sometimes, as when Toby is telling the story of the pig who carried Snowman, she refers to grunting noises — but they can also seemingly sense Jimmy's internal mental landscape to some extent, indicating that this ability is more extensive than a superior ability to hear.

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[133] Margaret Atwood, *MaddAddam*, p. 331.
[134] Margaret Atwood, *MaddAddam*, pp. 21–22.
[135] Margaret Atwood, *Year*, pp. 408–9.

"Survival is insufficient": Neohumans and early hominins[136]

> It may be even life itself that he fears; and when life becomes a threat to life, you have a moderately vicious circle. If a man feels he can survive only by amputating himself, turning himself into a cripple or a eunuch, what price survival?[137]

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The comparison between the Crakers and the other members of the hominin taxonomic tribe creates a parallel between the depiction of the Crakers and our understanding of human evolutionary history. One significant work that creatively re-imagines this contested early period is William Golding's *The Inheritors* (1955), his favourite out of all his novels.[138] *The Inheritors* is focalised through Lok, whose tribe of Neanderthals is slowly exterminated by a mysterious encroaching group of humans. The narrative is stylised to represent this distinct viewpoint. In presenting the narrative in this way, Golding attempts to imaginatively recreate the perception and subjectivity of the older hominid. Although the final chapter reinforces the impression that modern humans have become the eponymous inheritors, they carry with them Lok's daughter with whom they are fascinated, hinting at the possibility of future interbreeding between the *H. sapiens* and the Neanderthals they have driven to extinction. *MaddAddam* has the same structure; the majority of the novel is told by the older variant of hominid, fully stylized with the detritus of their mental lives, such as obsessions with sex and with their individual status within the group, but this gives way, progressively, to the story as told by the new humans, which are an admixture of *H. sapiens*, Crakers, and Pigoons. In both *The Inheritors* and *MaddAddam*, the interests of all the species involved come together only in storytelling; Lok's baby is protected from the new humans by the myth that the

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[136] "Survival Instinct", *Star Trek: Voyager* [DVD]. Subsequently, it has been frequently alluded to in post-apocalyptic literature, such as in Emily St. John Mandel, *Station Eleven*, Kindle (London: Picador, 2014).

[137] Margaret Atwood, *Survival*, p. 33.

[138] William Golding, *The Inheritors* (London: Faber & Faber, 2012).

Neanderthals are a kind of forest devil, and the Crakers are bound to the *H. sapiens* by their system of myth which is an interpolated view of the catastrophic autobiographical history lived by the survivors of Crake's plague.

To some extent, the progression of Atwood's depiction of humanity's relationship with the neohuman Crakers across the trilogy reflects shifts in the scientific consensus about the circumstances surrounding our own evolutionary heritage. The disputes about the classification of our ancestors, and the ways in which they interacted, continue to be fierce. However, in recent years, particularly with the publication of several studies in 2010, significant genetic evidence has been brought to light which suggests that Neanderthals and Denisovans coexisted and bred with modern humans.[139] Part of understanding Atwood's speculative fiction is seeing it as responsive to both historical and scientific understanding, and this is reflected in the changing status of the neohumans across the trilogy. Atwood's changes to the structure of intra-humanoid relations across the *MaddAddam* trilogy fits the pattern of novelistic and scientific similitude that would be expected from speculative fiction on Atwood's model.

Throughout the trilogy, relations between species are carried out through elaborately staged rituals — at least, as elaborately as is practical in a broken world. Crake attempted to remove the propensity for "religious" thinking from the Crakers, but couldn't eliminate it entirely without divesting the Crakers of all intellect. Thus, their early survival training provided by Oryx is undertaken in a process that becomes formalized as a ritual, one that Snowman later adapts in line with the circumstances; this may be a factor in Crake's apparent choice of Snowman as the guardian of the Crakers. After leading them out of the Paradice dome, Snowman is forced to resort to myth-making to convey dangers to the Crakers, to

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[139] David Reich and others, 'Genetic History of an Archaic Hominin Group from Denisova Cave in Siberia', *Nature*, 468.7327 (2010), 1053–60 <https://doi.org/10.1038/nature09710>.

explain their present situation and the apparent biological differences between human beings and Crakers. The process of putting on the red hat, eating the fish, and listening to the broken watch become the central mediation between Crakers and humans, and, in the end, between the new community of species. If this ritual denotes a tradition, it is passed from Oryx to Snowman, from Snowman to Toby, and from Toby to her Craker apprentice Blackbeard, who eventually writes down the Story of Toby, and so initiates a new literary-cultural tradition that escapes the Flood.

Similarly, the three-way human-Craker-Pigoon interaction is ritualized. The Crakers, acting as ambassadors, unite the humans with the Pigoons in a complicated series of negotiations which interlink reparations for past crimes (the shooting of other Pigoons, and the "murder" of a piglet) with progressive ideas of reconciliation, as well as military and political alliance. Later this agreement is partially violated, when three juvenile Pigoons raid the crops, and 'a conference [is] called', to which the Pigoons send a delegation of three adults.[140] This situation is resolved by a recognition that juveniles will always push the boundaries; this recognition is shared alike by the adults of all three species. Facilitating this interspecies dialogue is complex. Blackbeard describes the methods of communication available to him:

> If you look at this writing I have made, you can hear me (I am Blackbord [sic])
> talking to you, inside your head. That is what writing is. But the Pig Ones can
> do that without writing. And sometimes we can do it, the Children of Crake.
> The two-skinned ones cannot do it.[141]

As these complicated relationships begin to unfold, set down for us in the accounts written by Blackbeard and Toby, we gain new insights into the self-visualizing of the other two sentient species. Pigoon, which is initially a nickname that Jimmy instinctively relates to balloon, is

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[140] Margaret Atwood, *MaddAddam*, p. 378.
[141] Margaret Atwood, *MaddAddam*, p. 376.

transformed into the more formal "Pig One". The Crakers are the Children of Crake. It is the until-recently-privileged human beings who suffer the dubious honour of being "two-skins", and though the Crakers are above being suspicious, one cannot help but wonder whether the previously devilish humans might not deserve the implications of dishonesty and false-facing that "two skin" implies. As in *The Inheritors*, the older hominin is treated as a source of danger, of devilry. They are immediately identifiable to the neohumans by their vulnerability and by their excessiveness; these are both shown by their need for clothes.

Oryx and Crake is very much a dark satire, presenting the full horror of Hobbes' dictum that "man to man is an errant wolf".[142] It reflects the negative interpretation of our own evolutionary history, where the arrival of *H. sapiens* in any area immediately forced any other hominin species into decline and eventual extinction. Jared Diamond, in his Pulitzer-prize winning *Guns, Germs and Steel* (1997) argues that there may be a parallel between the extinction of Neanderthals and the genocides of indigenous peoples in our own era.[143] This mentality is also behind Steven Hawking's recommendation that we avoid making contact with alien species: 'We only have to look at ourselves to see how intelligent life might develop into something we wouldn't want to meet.'[144] This culminates in the Holocene extinction, which is the term for the ongoing reduction in biodiversity associated with human activity; this is sometimes used as an alternative to the term Anthropocene, and sometimes the two are distinguished. E.O. Wilson, in an early article noting the decline of biodiversity, notes that

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[142] Thomas Hobbes, 'De Cive: Dedication and Preface', 1651 <http://www.constitution.org/th/decive00.htm> [accessed 29 May 2014]. He explicates this view more fully in his most famous work on the state of nature and political sovereignty; *Leviathan*, ed. by Richard Tuck (Cambridge: CUP, 2008).

[143] Jared Diamond, *Guns, Germs And Steel: A Short History of Everybody for the Last 13000 Years* (Vintage Digital, 2013).

[144] Stephen Hawking, 'Hawking Warns over Alien Beings', *BBC News*, 25 April 2010, section UK <http://news.bbc.co.uk/1/hi/8642558.stm> [accessed 29 May 2014].

No comfort should be drawn from the spurious belief that because extinction is a natural process, humans are merely another Darwinian agent. The rate of extinction is now about 400 times that recorded through recent geological time and is accelerating rapidly. Under the best of conditions, the reduction of diversity seems destined to approach that of the great natural catastrophes at the end of the Paleozoic and Mesozoic Eras, in other words, the most extreme for 65 million years. And in at least one respect, this human-made hecatomb is worse than any time in the geological past. In the earlier mass extinctions, possibly caused by large meteorite strikes, most of the plant diversity survived; now, for the first time, it is being mostly destroyed.[145]

Since Wilson's article, the biodiversity crisis has deepened; Pimm et al put the rate of extinction at between 100 and 1000 times background levels.[146] Most recently, Ceballos, Ehrlich and Dirzo have argued that the 'sixth mass extinction is already here'; they 'suggest that as much as 50% of the number of animal individuals that once shared Earth with us are already gone, as are billions of populations' in a 'biological annihilation' that has grave consequences for the future possibility of human life.[147] *Oryx and Crake* represents this biodiversity crisis by memorialising the elimination of species — in games such as Extinctathon, in the use of extinct species as code names for the MaddAddamites, and in Adam One's sermons in *The Year of the Flood*. As Maren Keller points out, Atwood's trilogy depicts a "Best-Of" selection of all of the worst catastrophes present to the popular imagination — Keller picks out 'dehumanizing security services, a surveillance state, [and] catastrophic climate change'.[148] Much of *Oryx and Crake* is concerned with how our 'monkey

[145] Edward O. Wilson, 'The Biological Diversity Crisis', *BioScience*, 35.11 (1985), 700–706 (p. 703) <https://doi.org/10.2307/1310051>.

[146] Stuart L. Pimm and others, 'The Future of Biodiversity', *Science*, 269.5222 (1995), 347–50 <https://doi.org/10.1126/science.269.5222.347>.

[147] Gerardo Ceballos, Paul R. Ehrlich, and Rodolfo Dirzo, 'Biological Annihilation via the Ongoing Sixth Mass Extinction Signaled by Vertebrate Population Losses and Declines', *Proceedings of the National Academy of Sciences*, 114.30 (2017), E6089–96 (p. 6095) <https://doi.org/10.1073/pnas.1704949114>.

[148] Maren Keller, 'Atwood-Roman "Die Geschichte von Zeb": Oh Fuck', *Spiegel Online*, 3 December 2014, para. 4 <http://www.spiegel.de/kultur/literatur/atwood-roman-die-geschichte-von-zeb-a-

brains', wired for fulfilling our own desires for wealth, sexual gratification and little else, have led us to cannibalise ourselves and the environment to achieve those ends, though only completely for a tiny minority who reside in walled Compounds.[149] This is the portrait of human greed that Atwood provides. The rest of humanity live in sprawling pleeblands, a mess of dubious burger joints, sex clubs, and gang-ridden tenement blocks. Crake's solution to the problem of human over-population and environmental devastation is radical; but his highest value is biodiversity and the continuing survival of life on the planet — not solely human life.

One difference in the evolutionary comparison between our extinction and the extinction of the Neanderthals is that the Crakers are unable to use guns and steel to ensure their superiority; their only advantage in the immediate evolutionary race with humanity is their immunity to Crake's bioweapon. Crake's haemorrhagic virus is concealed inside BlyssPluss pills which take advantage of the 'nature of human nature' by combining a medication which prolongs youth with an aphrodisiac, protection against sexually transmitted diseases, and a covert sterilising agent.[150] This is a second way in which Atwood introduces the concept of temperance; pre-Flood humanity is damned by its own excessive desires. As Jimmy reluctantly acknowledges, he doesn't even really need to create advertising for it, as the product sells itself. The Crakers are immune to this virus in more ways than one; not only do they have bioengineered immunity, they also do not suffer from 'the nature of human nature', since they mate seasonally in a complicatedly polygamous way, and have a lifespan of thirty years. As Snowman puts it, they are "immune to him", in that they are biologically

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958026.html> [accessed 29 May 2014], translation mine.

[149] Margaret Atwood, *Oryx*, p. 114.

[150] Margaret Atwood, *Oryx*, p. 346; it is unclear if a sterilising agent is actually present, or if it is to dissuade Jimmy from experimenting with BlyssPluss, or if Crake ambiguously refers to the lethal disease concealed in the pill when this feature is described.

incapable of embracing his more damaging human ideas because they have been designed to remove the dangerous aspects of humanity.

The Year of the Flood spends less time on the issue of human-Craker relationships, focusing instead on the lives of the God's Gardeners. The Crakers themselves only enter the narrative in the final thirty pages, just enough to advance the situation that ended *Oryx and Crake* by a few minutes. During their first contact with Ren and Toby, one of the first things that falls away is the notion of embarrassment; biological differences have to be accounted for immediately. The male Crakers smell the pheromones coming from Ren, and respond by offering her flowers, singing to her and sprouting 'huge blue erections'.[151] This behaviour is completely opaque to Ren, but Toby, who is apparently able to correctly intuit the biological explanation for this, invents an excuse and prevents disaster. Interestingly, this moment is effectively rewritten in *MaddAddam* (or perhaps simply made more explicit), when the Crakers appear during the St Julian's Feast; they untie the Painballers, and forcibly have sex with both Amanda and Ren. The text does not dwell on this moment, and it is not exactly portrayed as rape. Neither Amanda nor Ren regard the Crakers as rapists subsequently, by contrast with the Painballers whose rape of the two women is crucial in portraying them as evil. In her flashback view of these events, Toby describes the rape of the women by the Crakers as 'a major cultural misunderstanding'. She goes on to think 'If only she had a pail of cold water!', an unusually comic touch at such a moment, which partially conceals what is actually taking place. The difference between the portrayal of these two rapes highlights that the Crakers are supposed to be acting primarily or wholly from instinct, whereas the Painballers are acting viciously.

Snowman, apparently the last of the ragged line of *H. sapiens*, musters enough of the rosier side of humanity to protect, and, after a fashion, nurture the Crakers. Their interactions,

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[151] Margaret Atwood, *Year*, p. 492.

always prefaced by a chorus of "Oh Snowman", typically consists of a sequence of endless questions which Snowman cannot answer, sometimes because the answers are too dangerous, and sometimes because the answers would be simply incomprehensible to the Crakers. Snowman and the Crakers understand each other best when talking about shared experiences; for instance, shared dangers in the form of predators. Atwood's particular focus on expletives is revealing. Expletives often identify what we find repugnant or embarrassing: faecal matter, disease, sex, and, historically, religious transgressions. The non-transference of human expletives to the Crakers points out one way in which we demonize our physical bodies, which Atwood argues contributes to the transhumanist desire to become neohumans, the hatred of our leaky, vulnerable human bodies as they currently exist.

This is portrayed most clearly in *MaddAddam,* specifically the use of 'Oh Fuck', which Snowman repeats several times while hallucinating. Because "Oh Fuck" takes on the same form as the Crakers' form of address, when Toby questioned about it she is forced to invent a spirit which springs invisibly to the aid of people who call on it in times of need. While these initially appear to be humorous difficulties in adjusting the relationships between the two species, the true meaning is lost in mutual incomprehension. To combat this, Toby develops a narrative that fits into the ritualized structure of communication. First she has to eat a fish, put on the red hat and listen to Snowman's broken watch. Then she proceeds to tell the story, but the novel presents only her side of the conversation, a constant feature in *MaddAddam*. Atwood forces us to imagine the Crakers' responses from Toby's part of the dialogue, like eavesdropping on someone else's phone call on the train. The ritualized dialogue of the Crakers make it easier to imagine these absent interjections. The lack of speech marks in the text during the chapters in which these stories are told mark a kind of intimacy, and further separate them from the reset of the text. It suggests that these episodes of storytelling have a

special function beyond speech, that they somehow transcend speech, or that, as myths, the storytelling sections are illocutionary acts.[152] "The Story of Zeb and Fuck" is paradigmatic in this sense, because while it obscures the purely human meaning of "Oh Fuck", it expands the mythic universe of the Crakers. The scenes in which Toby and Zeb are alone — an example of the lovers' room chronotope identified by Pilar Cuder-Dominguez — are likewise unenclosed with speech marks, the pattern of conversation and the register of the writing marking sufficiently who is speaking.[153] This creates a parallel between the two storytelling phases which suggests that they may not be radically different after all. Once this is observed, other similarities begin to emerge. In both situations, the novel recounts not just the narrative being told by the characters, but also represents the actions, emotions, and thoughts of the audience, whether this is directly — as in the lovers' room — or indirectly in the storyteller's responses to the Crakers. Thus Craker storytelling is a complex literary balance to strike; "The Story of Zeb and Fuck" would be purely comic, as Zeb sniggers in the bushes at Toby's attempt to recount a story that links the two mythic figures. However, it is during this story that Toby discloses to the Crakers that Pilar has taken on a mythic role for her:

> I have a different helper, whose name is Pilar. She died, and took the form of a
> plant, and now she lives with the bees. […] Yes, I talk to her even if I can't see
> her. […] She is less like thunder, and more like a breeze.[154]

Her own beliefs and spiritual practices are thus enmeshed with those of the Crakers. When she was the Edencliff Garden's Eve Six, Toby had her private doubts; as she engages in storytelling with the Crakers she begins to shed those doubts.

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[152] See J.L. Austin, *How to Do Things with Words*, ed. by J.O. Urmson and Marina Sbisa, Second edition (Cambridge, MA: Harvard University Press, 2005), especially chapter 6; also John Searle, *Speech Acts: An Essay in the Philosophy of Language*, Kindle (Cambridge: CUP, 2011), chapter 3.
[153] Pilar Cuder-Domínguez, 'Margaret Atwood's Metafictional Acts: Collaborative Storytelling In *The Blind Assassin* And *Oryx And Crake*', *Revista Canaria De Estudios Ingleses*, 56 (2008), 57–68 (p. 59).
[154] Margaret Atwood, *MaddAddam*, p. 203.

Atwood's trilogy thus introduces us to the eventual fate of the human species which is extinction, in part by mirroring the fate of our own evolutionary ancestors who have already been rendered extinct, along with 99.99% of species that have lived on earth.[155] The broken world has re-written the rules of what is acceptable, and a new set of conventions and rituals are necessary to make communication possible between the thoroughly disparate groups that find themselves struggling for survival in the catastrophic wasteland left by our own civilization's casual disregard for the environment. As Todorov puts it, 'the cruellest painter of the human heart can bequeath us an art of living', and Atwood's dark and disturbing trilogy surely has much to say about ourselves as we currently are.[156] The trilogy thus shows transhumanist logic to aim at the extinction of our species, as our descendants, who benefit from these genetic alterations, differ from us in substantial ways. Like the Neanderthal, some portion of *H. sapiens* DNA will continue in the new hominin group, but, also like the Neanderthal, they will cease to exist as a separate species. The culmination of the desire to escape from humanity is ultimately represented by Atwood as hubris, which Nussbaum describes as follows:

> There is a kind of striving that consists in trying to depart from that life to another life. This is what hubris is — the failure to comprehend what sort of life one has actually got, the failure to live within its limits (which are also possibilities), the failure, being mortal, to think mortal thoughts. Correctly understood, the injunction to avoid hubris is not a penance or a denial — it is an instruction as to where the valuable things for us are to be found.[157]

In general, virtue ethicists regard the transhumanist project as such an attempt to deny the sort of animals that we are; Thomas Hill Jr. suggests that we need to practise humility, and that

[155] Richard J. Epstein and Y. Zhao, 'The Threat That Dare Not Speak Its Name: Human Extinction', *Perspectives in Biology and Medicine*, 52.1 (2009), 116–25 <https://doi.org/10.1353/pbm.0.0066>.

[156] Tzvetan Todorov, *Imperfect Garden: The Legacy of Humanism* (Princeton, N.J: Princeton University Press, 2002), p. 173.

[157] Martha Nussbaum, *Love's Knowledge: Essays on Philosophy and Literature* (New York, NY: OUP, 1992), p. 381.

doing so involves practising self-acceptance of this kind.[158] The attempt to depart from the human in the trilogy is only undone by the propensity for storytelling which, as Atwood says in numerous interviews, is a foundational human trait. In concluding the trilogy in this way, Atwood returns to the humanist mode, where improvement by educational, social, and narrative means are primary, not biologically determined rules. The Crakers may not need meat to survive, but if Snowman had told them different stories, their pacifism could have turned out very differently. While Atwood responds to the recognition that all forms of life are interconnected, and that survival and flourishing is necessarily a communal activity, these can only be realised for us from within what sort of life we actually have.

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[158] Thomas E. Hill, 'Ideals of Human Excellence and Preserving Natural Environments', in *Environmental Ethics For Canadians*, ed. by Byron Williston (Oxford: OUP, 2012), pp. 249–57.

3 | Genetically Modified Foods

Food events in children's literature are clearly intended to teach children how to be human.[1]

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If Desdemona was fat, who would care whether or not Othello strangled her?[2]

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Go three days without water and you don't have any human rights. Why? Because you're dead. Physics and chemistry are things you just can't negotiate with. These […] are the laws of the physical world.[3]

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One significant way in which Atwood foregrounds the ethical concerns in the trilogy is the presentation of food, and the cultural practices that surround it. This includes the breeding and raising (and slaughtering, when talking about livestock) of the food in question, as well as its processing, packaging, advertising and retail. Looking at this constellation of practices reveals the connections between the individual choices of the protagonists and the wider political and economic realms through which they move — and helps to trace the effects of these same connections between our own consumer habits and the global agricultural system of commerce. Her interest in food places the trilogy with works such as J.M. Coetzee's *The Lives of Animals* (1999) and Jonathan Safran Foer's *Eating Animals* (2009) in its preoccupation with the complicated ethics of eating. Atwood uses the consumption of food as

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[1] Carolyn Daniel, *Voracious Children: Who Eats Whom In Children's Literature* (Oxford: Routledge, 2009), p. 12.

[2] Margaret Atwood, *Lady Oracle* (London: Virago, 1982), p. 52.

[3] Robert McCrum, 'Margaret Atwood Interview: "Go Three Days without Water and You Don't Have Any Human Rights. Why? Because You're Dead"', *The Guardian*, 28 November 2010, section Books, para. 12 <https://www.theguardian.com/books/2010/nov/28/margaret-atwood-interview> [accessed 21 February 2017].

the pre-eminent pattern of acquisition — over and above sex and alcohol which both also play prominent roles in the trilogy — and thus food plays an important role in articulating the stark warning that Atwood presents. She expresses the dire extent of our situation by connecting it to a fundamental necessity which underpins our biological existence. Greed for more, and more diverse, sensual pleasures pushes Atwood's society and characters beyond their human limits, repelled by their own hungers. Though it has been argued contra-transhumanism that 'Being human to Atwood clearly implies acceptance of the whole range of our physical, emotional, spiritual, and intellectual state', and that 'to deny or splice out any of that state is to amputate the self as it has been known so far', that acceptance must take a broader form than simply rejecting biomedical enhancement, since this is in itself merely an extension of excessive desire.[4] Being a human involves more than passively accepting our natures for Atwood — it must be something that we seek to shape from within. Our desires have to be put within the frame of *eudaimonia*, the good life as it is possible for the type of beings which humans are, and the pre-Flood society that Atwood depicts has lost the ability to exercise temperance to achieve that end. Atwood portrays escaping from our nature by biomedical enhancement as simply the playing out of that rejection of ourselves, when what is really needed is the practical wisdom to limit our own desires, to connect those desires with disastrous outcomes currently unfolding in the biosphere.

In the previous chapter, I considered the role of *Survival* and argued that, while ostensibly offering a route into CanLit, it is much more useful as a route into Atwood's creative practice, as is her definition of speculative fiction. Another text by Atwood can be understood to operate in the same fashion, though this time the book in question is not a work of literary criticism, but an anthology. *The CanLit Foodbook* (1987) is an anthology of

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[4] Shannon Hengen, 'Margaret Atwood and Environmentalism', in *The Cambridge Companion to Margaret Atwood*, ed. by Coral Ann Howells (Cambridge: Cambridge University Press, 2006), pp. 72–85 (p. 74).

CanLit pieces selected by Atwood that was sold to raise funds for PEN International by the

Anglophone branch of PEN Canada. The Atwoodian blurb sums up the anthology as:

> BEING a compendium of items,
>
> from the banal to the passing strange,
>
> from boiled eggs to lizard tongues and
>
> human toes, from the serious to the frivolous
>
> WHICH people see fit to put into their
>
> mouths.[5]

This suggests the real importance that Atwood attaches to food, and gives us a good

reason to believe that Atwood will use food to explore issues and bring out important textual

qualities — that is to say that food often connotes or references some other value in Atwood's

work. Her introduction to the collection is very revealing about how she views the role of

food in her writing, and this helps to build a picture of food as a vibrant and powerful tool for

understanding the relationships her characters have to themselves, to other characters, and to

their societies. Unlike *Survival*, which relied on its audience to fill in Atwood's argument

with their own knowledge (or lack thereof) of CanLit, *The CanLit Foodbook* presents a

wholesale range of examples, and makes an argument by compiling evidence. In *Survival*,

when Atwood stresses the role that cannibalism plays in CanLit, it is most persuasive when it

is tied into the legend of the Wendigo — but in this book, the examples create a whole series

of cannibalistic-resonances which will be central to a later portion of this chapter. *The CanLit

Foodbook* thus emphasises the expansive and encompassing nature of CanLit: among the

contributors are several writers close to Atwood, including Graeme Gibson and Joyce

Barkhouse, entwining Atwood's creative practice with a circle of creative relationships. The

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[5] *The CanLit Foodbook: From Pen to Palate - a Collection of Tasty Literary Fare*, ed. by Margaret Atwood (Toronto, ON: Totem Books, 1987), p. ii; I have maintained the line arrangement of this quotation because, while fulfilling the function of a blurb, it has the character of Atwood's poetry.
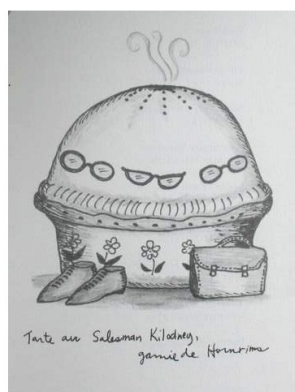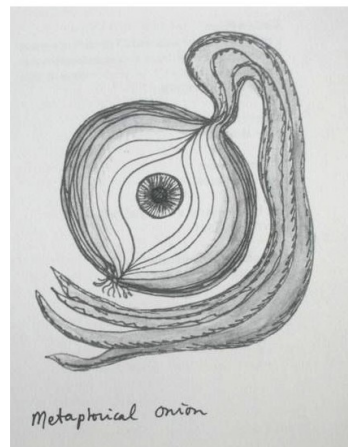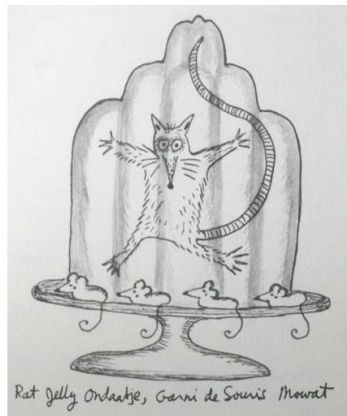
Illustration 1: Atwood's cartoons in The Canlit Foodbook placed side-by-side

collection also makes use of Atwood's talents as a cartoonist, and she provided several illustrations in the book which make a play on particular contributions included in it.

Beyond this, *The CanLit Foodbook* develops some other important themes which will emerge in later chapters — of particular interest is the fact that the book was written to raise funds for an organisation which seeks to foster the significance of literature in society by protecting art and artists, dispelling 'race, class and national hatreds', and championing 'the ideal of one humanity living in peace in one world'.[6] This book represents a political activism, and a view of literature in which the works of poets, playwrights, editors, essayists, and novelists, intervenes in the quotidian details of our moral lives. *The CanLit Foodbook* can thus be read as a highly significant piece of work in Atwood's oeuvre because it ties together all these threads, bringing the food on the table into a relationship with authorial freedoms and participation in democratic society.

By looking at three aspects of the foodways in Atwood's writing, we can see how her depiction of food constructs the argument that biomedical enhancement represents a rejection of ourselves, and that a better course would be to exercise temperance in the face of excess.[7] Initially, it is helpful to look at Atwood's writing for children to see how she creates patterns of desire and acquisition, more complicated versions of which play out in the *MaddAddam* trilogy.[8] In almost all of her children's fiction, food plays a central role in mediating social relationships, establishing as fundamental the rules of commensality.[9] Secondly, by

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[6] PEN International, 'PEN Charter PEN International', 2016 <http://www.pen-international.org/pen-charter/> [accessed 12 September 2016].

[7] "Foodways", a term from the social sciences, refers to the eating habits of a people or region, as well as practices surrounding the production and consumption of food.

[8] Karen F. Stein, *Margaret Atwood Revisited* (New York, NY: Twayne, 1999) is one of the few Atwood critics to mention Atwood's children's literature.

[9] 'Commensality literally means eating at the same table (*mensa*). In its broader general meaning, it describes eating and drinking together in a common physical or social setting. Eating is, in all cultures, a social activity and commensality is undeniably one of the most important articulations of human sociality.' *Commensality: From Everyday Food to Feast*, ed. by Susanne Kerner, Cynthia Chou, and Morten Warmind (London: Bloomsbury Academic, 2015), p. 1.

examining the disgust responses to radically genetically modified food sources, such as the ChickieNob, we can see how desires for this food reflect disgust directed at our actual bodily selves; I bolster this claim with reference to Nussbaum's wider account of disgust. Finally, the texts describe extreme foodways, primarily cannibalism, and examining the depictions of these extremes can help us to illuminate the mean toward which Atwood's trilogy is pointing. Behind the cannibalism of humans brutalising and eating themselves and their genetic near-cousins, the Pigoons, lies the wendigo, a figure from Canadian folklore, and a key symbol for Atwood.[10] Atwood has recently depicted a number of different ways of 'going wendigo', not only in the *MaddAddam* trilogy, but also in the online collaboration with Naomi Alderman, *The Happy Zombie Sunrise Home* (2012), written as part of the Rolex Mentors and Protégés Initiative. Taken together, these texts reflect and clarify the importance of foodways to Atwood's trilogy, and further illuminate the ways in which the novel can be a moral guardian of the community, by laying 'claim to a certain kind of truth — the truth about human nature'.[11]

Early Children's Literature

In examining Atwood's children's literature, I do not suggest that the sometimes quite simple messages can be extracted from those stories and then used to demonstrate equally simple messages in the adult fiction. Rather, it may be said that there is a continuity between moral views expressed by Atwood in her children's fiction and her adult fiction; ideas that arise in the children's stories that analogously appear in other more complex, and frequently contradictory, forms in the adult fiction. For instance, *Up In The Tree* (1978) and *Oryx and*

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[10] Danette DiMarco, 'Going Wendigo: The Emergence of the Iconic Monster In Margaret Atwood's Oryx and Crake and Antonia Bird's Ravenous', *College Literature*, 38.4 (2011), 134–55 (p. 136).

[11] Margaret Atwood, *In Other Worlds: SF and the Human Imagination* (London: Virago, 2011), p. 58.

Crake have a number of similarities; it is hard not to see the two best friends, ensconced in their branches and whose survival is threatened by lack of supplies, as in some way analogous to Snowman's situation in zero hour, living isolated in a tree without a ladder. Characters in Atwood children's fiction are often out of balance with their society (including their parents and friends), and wasteful of resources (specifically food). In the course of the books, these characters acquire the practical wisdom to enjoy eating without being wasteful and without over-consuming. When we look at the adult fiction, and particularly the *MaddAddam* trilogy, we can see extensions of the same patterns of consumption, increasingly diverging into other areas of sensual pleasure. These often end in apparent disaster after a failure to constrain desire. However, the virtue ethicist would not see the value primarily in the final stark warning about vice, but rather in the entire process of shaping the relevant virtues and vices, and in the language used to do so. Exploring the process and the language allows us to better judge the things that matter and the things that do not. While temperance is a solid general term for this virtue, it is important to note that it is really only in literature, and perhaps especially in the novel, that the subtleties involved in vices and virtues can be adequately presented:

> There are subtle differences between kindness, compassion, pity, charity, neighbourliness, and caring, and it would serve no good purpose to obscure them by designating all those qualities with a single name. It would take the skills of literary writing to articulate those differences adequately.[12]

In Atwood's earliest works of children's literature, the young protagonists must learn about the proper relations between animals — including human beings — and their environment to overcome various obstacles. In two of the three of these early books food is the primary tool for illuminating this relationship. The protagonists come to perceive that certain animals must

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[12] Stan van Hooft, *Understanding Virtue Ethics* (London: Acumen, 2006), p. 128.

have certain types of sustenance to survive. *Anna's Pet* (1980), co-written with Atwood's aunt and award-winning children's author, Joyce Barkhouse, is the exception; instead, *Anna's Pet* is primarily about the appropriateness of the animal's environment. In *For The Birds* (1990) Samantha learns about the eating habits of various species of birds, and even adopts some of those habits herself when she is transformed into a Scarlet Tanager. And in *Up In The Tree*, Atwood's first novel for children, the pair of best friends, stranded in the tree when beavers eat their wooden ladder, complain that

> We've run out of pancakes,
>
> We've run out of tea,
>
> We'll have to eat LEAVES
>
> Up here in our tree![13]

Illustration 2: Atwood's illustration of the scarcity scenario in Up in the Tree

Atwood's illustration of this verse makes clear that this is a very distressing scenario, while by contrast the beavers, sated and replete from eating the ladders look happy and contented.[14]

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[13] Margaret Atwood, *Up In The Tree* (London: Bloomsbury, 2010), p. 14.
[14] Margaret Atwood, *Tree*, p. 8.

Illustration 3: Contented beavers eating ladders in Up in the Tree

Both *Up In The Tree* and *Anna's Pet* are for very young children, with only short pieces

of text per page and using straightforward and unambiguous language — in many ways, very

unusual features for Atwood. *For The Birds* is for more advanced readers, and features boxes

and sidebars written by Shirley Tanaka that give factual explanations of terms like

"migration", and offer tips for making gardens more bird-friendly. Unlike the previous two

books, it is paginated, to facilitate referencing. The language is more complex, and, as one

might expect, more comic, more ironic, and quite significantly darker. The phrase "for the

birds" is a North American idiom, indicating that something is trivial, or of interest to gullible

people, and is used as such by the father in the story to mean 'something [is] silly'.[15]

By learning about what is and what is not appropriate food, the protagonists of these

early children's books are brought into proper relationships to the natural world — these

being relationships that might be characterised as temperate and sustainable. In the case of

Samantha, this process of learning about food also brings her into better social relationships,

and she becomes reconciled to her new home through domestic environmental activism. If

Carolyn Daniel is right that 'food events in children's literature are clearly intended to teach

children how to be human', then in Atwood's children's fiction what that means is to learn to

be a type of human who is also appropriately connected to the natural world.[16] Samantha is

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15 Margaret Atwood, *For The Birds* (Buffalo, NY: Firefly Books, 1991), p. 5. In the final chapter I
    discuss Atwood's use of the phrase as the tagline for the documentary of her book tour, *In the Wake
    of the Flood*, which raised money for bird charities, including including BirdLife International.
16 Daniel, p. 12.

shown how human action, primarily driven by economic greed, has created huge problems for birds by disrupting their food supply. Areas which look like they should be abundantly full of food, such as the Vampire Forest, are actually death traps for birds, as pesticides introduced to destroy insect pests make their way into the food chain. Areas which have historically been full of food, like the South American rainforest, have been transformed into nightmarish deserts as the trees are felled for temporary plantations. Even seemingly innocent ponds, now preserves for wildlife, have previously been poisoned by hunters using lead shot; this particular scene, which focuses on a mallard drake who has lead poisoning, must be doubly distressing to Ms Merganser, who, while transformed into a crow, bears the name of a fish-eating duck. When Samantha injures the Cardinal, she is quick to apologise, but is immediately reprimanded by Ms Merganser:

> "I didn't mean to hurt it," said Samantha. | "That's what they always say when they poison rivers where birds fish, and chop down trees where they live. You human beings are always doing careless destructive things, and then being sorry afterwards."[17]

All of this creates a picture of human beings as creatures that are distanced from, and therefore destructively unaware of, the environment. Samantha begins the story as an obvious instantiation of this spirit; while trying to create 'a milk waterfall' she spills it all over the floor.[18] This is indicative of her distorted relationship with the world; she also treads on Furball, which causes him to scratch her father, and breaks her mother's vase of flowers. Thus she is initially marked out as a waster. By contrast, Ms Merganser is marked out in the narrative as a provider. Her appearance, as an elderly single woman with wild hair and forthright opinions, recalls the waspish grandmother Clio in *The Happy Zombie Sunrise Home*, and this suggests that she is one of Atwood's ambiguous and powerfully creative

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[17] Margaret Atwood, *For*, p. 9.
[18] Margaret Atwood, *For*, p. 5.

figures. Where Samantha has only tried to feed herself, Ms Merganser begins the story by feeding the birds in her garden, recalling the mother of the Surfacer in *Surfacing* — by the end of the story, Samantha has come to share this role, and there is an illustration of her feeding birds from her hands, just like the Surfacer's mother.

Illustration 4: Feeding the birds from her hand, as the Surfacer's mother does in the Surfacer's vision

Throughout the narrative, Ms Merganser's focus is on the provision of food for birds of all kinds, for Samantha, and only then for herself. Simultaneously, she gives voice to the awareness that all things are food for something else, putting it in the form of a proverb:

> "You've heard the saying, 'Small bugs have bigger bugs upon their backs to bite 'em, bigger bugs have bigger bugs, and so ad infinitum'?" "Actually I haven't," said Samantha. "Well, you have now."[19]

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[19] Margaret Atwood, *For*, p. 36.

Illustration 5: Samantha eats a beetle

Samantha's first act as a bird is to eat a beetle, which solidifies her new sense of being. Ms Merganser explains the reality of avian biology, which is that birds have to eat constantly to stay alive. Samantha's hunger re-emerges throughout the narrative. It is frequently coincident with her desire to return to being a human without the arduous task of going on the adventure with Ms Merganser. It is in this spirit she asks 'What's my mom going to say when I'm not home in time for lunch?'[20] Her hunger is patterned in such a way that she expresses it in human terms and insists on immediacy — for instance she 'could use a bowl of Cheerios and milk about now', and 'If she were a still a little girl she'd be looking out the car window for a hamburger place right about now'.[21] Each time this happens, she receives a short lecture

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[20] Margaret Atwood, *For*, p. 17.
[21] Margaret Atwood, *For*, pp. 11, 24.

about more appropriate foods from Ms Merganser, and then she is confronted with a food-related catastrophe, which requires a shift in Samantha's perceptions to seeing herself as a potential food item. In the first instance, she is targeted as prey by her cat, and in the second, in a notably masculine act of pseudo-hunting, a group of boys shoot at her with an air rifle. This evokes the Canadian hunting party in *Surfacing* which the Surfacer interprets as an instantiation of a toxic and spreading Americanism, solidifying the connections between the two texts. The same interpretation is consistent with the depiction of the juvenile hunting party in this narrative.[22]

Illustration 6: Hunting scene in For The Birds, reminiscent of Surfacing

However, *For The Birds* is not a fully misanthropic work, which would after all be surprising, and perhaps self-defeating, in a work of children's literature. A group of ideal humans, celebrated for their friendship with birds, appears approximately mid-way through. They enjoy 'the largest sport in North America', even though there aren't 'any playoffs and

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[22] As evidenced by the comparisons I have drawn, there is an extensive intertextual relationship between *For The Birds* and *Surfacing*, not least in their uses of mythic animal transformation.

you can't watch it on TV' — that sport is bird watching.[23] The birders have created a

sanctuary for migrating birds, Pelee island, and provide good feeding grounds in the form of

back gardens stocked with bird feeders, organic farms replete with wide field margins and

pest insects, and cemeteries planted in such a way as to be bird friendly.[24] It is these virtuous

folk on whom Samantha patterns her subsequent behaviour, and in doing so, by providing

food for (in this case non-human) others, Samantha comes into line with the societal and

environmental order. It is, in this way, also a work about Samantha claiming her own

identity. Her father is dismissive of both environmental concerns and, teasingly, of her

emotional state. He is focused primarily on his newspaper to the extent that he misses her

plans to put up a bird feeder. This suggests that Samantha's new-found environmentalism is a

way for her to express her difference.

Thus food choices also provide an index of her identity. As she learns about what is

appropriate food for birds, she also learns why such food items are appropriate. She sees a

garden worm in a new light, no longer repugnant, but as a source of nutrients: 'Look at all

that protein, stuffed into a handy dinner-shaped package […] [a] living sausage!'[25] This focus

on foods as nutritive rather than foods as primarily aesthetic and gustatory experiences puts

Samantha in the same frame as Snowman, who also ceases to see foods except in terms of

their survival value — in very many ways a good thing in his situation:

> […] he opens the can of Sveltana No-Meat Cocktail Sausages with his rusty
>
> can opener. […] The sausages are a diet brand, beige and unpleasantly soft —
>
> babies' turds, he thinks — but he manages to get them down. Sveltanas are

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[23] Margaret Atwood, *For*, p. 32.

[24] Pelee Island Bird Observatory (PIBO) is a charity devoted to the conservation of the migrating birds and their habitat. It was in part founded by Graeme Gibson and his son, also Graeme Gibson, and the elder continues (at time of writing) to be the chairman of the board. Margaret Atwood is also, at time of writing, on the board.

[25] Margaret Atwood, *For*, p. 13.

always better if you don't look. They're protein, but they're not enough for him. Not enough calories.[26]

Phillips, exploring the wordplay in their name, thinks the sausages are insufficiently nutritious because they must be 'dietetic (surely a first), even if the label does suggest a pun on 'Svetlana', a Russian name which hints that the sausages are marketed to a *babushka* who only dreams of becoming svelte.'[27] Overwhelmingly, the biological imperative to eat, and to eat the right amount of food that delivers genuine benefit, is celebrated by both *For The Birds* and *Oryx and Crake*. These survival foods indicate the basic nature of the creature who experiences the desire for them, and, as argued above, desiring inappropriate or excess food is to work directly against one's own survival — and thus the necessity of identifying appropriate foods and consuming them in appropriate amounts. The device of testing different foods as a way of exploring individual identity and relationships between the self and the environment extends beyond Atwood's children's fiction; in her recent poem "Ghost Cat", initially published on Wattpad as part of her *Thriller Suite* series, the eponymous cat, suffering from dementia, is shown to have lost her self because she can no longer identify what is appropriate for her to eat:

She'd prowl the night

kitchen, taking a bite

from a tomato here, a ripe peach there,

a crumpet, a softening pear.

Is this what I'm supposed to eat?

Guess not. But what? But where?[28]

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26 Margaret Atwood, *Oryx And Crake* (London: Virago, 2009), p. 175.
27 Dana Phillips, 'Collapse, Resilience, Stability and Sustainability in Margaret Atwood's *MaddAddam* Trilogy', in *Literature and Sustainability*, Concept, Text and Culture (Manchester University Press, 2017), pp. 139–58 (p. 150) <http://www.jstor.org/stable/j.ctt1wn0s7q.14> [accessed 8 January 2018].
28 Margaret Atwood, 'Ghost Cat', *Wattpad*, 2012, ll. 8–13 <http://www.wattpad.com/6050906-thriller-suite-new-poems-ghost-cat> [accessed 6 July 2015].

The sense of loss of memory, coupled with the italicised voicing of the cat's perspective, link this with Snowman in *Oryx and Crake*, whose experience is similarly fixated on food as an aide memoir, and whose thoughts frequently appear in similar typography and orthography.

As a group, Atwood's early children's fiction stresses the centrality of food for survival. Without food, the madcap adventures up in the tree and the romping through the Americas are doomed — and both stories clearly state as much. The stakes in the narrative are as high in the children's fiction as they are in the dystopian fiction. In the critical work of the same name, survival is posited as the central theme of Canadian literature — 'the main idea is […] hanging on, staying alive'.[29] Whatever the rest of Canadian literature may be doing, it is clear that survival is central to the Atwood portion of it.

Alliterative Children's Fiction

The structuring of desire for food alters slightly in what could be called the alliterative sequence of stories, namely: *Princess Prunella and the Purple Peanut* (1995), *Rude Ramsay and the Roaring Radishes* (2003), *Bashful Bob and Doleful Dorinda* (2006), and *Wandering Wenda and Widow Wallop's Wunderground Washery* (2011).[30] These stories were written more or less simultaneously with the *MaddAddam* sequence, and are in many ways an investigation, from a very different perspective and for a very different audience, into the importance of temperance to the continued life of humanity and the planet, which also arise in the dystopian trilogy. Despite the fact that the first was illustrated by Maryann Kovalski,

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[29] Margaret Atwood, *Survival: A Thematic Guide to Canadian Literature* (Toronto, ON: House of Anansi Press, 1972), p. 33.

[30] The latter three of these, those illustrated by Petričić, were recently gathered and published as *A Trio of Tolerable Tales* (2018), with monochrome illustrations. Moreover, in 2017 the final book was adapted as an animated series by CBC Television as *Wandering Wenda* in twenty-six eight minute and alphabetically-ordered episodes. Each episode opens with an introduction featuring Atwood; Wenda's catchphrase is "Wordplay will save the day."

and the later three by Dušan Petričić, this group is unified by its linguistic approach, and the choice of publication format. In the alliterative sequence, food ceases to be constrained by survival, and becomes decoupled from the necessity of selecting items of food that achieve that purely biological and evolutionary goal. Instead, food becomes a site of linguistic excess and imaginative brilliance. The issue of choosing appropriate food remains central, but the emphasis is on food as an indicator of personal identity rather than as means for survival. As such, these stories are more fanciful and exuberant, and play with the idea of what constitutes a meal, frequently contrasting types, flavours, and even state of freshness of food to generate complex and entertaining narratives.

The first two books of the sequence (*Prunella* and *Ramsay*) have food items — which are the source of trouble and consternation — in their names, suggesting the import of food to the narrative. Further, Prunella's name is derived from a foodstuff, and the prune is connected in the narrative with both excess and selfishness; the Wise Woman, when begging for scraps, asks for a 'used prune', and beyond the auditory pleasure of the assonance, this is not an attractive concept. However, the blurb of *Ramsay* perhaps overstates the case when it suggests that the whole plot is Ramsay's 'quest for a more refreshing repast', since Ramsay also leaves his family to be with Rillah and Ralph in the rectory, and this suggests that family, friendship, and the importance of asserting one's own choices, are also significant themes.[31] In these works, food ceases to be considered as isolated items, as in the case of the worm in *For The Birds*, and instead becomes something of a spread — even when it is ostensibly for a snack. Where, in the early children's fiction, dysfunctions indicated by poor food choice were solved by learning to choose food more appropriately, the alliterative sequence complicates the relationship by showing how food can extend the effects of intemperate decisions, and further distort practical reasoning about good choices.

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[31] Margaret Atwood, *Rude Ramsay and the Roaring Radishes* (London: Bloomsbury, 2006).

Illustration 7: Maids tidy up after Prunella

As in the early fiction, Prunella's intemperance is indicated by her excessive appetite. For breakfast she eats 'prunes and porridge', 'pineapple and passion-fruit punch', and Kovalski's illustrations show a maid removing a teetering stack of crockery from the royal bedroom.[32] She is incapable of preparing food, and of eating it without wastage: 'At supper it was hard for her to place the spoon precisely between her lips, so she spilled parsley and potatoes on her pinafore, producing spots.'[33] In contrast to the earlier works, this initial state of intemperance is exacerbated rather than addressed. She litters, leaving her 'peppermint wrappers in the potted plants.' She denies the Wise Woman even the unwanted and repugnant remains of her food: 'a piece of leftover porridge, or a peppermint, or a used prune'.[34] When she is in all but name cursed by the Wise Woman, she grows a spot, metaphorically transformed into an item of food, on the end of her nose. She falls into deep despair. To remedy her depression, and to avoid following the Wise Woman's instructions to do Good Deeds,[35] she eats increasingly large amounts:

> parsley and paprika soup, a pile of potted pigeon and pike and pickerel pancakes, and some pepper and porridge preserve, on a pretty plate patterned

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[32] Margaret Atwood, *Princess Prunella and the Purple Peanut* (Toronto, ON: Key Porter Kids, 1995), p. 3.
[33] Margaret Atwood, *Prunella*, p. 5.
[34] Margaret Atwood, *Prunella*, p. 9.
[35] This is an allusion to the morality play, *The Summoning of Everyman*, which is a significant intertext for *Prunella*.

with pendulous poppies […] pepperoni and marzipan pizza and some popcorn and pickles, with a piece of pecan and pickerel pie for desert.[36]

Illustration 8: Prunella's nose three stages of growth

In her essay "Deciphering a Meal", Mary Douglas charts the ways in which social relations are instantiated in how food is prepared, served, and consumed. To constitute a proper meal, Douglas writes, it must incorporate 'a number of contrasts, hot and cold, bland and spiced, liquid and semi-liquid, and various textures. It also incorporates cereals, vegetables, and animal proteins.'[37] Prunella's meals therefore contravene a number of the elements that Douglas outlines for proper eating — including the fact that the food is served on exquisite crockery to a lone individual in bed. As an invalid, the expectation is that Prunella will eat simple, nutritive foods, often sweet, akin to those eaten in childhood. Instead, she eats large amounts of confused dishes, which take elements from starters, main courses and deserts, and also violate the rigidly separated meal times, mixing breakfast with lunch and dinner. This becomes a feature of the alliterative works, as the aesthetics of the language come to take precedence over the

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[36] Margaret Atwood, *Prunella*, pp. 16, 18.
[37] Mary Douglas, 'Deciphering A Meal', in *Food and Culture: A Reader*, ed. by Carole Counihan and Penny Van Esterik (London: Routledge, 1997), pp. 36–54 (p. 41).

naturalistic depiction of food, increasingly mixing real food with disgusting or inedible elements simply for the aural quality of the description.

As she eats more and more of this fanciful stuff, the peanut on her nose grows — as if it were a parasite absorbing the nutrients of the food instead of Prunella. As it expands, characters continue to refer to it in terms of food; the next day, it is a large as a peach pit, and finally, as a pumpkin. In the same way, the growth of the peanut runs contrary to the devouring of the food — since the amount of food is decreasing. It is only when Prunella denies herself comfort food and begins to think of other people that the peanut decreases. Consequently, it can be read as a re-writing of the story of Pinocchio — only tellingly, instead of self-interested lies causing her nose to grow, for Prunella it is over-indulging her appetite.

Illustration 9: Prunella's corset

The story here moves into complicated areas involving the depiction of anorexia and overeating, specifically in the depiction of the female body. Kovalski's illustrations draw on Georgian era fashion as a visual indicator of period and status. Prunella starts the story

in a tall blond wig, wearing a very tight waisted corset. The second illustration of the book

shows Prunella's corset being pulled tight by two maids, compressing her waist. Her dress

includes huge pink skirts, and a plunging neckline. As the peanut grows, and she loses

confidence in her appearance; she takes to bed. Her wig becomes increasingly disarranged,

her clothing loose and draping, as the peanut continues to grow. When the peanut is at the full

extent of its growth, and she finally resolves on Good Deeds, Prunella changes into a simple

white high-necklined dress without a corset, and she ceases to wear a wig. As she progresses

through her Good Deeds, she discards her string of pearls for a simple cross. When she

completes her final task, she is wearing a plain white cap over her hair. The final image of the

story, which shows the princess pushing her new prince on a swing, is a comic reversal of

Jean-Honoré Fragonard's rococo masterpiece *The Swing* (c. 1767).

Illustration 10: The two swings side by side

Illustration 11: Prunella's transformation

Instead of wearing endless waves of lace finery as in the Fragonard, Prunella is attired

simply in a white dress, white cap, and she wears no make-up. The threatening and shadowy

suitor who lurks in the bushes of Fragonard's painting, is omitted, or perhaps transformed

into the exuberant prince — and it is the prince who rides the swing. The dynamic between

illustration and text here is complex and difficult. The illustrations imply an almost monastic

renunciation of food and fashionable clothing in favour of abstinence, and set of clothes that most closely resembles the maid's. The change from jewellery to a plain cross is also interesting — Atwood refers to herself as a strict agnostic, 'absolutely strict' — and her text makes no mention of a religious transformation.[38] There may be a sense, then, in which the illustrations are pushing Prunella beyond an altruistic reorientation towards thinking about other people rather than herself, which is the story that Atwood's text tells, and into a position of puritanism, in which desire as a whole is entirely reprehensible. There is something troubling in the illustrations' transformation of the forthright Prunella into a demure and retiring young lady. It is not one of Atwood's stories of a heroine's fall and rise, with an aspiration of reaching for the final of Atwood's victim positions — the creative non-victim.[39]

Illustration 12: The disgusting meal in Ramsay

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[38] Andrew Tate, 'Natural Lore', *Third Way*, 33.7 (2010), 26–31 (para. 43).
[39] The narrative shape of falling and rising is discussed at length in Anna Lindhé, 'Restoring the Divine within: The Inner Apocalypse in Margaret Atwood's *The Year of the Flood*', in *Margaret Atwood's Apocalypses*, ed. by Karma Waltonen (Newcastle upon Tyne: Cambridge Scholars Publishing, 2015).

By contrast, *Ramsay* begins with the opposite dysfunctional relationship to food — in fact, in a state of scarcity and starvation. The only food Ramsay has to eat is the noxious food cooked by his appalling relatives, which is by turns 'rock-hard', 'rubbery', 'wrinkled', 'raw', 'writhing', 'runny', 'rotten', 'riddled with roaches', 'rancid', and it frequently 'reek[s]'.[40] He goes in search of better provisions, and comes across a field of radishes. After picking one, and imagining how delicious it would be to eat, it comes to life and bites him, in a classic reversal of consumer and consumed. Here, food again intensifies rather than relieves his problems. The illustration of this incident, which is reproduced on the front cover, shows Ramsay and his friend Ralph the rat clinging together in a sea of round red radishes, which are coming alive and transforming into mouths, some with sharpened fangs, and some with evidently human teeth which creates the veiled suggestion of cannibalism.

Illustration 13: Ramsay and Ralph surrounded by vicious radishes

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[40] Margaret Atwood, *Ramsay*, p. 3.

There may also be something of agricultural-capitalist fantasy at work here, as the crop rises to defend itself from marauders without the need of a watchdog — property which enforces its owners' own rights. The interpretation of the significance of radishes aside, this is the first time that an item of human food displays agency, as opposed to humans showing agency under the threat of becoming food themselves. These strange radishes, appearing in a book published in the same year as *Oryx and Crake*, may have more direct connections to the genetically modified food of that novel than to any political reading. Certainly the CorpSeCorps would see the benefit of food crops that look innocent but prove deadly to those looking to steal it. This speculation is forestalled by the end of the novel, however, when the radishes turn out not to be food items but 'robot replicas, cleverly arranged to repel intruders' — and thus are mechanical in nature, not biological splices or genetically modified organisms.[41] Neither are they really food, despite their appearance; they exist purely as defences. The story of Ramsay travelling through the walls and past vicious defences to meet a lonely girl in the midst of a garden is thus partly a retelling of the Sleeping Beauty fairy tale. Rillah, the owner of the garden, halts the radishes, and offers Ramsay a rusk, which he happily accepts. This act of commensality creates a bond between Rillah and Ramsay, and the happy ending of the novel is when the two live in friendship in the 'romantic rotunda' where 'raspberries and rusks' are freely available.[42]

Complications in reading the narrative spring from the fact that Rillah, the only female character, provides the food. It seems likely that Ruby, one of Ramsay's three relatives, is also probably a woman, but the illustration render the relatives in a uniform and male outfit with no identifying features. A further complication is that the food that Rillah provides, and with which Ramsay ends up satisfied, are raspberries and rusks which are both sweet dessert

[41] Margaret Atwood, *Ramsay*, p. 23.
[42] Margaret Atwood, *Ramsay*, p. 23.

foods. Additionally, in the UK rusks have the connotation of being a teething aid. In asserting their independence, Ramsay and Rillah are choosing foods which are appealing but ultimately not satisfying. It is true, however, that they are the best foods available. This provokes the question of why, since radishes are healthy and — as Ramsay's description suggests — tasty, the radishes are not made available as food items at the end of the narrative. The revelation that they are actually 'robot replicas' temporarily stalls this question.[43]

While the narrative therefore resolves in friendship and Ramsay is no longer being starved, it is unclear whether the food that they end up with, which is babyish, is intended to represent fulfilment and "a happy ending" for its younger readers, who might imagine eating raspberries and rusks to be the height of gastronomic enjoyment, or whether the reader is ultimately supposed to imagine a future where these foods too become stultifying, generating a further need for adventures. In the food economy of the story, it may be as important that the raspberries and rusks are cooked and served properly, rather than being incompetently or incompletely cooked — because the radishes are initially the target of theft, and because they turn out to be agentive, they are not appropriate food choices. The rusks and raspberries are contained, they don't reek, and don't spill out across the illustrations like the disgusting repast cooked by Ramsay's family. They come to represent the temperate in that they are not gross. Interestingly, they are also not shown in the illustrations, which suggests that the somewhat Gothic abundance of the grotesque is better matched with Petričić's illustrative style than the temperate message the narrative suggests is of central importance. Another coincidence of taste is that Clio in *The Happy Zombie Sunrise Home*, also grows raspberries, though for her the more significant plant is rhubarb, which repels the zombies.

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[43] Margaret Atwood, *Ramsay*, p. 23.

Ramsay's desire for more, and for more of the right thing, is shown to be justified, 'the legitimate response to "not enough"', in contrast to Prunella's desire for more, 'more, and more than [one] can possibly use'.[44] Thus, these two stories create between them a basic framework for temperate desire, for accepting the need for food and for finding an appropriate source and quantity for the type of being that one is. Though these narratives look almost indifferent to the concerns of survival mapped out in the above section, it is not true to say that they are completely separated from them. The final mention of food in *Princess Prunella* is her shouted warning to the Prince: 'Don't plunge! That pond is polluted! Also it is full of ponderous pointy-toothed pike, which will probably eat you!'[45] Ultimately, orientating herself to thinking about the good of others has opened Prunella to perceiving more complicated and different food relationships in the context of survival. Like Samantha, she comes to see human beings as themselves vulnerable prey, food for others unless cooperation and beneficence (under the fairy tale term of Good Deeds) prevent it. This is very similar to *Rude Ramsay*, where Ramsay becomes the target of the radishes. The recognition of survival as a determining value thus survives in the alliterative works, and increasingly reasserts itself as the sequence continues.

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[44] Margaret Atwood, *Other*, p. 130.
[45] Margaret Atwood, *Prunella*, p. 25.

Illustration 14: Dorinda's exploitation

Bashful Bob and Doleful Dorinda puts less of an emphasis on food and food preparation, but it still plays an important role in the moral economy of the story. It reflects more of Atwood's concerns with the depiction of gender roles, and *Wandering Wenda and Widow Wallop's Wunderground Washery* reflects on postcolonial issues. This suggests that, in her children's fiction as much as in her adult fiction, Atwood sees the novel as 'morally controversial form' that inherently expresses 'a normative sense of life' and which must therefore be used to help its readers to 'discriminate more finely […] about human beings'.[46] Bob and Dorinda are in effect both orphaned by adult stupidity and lack of moral vision: Bob's mother, in a moment of mental abstraction, forgets him when she gets her hair dyed blonde, while Dorinda's parents are vanished in a mysterious disaster. Bob becomes a feral child, raised by dogs to steal to survive, with an intense fear of humans, while Dorinda is employed by her distant relatives (who, as was also true of Rillah's relatives, are rich) as an indentured servant. In the process, they force her to sleep beside a drain infested with

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[46] Martha Nussbaum, 'The Literary Imagination in Public Life', in *Renegotiating Ethics in Literature, Philosophy, and Theory*, ed. by Jane Adamson, Richard Freadman, and David Parker (Cambridge: Cambridge University Press, 1998), pp. 222–46 (p. 224); Charles Taylor, *Sources of the Self* (Cambridge, MA: Harvard University Press, 1992), p. 8.

diphtheria, and feed her 'defunct underdone ducks, dangerously deep-fried day-old hot dogs, stale-dated doughnuts and deplorable dairy products, deficient in vitamin D and also disgusting.'[47] Bob and Dorinda therefore shares the element of scarcity with Ramsay, since this ill-treatment motivates them to change. Ultimately, however, the story revolves around the dilemma of habitual identity — Bashful Bob becomes Brave Bob, and Doleful Dorinda becomes Daring Dorinda, just as the central nemesis of the book, the buffalo, is brought to see that it is in fact a buffalo, and not the begonia as which it had been mislabelled by a 'befuddled and bungling bureaucrat, who had botched its diploma'.[48] The buffalo is recognised as a fellow sentient being and granted agency, but thanks to the unusual pronoun, question marks hang over the bureaucrat. The resolution of the novel, however, is still understood in terms of food and commensality. When Bob and Dorinda's families move in together, their house possesses three spaces; bedrooms (for the previously homeless children), a backyard (a controlled wild-space in which the children and dogs can play without being threatened), and 'a dining room in which dishes of delicacies could be devoured'. This situation is described as 'blinding bliss', and 'delicious delight'. The accompanying illustration shows the family eating around a table, while Bob sneaks a bone out to the dogs. Community, instantiated and evidenced by the collective sharing of food, is dependent on Bob and Dorinda's virtue. Even the buffalo, once restored, is brought back into its natural state by being fed 'a bucketful of barley and a barrel of stale-dated doughnuts'.

Wandering Wenda and Widow Wallop's Wunderground Washery, Atwood's most recent children's fiction, is likewise interested in scarcity.[49] Wenda is also temporarily orphaned by the kidnapping of her parents, and must survive a life by herself, living on the

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[47] Margaret Atwood, *Bashful Bob and Doleful Dorinda*, 2nd edn (London: Bloomsbury, 2007), p. 10.
[48] Margaret Atwood, *Bashful*, p. 15.
[49] Margaret Atwood, *Wandering Wenda and Widow Wallop's Wunderground Washery*, 1st edn (Toronto, ON: McArthur and Co, 2011).

streets. Her main source of nourishment is the remains of discarded sausages, which she steals from the bins near a fast food outlet. It is not a great stretch to see this depiction as an extension of Atwood's critique in the *MaddAddam* trilogy, especially the character narratives of Oryx and Toby. Together with Dorinda, these four female characters are homeless orphans who are subsequently brutally trafficked and exploited, whether by family members, or by employers. Food is one way in which Atwood attempts to trace and reveal the relationship between ordinary life, as it is lived by the citizens of her dystopian near-future, and people trafficking — specifically the trafficking of women as economic slaves or victims of sexual abuse. In *Wenda*, the purveyor of 'withered-up wieners' does nothing to assist Wenda — in the illustrations, he remains cross-armed and wrapped in shadow. He refuses to give Wenda the wieners, so she is forced to scrounge them from the bin once they have been disposed of; if he catches Wenda and her woodchuck friend eating out of the bin, he threatens to 'whack them'. Toby, who is forced to work in a similar franchise producing equally dubious food, Secret Burger — where the secret is the make-up of the meat patties, somewhat akin to *Soylent Green* (1973), based on Harry Harrison's novel *Make Room! Make Room!* (1966) — is similarly trapped, with the addition of continuous sexual violence. When Jimmy remembers the first time he saw Oryx, as a child sex worker on a pornographic website, she and a group of other young girls were forced to perform sex acts involving licking whipped cream off a masked man. Similarly Oryx recounts a story in which, as a child and a 'working girl', she describes the genitalia of the cameraman who sexually abuses her, and does so in terms of food — he was 'a rope-haired clownish giant with a cock like a wrinkly old carrot'.[50] The representation of food as a common feature of sexual violence can be both understood in Freudian terms, but also as extending Atwood's critique of the excesses of society. Appetite, for Atwood, is most easily understood in its most basic form, and attempting to show how

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[50] Margaret Atwood, *Oryx*, p. 165.

excess has distorted our views of what is either normal or beneficial requires that the account be extended for other desires, though it is made continuous with the vice of gluttony by couching these desires in food terms. In each of these exploitation narratives (although Oryx refuses the adjective 'exploited', insisting that, even in the case of Jack the cameraman, she was trading her sexual favours for education), it is exclusively young women who are victimised. Atwood reflects the overwhelming statistical truth about people trafficking, which is that it is an issue that victimises vastly more women than men.[51] This is one way in which the focus on the evils of scientism in Atwood's novels have sidelined other very serious ethical issues that indicate Atwood's interest in a wider frame of critique.[52]

Wenda climaxes with the exploitative widow, who turns out to be a wizard, nearly falling prey to a pack of wolves. However, the exploited children agree to offer him a reprieve, as long as he frees them, their parents, and the pair of worn-down white Welsh ponies who have been equally exploited, and about whom Wanapitai has been increasingly vocal. Putting the ponies on an equal level with the children and their parents also suggests that Atwood's construction of temperance as a key component of *eudaimonia* as a liberatory ideal can also be brought to bear on animal rights issues. As she traces the history of the exploitation of these characters through the scarcity and quality of their rations, Atwood

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[51] In 2012 the ILO estimated that 'at any given moment in time, 20.9 million people (15.8 million women) were subjected to forced labour globally, including for commercial sexual exploitation', International Labour Office, *ILO Action Against Trafficking in Human Beings* (Geneva, 2008) <http://www.ilo.org/wcmsp5/groups/public/@ed_norm/@declaration/documents/publication/wcms_090356.pdf> [accessed 22 March 2018].

[52] It may seem that this means that the novel is an unlikely choice for adaptation into a cartoon series for children; unfortunately, at time of writing I have been unable to get access to watch it so I cannot offer much in the way of comment regarding how these aspects extend into the adaptation. However, on the production companies website there is an advert for the series: Breakthrough Entertainment, 'Wandering Wenda', *Breakthrough Entertainment*, 2017 <http://www.breakthroughentertainment.com/project/wanderingwenda/> [accessed 22 March 2018]. I note the primary antagonist in the advert is a neon-green "snappy hog", which must mean it is taken from the episode "A Haunted Holiday at the Howling Hog Hotel". It is not a stretch of the imagination to see this hog as a version of the genetically modified Pigoon, especially as Wenda's wordplay changes it from a "snappy hog" to a "happy hog", much as the negotiated treaty towards the end of MaddAddam changes the Pigoons from foes to friends.

implicitly constructs a norm of temperance and a pattern of appropriate desire. Where the early children's fiction shows the necessity of bringing the individual's hungers and desires into line with those of the natural world, the later children's fiction, and especially *Wenda*, shows how the patterns of desire which begin in the production and eating of food, and which are extended into other areas of life using food terms, can be a route for much more extended critique of social practices. The virtue of temperance is shown to be habitual in the sense that it is also pervasive; it has broader consequences than simply what is eaten. But likewise, it shows how powerful the representation of food is in Atwood's writing.

ChickieNobs and Disgust

In her children's fiction, Atwood uses both delicious and revolting food items to lay bare important social and environmental relationships, and to explicate the practice of temperance in accordance with these relationships. In doing so, she makes clear that disgust is a useful and a provocative lens for examining texts and theoretical issues — even if it is problematic as a moral, political, or legal sentiment. ChickieNobs appear primarily in *Oryx and Crake*, the novel which most focuses on excess, and fade in importance in the two later novels, where other concerns have become more important — primarily survival in a world without fast food joints. There is perhaps no more Atwoodian creation than the ChickieNob, combining satire, social commentary, and dire warning. Additionally, the ChickieNob is a bird and birds are a key component of Atwood's symbolic vocabulary. As a patron of several bird conservancy charities, Atwood has given readings and lectures at a large number of fund-raising and consciousness-raising events.[53] Moreover, Atwood's fiction and poetry have a

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[53] For instance in 2015, she toured the UK with her partner, Graeme Gibson, giving talks on the importance of conservation, and the role of birds in the human imagination.

long relationship with wild and domestic fowl, and it makes sense to bring the representations of ChickieNobs, as both a live animal and a foodstuff, into a relationship with the ancestors from whom they have been adapted. Several useful points will emerge from a comparison between Atwood's depiction of wild birds, and those that have been generated as a process of genetic engineering. Prominent examples, among many, include the heron hung up 'like a lynch victim' in *Surfacing*, and Elaine's consumption of 'lost flight' in the form of the headless turkey in *Cat's Eye*.[54]

Before the Flood, in the hyper-capitalist sections of the novels, ChickieNobs are a popular food product. Most normal people enjoy eating them, both in the fabulously wealthy corporate-run compounds, and in the slum-like cities called the Pleeblands — though, as with current fast food provision, their cheap prices links them in the popular imagination to lower economic status. Jimmy is embarrassed when Crake turns up to find his flat dirty and knee-deep in empty Nubbins containers.[55] On www.oryxandcrake.com, Atwood's website for the release of the novel, several "pop-up" advertisements were included. One of these was for the ChickieNob: 'great chicken taste — without all the cluck and muck!'

Illustration 15: ChickieNob Pop-up Advertisement, oryxandcrake.com

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[54] Margaret Atwood, *Surfacing* (London: Virago, 1997), p. 149; Margaret Atwood, *Cat's Eye* (London: Virago, 2009), p. 131.

[55] Margaret Atwood, *Oryx*, p. 337.

The only people to abstain are the ecologically-minded cult called the God's Gardeners, and the degree to which this group is supposed to be received as a parody is contested. Once society has collapsed, all the characters are equally pleased to discover caches of Buckets O'Nubbins, regardless of prior ethical commitments. As elsewhere in Atwood, survival is highly prized. Buckets O'Nubbins is the form in which ChickieNobs are marketed, and which resemble a prominent staple of the current fast food industry. In the context of their post-Flood scavenger, survival-orientated diet, the remainders of humanity long for the availability and simplicity of picking up a Bucket O'Nubbins from a wagonette — or, following Wenda's example, the possibility of stealing the leftovers from the bins nearby.
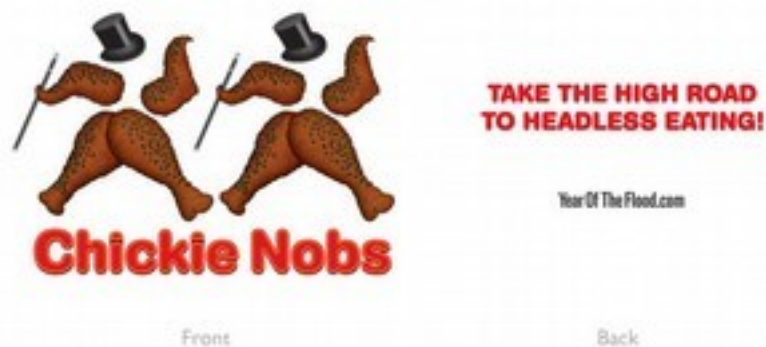
Illustration 16: The Year of the Flood ChickieNob T-shirt art

In 2009, with the publication of *The Year of the Flood*, Atwood began a book tour that raised money for Bird Life International, which was turned into a documentary. As part of this tour, t-shirts were sold which bore the logos and corporate slogans of fictional food companies from the novels. ChickieNobs, again, was one of the products given this glossy treatment. In this advertisement — slicker than the advertisement on oryxandcrake.com —

the ChickieNobs are shown as dancers, with top hat and cane, which suggests a level of sophistication, grace, and connection to the upper classes — even though they lack heads. The advert suggests vivacity and elegance, almost in an inversely proportional amount to that possessed by the actual ChickieNob, which is squat, sprawling and unmoving. The advertising slogan, "Take the high road to headless eating", further serves to emphasise the primary ethical claim of the ChickieNob manufacturer, Watson-Crick; eating ChickieNobs is moral, because they cannot feel pain. It also functions to make the ChickieNobs more appealing — the reality of the creatures, as described in the novel, is purposefully grotesque.

In representing the ChickieNob this fashion, Atwood revisits a poem from the 1974 collection, *You Are Happy*, "Song of the Hen's Head" — a companion to "Pig Song" that was examined in Chapter Two on transhumanism.[56] This poem narrates the final thoughts of a hen after its head has been cut off. The head sees the body blunder about, running at random through the grass, pursued by the rapist hands that want to despoil its corpse. The head remains serene, contemplating its final refusal to be complicit. The body is not sentient, not articulate, but nonetheless struggles horribly for survival against the grotesque forces that surround it, like real hens in battery cages who must be de-beaked to prevent damage to other birds in stressful, close conditions. The ChickieNob, a chicken headless by design, does not struggle. The ChickieNob's unnatural, indeed almost unheimlich, unflappable stillness is part of its disturbing brilliance. The ChickieNob logo thus maintains the composure of the hen's head while doing away with it as an integral component.

Atwood's continuing obsession with branding and advertising — she has written about a number of people involved in the advertising business, including Marian in *The Edible Woman* (1969), and created innumerable fictional adverts in poetry, prose, and in her work as a visual artist — has had some unforeseen consequences. Many other creators have begun to

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[56] Margaret Atwood, *You Are Happy* (Toronto, ON: Oxford University Press, 1974), pp. 41–42.

expand the brand identity of these fictional products. Atwood has reached out to her fan community by inventing technologies such as the LongPen, and the soon-to-be-released mobile and tablet app, Fanado, which are both designed to facilitate the meeting of the creator and the fan. The ChickieNob brand has been taken up by that community, and now exists beyond the fictional context of the novel, which is interesting because it demonstrates the very vivid power of the ChickieNob to express commonly experienced fears and dissatisfactions. For instance, in addition to the advertising shown above, a fan composed an advertising jingle for the ChickieNob:

No one comes closer to the taste of real chicken than ChickieNob packed meat

Nubbins.

When you get hungry for chicken-like meat,

Give your whole body the best tasty treat

of the one and only:

[…]

ChickieNobs, ChickieNobs,

Yum, yum, ChickieNobs,

ChickieNobs, ChickieNobs,

Yum! Nubbins![57]

The fascination with the ChickieNob suggests that the ChickieNob is a potent symbol that is readily understood and embraced as a critique of existing foodways, in part by reproducing them with satirical intent. The apparent market penetration of both the ChickieNob and the Secret Burger are near universal, mirroring the success of chain restaurants and franchises in the twentieth and early twenty-first centuries, such as

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[57] The Hodgepodge Lodge, *ChickieNobs Jingle*, 2010 <https://sites.google.com/site/frankfortlodge/home/day-sessions/day-session-4/chickie-nob>.

McDonalds, KFC, and in recent years Subway. Backed by aggressive advertising campaigns and massive corporate influence, these foods manifest as a synecdoche of the socio-economic structure that Atwood outlines in these novels — and, by implication, that which is in the wings in the socio-economic structures that we currently support. Ingersoll argues that the representation of fast food in the trilogy represents a breakdown of traditional commensality and foodways that involve all the steps of meal preparation in addition to their final consumption.[58] In what follows, I will take the ChickieNob quite seriously, as figurations of the distorting effects of global capitalism, but Adam Roberts, in his review of *Oryx and Crake* and *The Year of the Flood,* rightly points out that the ChickieNob is also a joke:

> McDonalds have Chicken Nuggets; Atwood's SecretBurgers sell 'Chickie Nobs'. The former may indeed be thoroughly yucky as a product, but the name is carefully chosen not to suggest so, because the semantic field of 'nugget' is golden, and snuggle-it, and safe, and appealing. No fast food joint would market 'nobs', because the semantic field is knobbly and penile and *nothing else*.[59]

Roberts argues that Atwood's choice of brand names is questionable, because they don't fit into 'Atwood's larger aesthetic, which is, to repeat myself, one of persistent and truthful attentiveness to the world'. Roberts puts his finger on a point where the genre protocols of satire and speculative fiction seem to pull in opposite directions; I would suggest instead that they sit in uneasy ambiguity, as the name "ChickieNob" both recalls the chicken nugget, and creates sufficient distance from it to draw attention to the obvious fictional quality of both terms; after all, both are terms for lumps of 'dead, stale bodies […] that had a little before

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[58] Earl G. Ingersoll, 'Survival in Margaret Atwood's Novel *Oryx and Crake*', *Extrapolation*, 45.2 (2004), 162–75 (p. 165).

[59] Adam Roberts, 'Margaret Atwood, *Oryx and Crake* and *Flood*', 2013, sec. 3 <http://sibilantfricative.blogspot.com/2013/03/margaret-atwood.html> [accessed 2 April 2018] ; Roberts mistakenly suggests that SecretBurgers sell ChickieNobs, when the operations are quite separate.

bellowed and cried, moved and lived'.[60] Another way to characterise it would be to describe it

as grotesque: provoking 'laughter as much as revulsion', or denoting 'the co-presence of the

laughable and that which is not compatible with laughter.'[61]

That is the ChickieNob as the prospective consumer knows it; apparently no different

from regular chicken nuggets in taste, with the added benefit of being morally

uncontroversial, in the sense that their production does not directly cause suffering. The novel

introduces it to us in a different way, however, starting with the early prototype production.

Crake takes Jimmy on a tour of the Watson-Crick facility. This is the section of the novel that

most resembles a utopian narrative, showcasing the various marvels and splendours of the

future, so that the focalising everyman character can be suitably wowed — textually

representing the absorbed and passionate interest that the reader is supposed to feel.[62] Atwood

describes such portions of utopian narratives as 'the tour of the sewage system', because they

are sometimes 'very boring or tedious', but also because they describe the functional aspects

of the society, the underlying social rationale.[63] It is in this spirit that Crake keeps repeating

'Wave of the future' — although Jimmy begins to find this a bit wearing.[64] Crake escorts

Jimmy through the genetic laboratories, and they pass numerous touted innovations, for

instance, rocks that absorb atmospheric moisture in damp periods and then release moisture

during drought, and wallpaper that can sense the mood of those inside the room it decorates.[65]

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[60] Plutarch, *Moralia, Volume XII: Concerning the Face Which Appears in the Orb of the Moon. On the Principle of Cold. Whether Fire or Water Is More Useful. Whether Land or Sea Animals Are Cleverer. Beasts Are Rational. On the Eating of Flesh.*, trans. by Harold Cherniss and W.C. Helmbold, Loeb Classical Library, 406 (Cambridge, MA: Harvard University Press, 1957), p. 540.

[61] Mark Fisher, *The Weird and The Eerie*, Kindle (London: Repeater Books, 2016), loc.355.

[62] Utopian novels which make use of this device include the father of the genre, Thomas More's *Utopia* (1516), and its grandfather, Plato's *Republic* (c.380 BCE), but also relatively modern works such as H.G. Wells's *The First Men In The Moon* (1901) and *Walden Two* (1948) by B.F. Skinner.

[63] Margaret Atwood, '*The Handmaid's Tale*: A Feminist Dystopia ?', in *Lire Margaret Atwood : The Handmaid's Tale*, ed. by Marta Dvorak, Interférences (Rennes: Presses universitaires de Rennes, 1999), pp. 17–30 (para. 13) <http://books.openedition.org/pur/30511> [accessed 6 April 2018].

[64] Margaret Atwood, *Oryx*, p. 237.

[65] Margaret Atwood, *Oryx*, pp. 235, 236.

Several of these are theoretically invaluable, such as the drought resistant rocks, but several are evidently intended as satirical jokes; the wallpaper cannot currently tell the difference between erotic love and murderous rage. Thus the wall-paper, which might seem to be a one-line joke does in fact bring out an important strand of Atwood's critique, which is that human beings also have a hard time distinguishing between erotic love and murderous rage. This is why practical wisdom is such a central feature of Aristotle's account of our ethical lives. Likewise, it reflects the insistence in Iris Murdoch's writings concerning the centrality of our talents for moral perception — Lawrence Blum expands on this when he writes that 'situational perception is not a unified capacity', and that '[d]ifferent parts of one's moral make-up are brought to bear in "seeing" different features of situations, or moral reality.'[66] People frequently fail to see what is morally relevant about situations, including those which involve the darkest, and the most powerful, of human emotions. This tour culminates in the first confrontation with the ChickieNob. 'What they were looking at was a large bulblike object that seemed to be covered with stippled whitish-yellow skin. Out of it came twenty thick fleshy tubes, and at the end of each tube another bulb was growing.'[67] Atwood thus uses a very neutral description to actually introduce the ChickieNob, and the description remains largely dispassionate; however, the responses from Jimmy, and the comments made by Crake and the developers, rapidly modify this picture in interesting ways.

The interaction of these responses helps to hone our own moral perceptions about what is morally relevant in this situation. Jimmy's immediate question — 'What the hell is it?' — is apposite, since the appellation "Wave of the future" hints at a dynamism that this blob-like creature definitely does not share.[68] As the scientist explains that it has no head and that they

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[66] Lawrence A. Blum, *Moral Perception and Particularity* (Cambridge: Cambridge University Press, 1994), p. 46.
[67] Margaret Atwood, *Oryx*, p. 237.
[68] Margaret Atwood, *Oryx*, p. 238.

just 'dump nutrients' in 'a mouth opening at the top', that it has '[n]o eyes or beak or anything, they don't need those', Jimmy begins to experience a visceral repugnance, which he states quite forcefully: 'This is horrible'. The description, inflected by Jimmy's thoughts, then characterises the ChickieNob as 'a nightmare', like a 'protein tuber', and Crake's attempts to make it seem more attractive by comparing it to an existing creature fails — 'Picture the sea-anemone body plan', 'It's sort of like a chicken hookworm'. Eating one would be like eating a 'large wart'. Jimmy's disgust at the physical nature of the creature itself is rapidly transferred to the food items that it produces. As mentioned in Chapter Two on transhumanism, the 'tuber of blood' and 'wart of flesh' epithets are used in "Pig Song" to describe how human beings taint their own food by feeding the pig with 'garbage'; the parallel situation with the ChickieNob is not subtle.

As readers, then, assuming we begin the trilogy from *Oryx and Crake*, our first view of the ChickieNob is of it as a disgusting, monstrous creature — though we see it in a bifurcated way, both as part of a tour of an impressive corporate facility which is pushing the boundaries on a wide variety of fronts and for which it is admirable, but also somewhat in the manner of the factory-farming whistle-blower's exposé such as those published by PETA as part of their Kentucky Fried Cruelty campaign.[69] A comparable literary example is Ruth Ozeki's *My Year of Meats* (1998) — which includes a broadly similar tour through meat production and its marketing, though that novel is primarily about hormone poisoning rather than violence against animals specifically — or Kang Han's *The Vegetarian* (2007, translated 2015), in which a dream of the violence conducted against animals is the starting point of a trajectory of questions about human violence in general.[70]

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[69]   *Kentucky Fried Cruelty*, http://www.kentuckyfriedcruelty.com/ [accessed 26/07/15].
[70]   Ruth Ozeki, *My Year of Meats* (Edinburgh: Canongate, 2013); Kang Han, *The Vegetarian*, trans. by Deborah Smith (London: Portabello Books, 2015).

There is an extensive overlap between the case as I have put it so far, and the case made by Leon Kass, the conservative bioethicist, in his article which serves as a clarion call for bioconservatives, "The Wisdom of Repugnance". According to Kass, our revulsion, even at the very idea, of altering human genetic material, is really a deep wisdom that we tap into in an intuitive way. He writes, by way of comparison, of 'the horror which is father-daughter incest (even with consent), or having sex with animals, or mutilating a corpse, or eating human flesh, or even just (just!) raping or murdering another human being'.[71] The uniformity of the experience of disgust at these examples suggests, in Kass's view, that there is a universal intuition founded in disgust which we can all accept without further argumentation.[72] 'Would anybody's failure to give full rational justification for his or her revulsion at these practices make that revulsion ethically suspect?' he asks. 'Not at all. On the contrary, we are suspicious of those who think that they can rationalize away our horror, say, by trying to explain the enormity of incest with arguments only about the genetic risks of inbreeding.' As I have portrayed the argument presented by the narrative of the *MaddAddam* trilogy so far, and by the depiction of the ChickieNob in particular, Atwood appears to be aligned with Kass and with the intuition he posits — genetic modification, especially of humans, is bad, and our disgust at even hypothetical genetically engineered creatures such as the ChickieNob are grounds for rejecting such genetic modification techniques as malign, corrosive of human dignity, and immoral at the very deepest level. Certainly the ChickieNob

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[71] Leon R. Kass, 'The Wisdom of Repugnance', *New Republic*, 216.22 (1997), para. 22 <http://www.catholiceducation.org/en/science/ethical-issues/the-wisdom-of-repugnance.html> [accessed 25 January 2015].

[72] Mary Midgley characterises "intuition" used in this sense in *Wisdom, Information and Wonder: What Is Knowledge For?* (London: Routledge, 1991), p. 55. 'An intuition [...] means any view about the subject-matter of one's study which is held by people without one's own training, is expressed in everyday language, and does not require any special methods to establish it.' In her article 'Biotechnology and Monstrosity: Why We Should Pay Attention to the "Yuk Factor"', *The Hastings Center Report*, 30.5 (2000), 7 <https://doi.org/10.2307/3527881> she does not regard emotions like disgust or "the yuk factor" as intuitions, but works to uncover the actual objections which lie underneath the emotions expressed.

is grotesque, and the strength of responses to it offers one explanation for why the *MaddAddam* trilogy has been less celebrated than *The Handmaid's Tale* - the sense of disgust that Atwood generates in the trilogy may be so powerful that it overwhelms its readers.

However, there is more to Atwood's position than this blank horror. Jimmy begins by being deeply horrified. But over the course of the narrative his views shift in a telling way. He begins to eat ChickieNobs, by pushing the idea of the origins of otherwise apparently ordinary chicken nuggets from his mind. He becomes so inured to their presence, that soon he brings a Bucket O' Nubbins back to share with a group of friends — this has disastrous consequences, as he has unthinkingly bought them for a group of vegan artists. The other guests find the Nubbins disgusting and immoral. Jimmy's horror has decreased by this point to such an extent that he fails to register that the ChickieNob may still have a horrifying effect on others. Later, in a romantic encounter with Oryx, licking the tasty grease from the Nubbins off her fingers is a highly charged erotic act: 'Unguent, unctuous, sumptuous, voluptuous, salacious, lubricious, delicious, went the inside of Jimmy's head.'[73] Eventually, after the Flood, even the ostensibly vegetarian God's Gardeners eat the ChickieNobs they uncover. This plurality of responses to disgust, and its evident gradual erosion, are telling reasons for discounting the Kass argument as it applies to Atwood's fiction.

In the Aristotelian account of emotion, disgust is parallel to anger, contempt, and fear. Like those emotions, it may rise from an evolutionary wellspring, and because it has fulfilled a useful primordial role it should not be wholly discounted as a useful emotion. However, we should be sceptical of the powerful influence of disgust because it is less open to rational critique than those related emotions. Nussbaum explicates this claim, arguing that 'shame and disgust are different from anger and fear, in the sense that they are especially likely to be

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[73] Margaret Atwood, *Oryx*, p. 370.

normatively distorted […] because of their specific internal structure.'[74] She provides some examples that demonstrate this. When I am angry, I am angry about some perceived infringement — if you demonstrate that the infringement is not real, I typically cease to be angry.[75] In the case of disgust, however, rational beliefs play less of a role, and this, as Nussbaum reports, has been documented in a number of studies. People are reluctant to eat caramel sweets in the shape of dog faeces, even though they know that the contents of the sweet have had nothing to do with dogs at any stage of the confection making process.[76] The perceived contamination of the sweet is hard to dislodge with reason alone, and it is this that makes disgust unhelpful in legal and moral situations — its resistance to rational critique means that Kass's 'wisdom of repugnance' has been used to criminalise homosexuality, and to bolster racist, misogynist, and anti-Semitic viewpoints, amongst others.[77] On Nussbaum's picture, disgust is an emotion that we should intrinsically distrust, pending proper deep examination of any reasons, if there are any reasons involved, for the disgust to be triggered. It can be summed up as revolving 'around a wish to be a type of being that one is not, namely nonanimal and immortal'.[78] In responding to this wish, we 'serve the ambition of making ourselves nonhuman, and this ambition, however ubiquitous, is problematic and irrational, involving self-deception and vain aspiration.' Nussbaum's account of disgust clearly maps onto Atwood's representation of food in this trilogy (and at least to some extent in her other writing), and by looking at food from the perspective of disgust, we can gain a deeper insight

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[74] Martha Nussbaum, *Hiding from Humanity: Disgust, Shame, and the Law* (Princeton, NJ: Princeton University Press, 2004), p. 13. Nussbaum reportedly revisits the question of emotional distortion in her forthcoming *The Monarchy of Fear*.

[75] Nussbaum, *Hiding*, pp. 99–101.

[76] Nussbaum, *Hiding*, pp. 88–91; Nussbaum draws her account from the experimental work of Paul Rozin -- for more on this, see Paul Rozin, Jonathan Haidt, and Clark McCauley, 'Disgust', in *The Handbook of Emotions*, ed. by Lisa Feldman Barrett, Michael Lewis, and Jeannette M. Haviland-Jones, Fourth edition, Kindle (New York, NY: Guilford Press, 2016).

[77] Nussbaum, *Hiding*, pp. 72–73.

[78] Nussbaum, *Hiding*, p. 102.

into Atwood's concerns about the misuse of biomedical enhancement for transhumanist ends.[79]

Atwood dramatises, albeit briefly, the opposing ethical argument at play in the creation of the ChickieNob. As the scientist showing off the ChickieNob points out, ChickieNob farming is far more efficient than farming chickens, in addition to which it is also free from obvious suffering. Many of the established arguments for vegetarianism and veganism depend upon the intuition that we should not cause suffering to satisfy our own needs provided those needs can be met without causing suffering.[80] The ChickieNob feels no pain, and, in addition, reduces the global footprint of the meat industry.[81] In *The Year of the Flood* Ren compares them to plants: 'ChickieNobs were really vegetables because they grew on stems and didn't have faces. So I ate half of them.'[82] ChickieNobs are also not included in the God's Gardener's festival celebrating the birds, St Rachel [Carson] and All Birds, which is also the name of the central chapter of *The Year of the Flood*, suggesting that ChickieNobs have moved outside the avian realm. When, during the early days of the Flood, some God's Gardeners break into a ChickieNob factory in the manner of radical animal activists to liberate the ChickieNobs, the newscasters covering the story laugh, as the activists fling the helpless blobs out from their laboratory into the open air: '*Brad, this is hilarious, those*

[79] For more on disgust at the self, see Julia Kristeva on abjection in *Powers of Horror: An Essay in Abjection*, trans. by Leon S. Roudiez (New York, NY: Columbia University Press, 1982).

[80] A.C. Grayling, *Ideas That Matter* (London: Phoenix, 2010), p. 57 describes this as the 'strongest of all the moral arguments against creating and then killing sentient creatures in order to eat them'; Peter Singer, *Animal Liberation* (London: Pimlico, 1995) represents the most important and influential explication of this view.

[81] See the discussion in Traci Warkentin, 'Dis/Integrating Animals: Ethical Dimensions of the Genetic Engineering of Animals for Human Consumption', *AI & SOCIETY*, 20.1 (2006), 82–102 <https://doi.org/10.1007/s00146-005-0009-2> of the arguments in Bernard E. Rollin, The Frankenstein Syndrome: Ethical and Social Issues in the Genetic Engineering of Animals, Cambridge Studies in Philosophy and Public Policy (Cambridge: CUP, 1995) <http://dx.doi.org/10.1017/CBO9781139172806> regarding the move to "decerebrate food animals"; Rollin's argument is also considered in regard to the ChickieNob in Samantha Noll, 'Broiler Chickens and a Critique of the Epistemic Foundations of Animal Modification', *Journal of Agricultural and Environmental Ethics*, 26.1 (2013), 273–80 <https://doi.org/10.1007/s10806-011-9362-y>.

[82] Margaret Atwood, *The Year of the Flood* (London: Virago, 2010), p. 154.

ChickieNob things can't even walk! (Laughter.) Now, back to the studio.'[83] Caring for them

as if they were chickens is clearly ridiculous, since they are no longer the same kind of being

as chickens — and the ChickieNobs have been liberated only in the metaphorical sense of the

final liberation from existence. Taken as they are, the ChickieNob lives the best kind of life

that is possible for it, since it cannot express the vivacity and personality that its ancestors

shared with the chicken in the "Song of the Hen's Head"; it only grows. As an appropriate

phrase from "Mourning for Cats" has it, 'Hookworms rate no wailing.'[84]

However, these positive intrusions do not add up to a campaign for the rapid production

of ChickieNobs in the real world. Indeed, the genetic changes made to the ChickieNob make

us question further the aspiration to escape our own limitations — the sufferings that we

currently undergo such as ageing — by altering what we are. Is the ChickieNob, which is free

from suffering, really better off than its ancestors? By analogy, the same move is made by the

text against the Crakers; despite their beautiful and unearthly singing, they are in many ways

radically truncated versions of humans, specifically in their cognitive development. The text

suggests that growing ChickieNob-like creatures will likely be necessary to reduce damage to

the environment, but also that it is morally repugnant; in much the same way, Crake's

replacements for the *H. sapiens* may be necessary for survival, but they do not represent a

goal to be achieved — rather, they represent a failure. Perhaps what makes the ChickieNob

so revolting is that they have been transformed from the archetypal symbol of human

freedom, the bird flitting through the sky, into something rooted, entirely helpless. Atwood's

oeuvre as a whole depicts birds as vital symbols in the human imagination, and they

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[83] Margaret Atwood, *Oryx*, p. 397. It is important to note that contemporary broiler chickens would have the same problem, as they have been so over-bred that they grow at such a speed that their legs cannot support their own bodyweight; see Anthony Browne and Chloe Diski, 'Ten Weeks to Live', *The Guardian*, 10 March 2002, section Life and style <https://www.theguardian.com/lifeandstyle/2002/mar/10/foodanddrink.features1> [accessed 21 June 2017].

[84] Margaret Atwood, *The Door* (London: Virago, 2009), p. 14.

frequently are the means of revealing the extent of damage or entrapment. If we feel moderate discomfort and concern at keeping someone "cooped up" by "clipping their wings", then the idea of actually removing, not just their wings, but even their desire to fly, must surely convey Atwood's strong feelings about the validity of the ChickieNob as a real-world possibility.

Throughout the trilogy, the acquisitiveness of human beings is foregrounded, building on and adapting patterns that have been a central component if Atwood's writing from the beginning. An Atwoodian trope at least as old as the creeping "Americanisation" in *Surfacing*, the continuous grasping after more food, more sex, longer life, and more and different experiences is driven to new heights in the hyper-capitalist world prior to the Flood. This acquisitiveness is directly linked to a desire to escape from human physical, social, and perhaps psychological, limitations. This leads, increasingly, to a reduction in the value of experiences; indiscriminately more means a drop in quality. The trend of which Atwood is critical is not specifically linked to the nature of the technology used to create the ChickieNob, which is why revulsion at its nature is not morally dependable. It is the motivation behind its creation, which is a striving to escape from the animality of the human being, rather than the experimental animal itself, which is at fault. The word chicken is used in the trilogy with the implication that it is the lowest quality of meat, so much so that it is not really meat at all — whether this is due to the erosion of the boundaries from the genetic interventions, or whether this is in part due to existing hierarchies in Western culture is not clear. The lowest socio-economic workers eat 'chicken or something nextdoor to it'.[85] After all, if everything tastes like chicken, then nothing tastes like chicken. Various characters use 'chickenshit' as an obscenity with the implication that the thing in question is trivial; for

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[85] Margaret Atwood, *MaddAddam* (London: Virago, 2014), p. 76.

example 'more chickenshit boy-soldier wars in distant countries'.[86] The use of 'chicken' in this way in the trilogy is suggestive of the dilution of the very concept of chicken, and indicates the perceived disconnect between food production and the food actually eaten by the characters. The character who perceives this connection most clearly, and who exploits it to fulfil his ends, is Crake. Zeb too is shown to be fully cognizant of the way in which food-production interacts with the whole societal system, but, like Crake, his solution is extreme: eco-sabotage.

As mentioned in Chapter Two, Hengen has written of Atwood's 'acceptance of the whole range of our physical, emotional, spiritual, and intellectual state' as a reason to think that denying or splicing out 'any of that state is to amputate the self'. Nussbaum's account highlights the fact that disgust attempts to keep us immaculately pure in a way that is simply unsustainable for human beings — it forces us to try to escape the realities of our own bodies and trains us to be horrified by our own bodily circumstances. It is the folly of this drive to escape the animality of human nature that lies at the centre of Atwood's project in the *MaddAddam* trilogy. The *MaddAddam* trilogy resists the large-scale transformation of life in a transhumanist manner. That is why the neohuman Crakers, far from being glorious progressive super-people, are specifically made up of a hodgepodge of traits that return them to animality; they mate seasonally, they can only eat leaves, they do not need to wear clothes. Crake's grand plan is to return humanity to a state of instinctive animality. Rather than being forced to recognise our animality, it would be a positive step to accept the limitations inherent in the types of being that we already are, and use temperance to solve political and social problems, rather than biotechnology.

One further piece of evidence that the critique that Atwood develops through the representation of the ChickieNob is aimed at a social disgust for our own bodies is the

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[86] Margaret Atwood, *Oryx*, p. 298.

presentation of the ChickieNob as female, and further gendered imagery used in conjunction with it, recalling Carol Adams' feminist-vegetarian critical theory.[87] Atwood takes a part in the feminist critique concerning meat-eating, and identifies the eating of chicken, whether real or genetically modified, as part of that culture. When the ChickieNob is introduced, it appears in the order: chicken — parts — breasts. Jimmy reflects on whether it would be easy to distinguish fake from real, specifically drawing the parallel between breast enlargements and chicken breasts. Here Atwood is evoking the rhetoric within science that led to the lamentable naming of Dolly the sheep after Dolly Parton, because the sheep was cloned using mammary tissue.[88] Atwood, Adams, and Nussbaum connect disgust to misogyny, and we can see that the acquisitive drives in the trilogy are constructed in such a way as to denigrate women. In a further adaptation of the word 'chicken', Atwood also depicts characters using 'chicken' as a metaphor for various practices within the sex trade, especially for child-sex trafficking: 'Kids like that could get snatched for the chicken-sex trade just walking along the street, even if they were with adults'.[89] When Oryx, who was herself trafficked as a child sex worker, recounts the events of that time, she remembers with fondness that they were given high quality food — specifically chicken — when she began work.[90]

Disgust is relevant to Atwood's writing in the context of the claim that the novel is an intrinsically ethical form because she presents things which are disgusting in order to provoke a response from us concerning some of the basic matters of morality, and simultaneously undercuts the potential of disgust to move us to do the right thing either ethically or politically. The ambiguity of her position on disgust has significant consequences for the

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[87] Carol J. Adams, *The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory*, 20th anniversary edition (London: Bloomsbury, 2014).
[88] For more on Dolly, see Sarah Franklin, *Dolly Mixtures: The Remaking of Genealogy*, Kindle (Durham, NC: Duke University Press, 2007).
[89] Margaret Atwood, *MaddAddam*, p. 398; see also Margaret Atwood, *Year*, p. 84.
[90] Margaret Atwood, *Oryx*, p. 160.

interpretation of the moral emphasis of her fiction, and so it is important that discussion of the role of disgust be included in consideration of the ustopian trilogy. Insofar as the force and indeed appeal of disgust in her writing goes unexplained, the dystopian aspect of the books will fail to be taken as seriously as it ought to be. The *MaddAddam* trilogy suggests that an acceptance of our own animality is central to our future survival as a species, and the depiction of the ChickieNob as a food item is one of the most significant ways of conveying that message to its readers.

Pigoons, Cannibalism, and Extreme Foodways

In the previous section, the ChickieNob was presented as a critique of existing foodways in part by reproducing our current foodways with satirical intent. However, Atwood's dystopian trilogy does not stop with this satiric depiction. In her children's fiction, and especially in the recent turn towards representing child exploitation, there is already the sense that, as some animals are the prey of other animals, so too are human beings vulnerable to a change in status from predator to prey. Atwood represents human beings as food in two related ways in the trilogy. Firstly, they are the prey for new genetically modified animals, showing that unmodified human beings are not biologically fit to live in the world they have engineered for themselves. Animals that have been created for a purpose — such as the Wolvog — have ceased to recognise the distinctions between the client and the invader. Others, like the Pigoon, have ceased to be passive crops for human beings, and have reverted to a pre-technological bestiality. In doing so, animals in both these categories now regard human beings as fair game, and invert the pre-Flood technological-agricultural economy. Secondly,

humans are the prey of other human beings.[91] Beginning in the Marxist metaphor of capitalist

vampirism, human beings have moved from exploiting those further down the economic

ladder, into regarding other humans as legitimate sources of food.[92] The figures who come to

represent the most extreme desires of the pre-Flood society are the Painballers. They are

amongst the most desiring of all the society's members, so much so that they commit terrible

crimes to fulfil those desires, including rape and murder. They are punished by enforced

prison terms in the Painball arena, where they must unleash their darkest and most violent

traits to survive — and this provides televised entertainment for the rest of society. Thus

Atwood anticipates, to some extent, the outpouring of dystopian young adult fiction

(especially in the form of the trilogy) that has been produced in the first decade and a half of

the twenty first century and which focuses on these kinds of gladiatorial spectacles.[93] When

Painballers are released, they turn on other human beings, for consumption in all senses of

the word. Their actions place them as the major human antagonists in *The Year of the Flood*

and *MaddAddam*.

Beyond this, killing and eating the Pigoons has connotations of cannibalism, as they

have been modified to include human genetic material, including significant portions of brain

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[91] There have been extensive discussions of cannibalism, both actual and metaphorical, in Atwood scholarship – see Marlene Goldman, 'Margaret Atwood's *Wilderness Tips*: Apocalyptic Cannibal Fiction', in *Eating Their Words: Cannibalism and the Boundaries of Cultural Identity*, ed. by Kristen Guest (Albany, NY: State University of New York Press, 2001), pp. 167–85; Maria Christou, 'A Politics of Auto-Cannibalism: Margaret Atwood's *The Handmaid's Tale*', *Literature and Theology*, 30.4 (2016), 410–25 <https://doi.org/10.1093/litthe/frv030>; Amelia Defalco, 'Haunting Physicality: Corpses, Cannibalism, and Carnality in Margaret Atwood's *Alias Grace*', *University of Toronto Quarterly*, 75.2 (2006), 771–83 <https://doi.org/10.1353/utq.2006.0247>; Emma Parker, 'You Are What You Eat: The Politics of Eating in the Novels of Margaret Atwood', *Twentieth Century Literature*, 41.3 (1995), 349–68 <https://doi.org/10.2307/441857>; etc.

[92] Karl Marx, *Capital*, ed. by David McLellan (Oxford: OUP, 2008), p. 149. For further discussion of Marx's use of the vampiric metaphor, see Mark Neocleous, 'The Political Economy of the Dead: Marx's Vampires', *History of Political Thought*, 24.4 (2003), 668–84. For further elucidation of this metaphor in popular culture, see Rob Latham, *Consuming Youth: Vampires, Cyborgs, and the Culture of Consumption* (Chicago, IL: University of Chicago Press, 2002).

[93] As for instance in Suzanne Collins' *The Hunger Games* trilogy, and James Dashner's *The Maze Runner* series (2009-2016).

tissue.[94] Both of these depictions of humans as self-predators can be comprehended by means of the wendigo, a figure of Canadian folklore who manifests as a dishevelled, gaunt, and pale wreck of a human being, ravaged by starvation, who gives in to cannibalistic predation.[95] By looking at these extreme examples of eating, we can see the consequences of the most grotesque excesses of appetite, and how we are ourselves responsible for going wendigo. Atwood ends *Strange Things* by turning to an admittedly 'admonitory or moralistic' conclusion, when she suggests to her audience that the Great White North is being destroyed, and will hence cease to be the beating heart of Canadian literary identity.[96] More than this, our destruction of the environment can be understood as our entire culture going wendigo, as the blood of the innocents injured by the unmitigated desire driving climate change 'will seep into the water | and you will drink it every day', connecting our failure to act on environmental and social justice issues to the resultant wasteland and poisoned water.[97]

The threat that stalks Toby at the start of *The Year of the Flood*, safe in her Ararat the ANooYoo Spa compound, are the neohuman Pigoons. They start by testing the fence around her garden, which contains the vast majority of her survival rations. Despite her Vegivows she shoots a boar, and two sows make it safely out of her range. This forces a conundrum on her, as she knows that pigs 'are smart, they'll keep her in mind, they won't forgive her.'[98] Her fears are justified. A few days later, she looks out over her garden, and the Pigoons have

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[94] Warkentin, p. 89, quotes Richard Ryder in "Pigs *Will* Fly", where he argues that the practice of modifying pigs with human growth hormone genes has already precipitated this process: "The aim was to produce bigger and juicer pork chops. But wait a minute. This would mean eating human genetic material! It might only be a minute proportion of the chop, but all the same, would it not be a partial cannibalism?"

[95] Margaret Atwood, *Strange Things: The Malevolent North in Canadian Literature* (London: Virago, 2004), pp. 81–82; discussed in detail in DiMarco, 'Wendigo'.

[96] Margaret Atwood, *Strange*, p. 139.

[97] 'The Hurt Child', in Margaret Atwood, *Door*, p. 80. In a parallel section, when Jimmy discovers Macbeth, one of the words he focuses on particularly is 'incarnedine', which occurs when Macbeth tries to wash his hands of the blood of Duncan's murder, only to discover that his blood will instead stain the oceans, 'Making the green one red.'

[98] Margaret Atwood, *Year*, p. 22.

broken through the fencing: 'Surely it was less like a feeding frenzy than a deliberate act of revenge.' More disturbing is that they've 'been watching her: it's as if they want to witness her dismay.'[99] With her supplies destroyed, Toby faces death. Her only choice, facing dwindling resources, is to forage in the meadow. But leaving the compound makes her a target for the Pigoons:

> Is that what the pigs want her to do? Go outside her defensive walls, into the open, so they can jump her, knock her down, then rip her open? Have a pig-style outdoor picnic. A pig-out. […] They have a festive air. Are they snorting in derision? Certainly there's some grunting going on, and some juvenile squealing, as there used to be when the topless bars in the Sewage Lagoon closed at night.[100]

Jimmy faces the same threat as he breaks back into the Paradice Dome. A group of Pigoons herds him into a trap, as two groups pen him in a single building, and begin cooperatively breaking down the door:

> They've nosed the door open, they're in the first room now, twenty or thirty of them, boars and sows but the boars foremost, crowding in, grunting eagerly, snuffling at his footprints. Now one of them spots him through the window. More grunting: now they're all looking up at him. What they see is his head, attached to a what they know is a delicious meat pie just waiting to be opened up.[101]

These encounters demonstrate the extent to which the new situation is a reversal of the old. In both cases, the human being has become prey, and specifically, prey to a predator that has an elaborate plan to catch them, involving duplicity and teamwork. This is not an instinctual hunt, driven by age old evolutionary mechanics, which is how predators are frequently portrayed — such as in the poetry of Ted Hughes (pike are 'killers from the egg: the

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[99] Margaret Atwood, *Year*, p. 383.
[100] Margaret Atwood, *Year*, p. 314 ; Atwood draws on the cultural image of the pig as immature, and simultaneously as sexually threatening, in this passage.
[101] Margaret Atwood, *Oryx*, p. 314.

malevolent aged grin'), and the nature writing of figures such as J.A. Baker ('No flesh-eating

creature is more efficient, or more merciful, than the peregrine. It is not deliberately merciful;

it simply does what it was designed to do.') and T.H. White ('[The goshawk] was born to fly,

sloping sideways, free among the verdure of that Teutonic upland, to murder with his fierce

feet and to consume with that Persian beak').[102] Instead, the Pigoons hunt humans in the

manner of humans hunting other animals, forcing them into blind gullies, luring them out to

protect their food supply. Human beings are now, thanks to their own efforts, merely one

competing species that is capable of such deliberate action, and though they have the use of

two hands — Jimmy thinks that if the Pigoons had 'had fingers, they'd have ruled the world'

— the Pigoons have many other advantages to living in the wild that human beings lack.[103]

Of course, Atwood doesn't go as far as some in depicting human beings as prey. In

Under the Skin (2000) by Michel Faber, animals, which the text implies are canines of an

extraterrestrial kind, capture and farm human beings, specifically men, castrating them,

feeding them on diets that rapidly fatten them for harvesting — which is a true inversion of

the farming motif, defamiliarising the practices of industrial agriculture and unleashing them

on human beings. Atwood does not stress this point, though both Toby and Snowman fear

that the Pigoons are primarily interested in their insides — in the very organs the Pigoons

were designed to have removed for transplant. Instead, she puts the Pigoon and the human on

a newly levelled field, and exposes them to the ruthless logic of Darwinism. Later, this is

made explicit in *The Year of the Flood* when Toby's compound is assaulted by three

Painballers in a similar fashion to the earlier Pigoon assault; Toby shoots one of them, and for

a second time fails to kill her assailant's two companions — she reflects, 'They'll be

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[102] Ted Hughes, 'Pike' in *Collected Poems* (London: Faber and Faber, 2003), p. 84; J.A. Baker, *The Complete Works*, ed. by John Fanshawe (London: Collins, 2011), p. 39; T.H. White, *The Goshawk* (London: Weidenfeld and Nicolson, 2015), p. 12.
[103] Margaret Atwood, *Oryx*, p. 314.

vindictive, like the pigs. But they won't come soon, because they know I have a rifle. They'll have to plan.'[104] After the flood, then, the human advantage in the evolutionary race has been matched. Pigoons and other human beings are shown to be equivalent threats to Toby's survival.

Atwood's choice of pigs as the primary predators of her human protagonists is an interesting one. In many ways, the wolvog would been the more obvious choice for this role, since they are designed by the CorpSeCorps to hunt and kill people; in addition, it would not be unlikely that the dark character of such a transformation, taking the most loyal of humanity's 'companion species' and turning them into their most ferocious predators, would appeal to Atwood's sensibility in this trilogy.[105] What the Pigoon has over the wolvog, however, is their similarity to human beings. Pigs are already one of the animals that is most like human beings as described in Chapter 2, which, matched with their wide distribution and use in food production, explains why they are vested with such strong symbolic presence across the globe — from Orwell's *Animal Farm* to the Kaulong peoples of New Britain, who 'regard anyone who refuses to eat pork as inhuman'.[106] The changes made to the pig to transform it into the Pigoon only make it a more appropriate mirror for human nature. Watson, in his study on the cultural representation of pigs in a global context, writes that

> [pigs and humans] are both products of an omnivorous upbringing, curious, dexterous and willing to explore new things. And, as a direct result of such open-minded, open-mouthed enthusiasm, we are what we have eaten. We are the consequences of parallel adaptation, genetically modified by long association with a wide range of plant chemistries that have shaped our bodies and our minds.[107]

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[104] Margaret Atwood, *Year*, p. 421.
[105] I take this phrase from Haraway's *The Companion Species Manifesto: Dogs, People, and Significant Otherness* (Chicago, IL: Prickly Paradigm Press, 2003).
[106] Lyall Watson, *The Whole Hog: Exploring the Extraordinary Potential of Pigs* (London: Profile, 2004), p. 215.
[107] Watson, p. 248.

Our parallel upbringing and situation — including our diet - is not the only feature of our biology that makes pigs comparable to human beings: 'Omnivores never stop investigating and are always on the lookout for anything in the environment that can be bent to their advantage. They are, in a simple and useful word, "neophilic" - fond of that which is new.'[108] If a significant portion of Atwood's project is aimed at curbing our excessive tendencies, then the choice of pig as our direct companion species is an interesting one, since they have, in the Western imagination, frequently been denigrated as particularly excessive. This is in part due to the prohibition on eating the flesh of swine in both the Torah and the Koran, and the way in which Christian tradition adopted the pig as the archetypal representation of gluttony. Marvin Harris explains this prohibition in terms of the pig's similarity to human beings. Though they have 'the greatest potential for swiftly and efficiently changing plants into flesh', religions that originated in the Middle East forbade the eating of them as abhorrent.[109] He cites Maimonides' explanation of why this should be so, which focuses on their uncleanliness. However, Harris argues that a more plausible line of reasoning is that, while other animals who are not proscribed may be equally unclean, they do not fill the same niche as human beings, since pigs require the same sorts of foods as humans to thrive, namely 'wheat, maize, potatoes, soybeans' rather than 'grass, stubble, leaves'.[110] What was threatening about pigs, in the Middle Eastern context, was that they eat the same foods as their masters, and in times of scarcity this means making the choice between keeping the food animals and keeping the family alive.

Going beyond this regional context, it is clear that throughout the pig's history, it has been linked in both representation and in fact, to human beings. In their study of the

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[108] Watson, p. 32.
[109] Marvin Harris, 'The Abominable Pig', in *Food and Culture: A Reader*, ed. by Carole Counihan and Penny Van Esterik (London: Routledge, 1997), p. 67.
[110] Marvin Harris, p. 70.

carnivalesque, Stallybrass and White add another aspect to the similarities between pigs and Europeans:

> Not only did the pink pigmentation and apparent nakedness of the pig disturbingly resemble the flesh of European babies (thereby transgressing the man-animal opposition), but pigs were usually kept in peculiarly close proximity to the house and fed from the household's leftovers. In other words, pigs were almost, but not quite, members of the household, and the almost, but not quite, followed the dietary regimes of humans.[111]

Historicised in this way, it is easy to see why Atwood would choose Pigoons as the primary predators of human beings. They represent direct competition for the same resources, rather than the strictly predator-prey relationship. It is an important part of Atwood's critique that the pig, which has been reviled and abjected in a number of western countries for centuries, should become our equal, since this expresses how far humanity has gone in its excess — it has lived down to its own projected abjection. One particularly significant element in the depiction of the Pigoon is that Atwood focuses on the 'neocortex tissue' that is implanted into the Pigoons and which is repeatedly referenced across the trilogy.[112] Presumably, within the logic of the pre-Flood society, this experiment is intended to investigate the possibility of using Pigoon-grown neocortex tissue for transplant, but the practical effect is to make the Pigoons the intellectual equals of human beings. This is ostensibly the grounds for considering them to be 'brainy and omnivorous' animals. The introduction and insistence upon neocortex tissue, which, in broad strokes, is the part of the brain connected with spatial reasoning, conscious thought and language, may be read as a heightening of the similarity already outlined. It is another way of highlighting Crake's position, when he describes 'human ingenuity': 'Monkey paws, monkey curiosity, the desire to take apart, turn inside out,

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[111] Peter Stallybrass and Allon White, *The Politics and Poetics of Transgression* (Ithaca, NY: Cornell University Press, 1992), p. 47.

[112] Margaret Atwood, *Oryx*, p. 276; Margaret Atwood, *Year*, p. 296; Margaret Atwood, *MaddAddam*, p. 28.

smell, fondle, measure, improve, trash, discard — all hooked up to monkey brains, an advanced model of monkey brains but monkey brains all the same.'[113] Atwood thus simultaneously draws on both of these cultural historical representations of pigs to construct the Pigoons as possessing our best and worst traits, being both smart, curious, and social, while still being threateningly destructive and excessive in behaviour. It is 'precisely the ambivalence of the pig, at the intersection of a number of important cultural and symbolic thresholds, which had traditionally made it a useful animal to think with'; that it is also an animal which have traditionally exploited for food further contributes to the importance of its place in the *MaddAddam* trilogy.[114]

As I have argued in this chapter, the trilogy places a strong emphasis on the basic necessities of survival, but particularly of food. Atwood presents temperance as a virtue that mediates between individuals and their environments in various ways. Excessive desire is shown to have a damaging effect that cuts off human beings from *eudaimonia*. In Chapter 2 I argued that Atwood refutes the transhumanist attempt to escape from human animality by using biotechnology; in this chapter, I shown how that attempt is rooted in a failure to grasp the kind of animals that humans beings are. Temperance involves an acceptance of the biological realities of human beings, and it is this human nature that sets limits on the excess and deficiency of desire. In tracing the foodways of the *MaddAddam* trilogy, we can see that a wide variety of practices feed into the greed that characterises the broader society of the twenty-first century. The trilogy depicts the culmination of this greed as requiring a sweepingly radical solution.

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[113] Margaret Atwood, *Oryx*, p. 114.
[114] Stallybrass and White, pp. 44–45.

4 | Mad Science

> Presented with a clutch of white-coated men wielding test tubes, we viewers
> knew at once — being children of our times — that at least one of them would
> prove to be a cunning megalomaniac bent on taking over the world, all the
> while subjecting blondes to horrific experiments from which only the male
> lead could rescue them, though not before the mad scientist had revealed his
> true nature by gibbering and raving.[1]

In her role as essayist and reviewer, Atwood has critiqued transhumanist aspirations for their

excessive, hubristic desires; in her representation of food, we see one way in which her

characters are forced to consider deficiencies and excesses of temperance. In this chapter, I

examine the results of failure to exercise temperance. As I outlined in the introduction, virtue

ethics understands character as the primary site of ethical deliberation:

> What makes a person good or bad, praiseworthy or blameworthy, is neither the
> simple possession of faculties nor the simple occurrence of passions. It is
> rather a state of character that is expressed both in choice (*prohairesis*) and in
> conduct (*praxis*).[2]

In virtue ethics this is inextricably connected to the idea of flourishing: 'agents act well if

their conduct enhances good or virtuous character and contributes to a flourishing life, as

opposed to a languishing or floundering one.'[3] In this chapter, I want to look at one central

characterisation in the *MaddAddam* trilogy, made repeatedly by a wide variety of critics, both

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[1] Margaret Atwood, *In Other Worlds: SF and the Human Imagination* (London: Virago, 2011), p. 194.
[2] Aristotle, 'Eudemian Ethics', in *Athenian Constitution, Eudemian Ethics, Virtues and Vices*, trans. by Harris Rackham, Loeb Classical Library, 285, 23 vols (Cambridge, MA: Harvard University Press, 2004), XX, p. xviii.
[3] *Varieties of Virtue Ethics*, ed. by David Carr, James Arthur, and Kristján Kristjánsson (London: Palgrave Macmillan, 2017), p. 3.

as an offhand remark and a serious argument: Crake as mad scientist.[4] There is an ongoing

critical re-evaluation of the use of this epithet, as exemplified in J. Brooks Bouson's trilogy

of articles, in which she progressively moves from seeing Crake as an antagonist to seeing

him as an embodiment of deep green environmental thought.[5] Similar complexity can be

found in Andrew Tate's chapter on the *MaddAddam* trilogy in his *Apocalyptic Fiction*, where

he sees Crake's decision to 'carefully and coldly' bring about the end of the world as a stark

contrast to the messy emotive language of biblical apocalypse seen through the eyes of

contemporary fundamentalist Christian readings.[6] The plurality of characterisations used by

Tate — 'mischievous zealot', 'a characteristically brilliant scientist whose high ideals are

matched only by his penchant for species destruction', 'Atwood's ethically wayward

delinquent genius' — and the willingness to indulge multiple views of the character, are

significant indicators that critics have come to see Crake as more than just another rendition

of a "mad scientist", who is a stock figure, a stereotype.[7] Instead, Atwood presents a complex

portrait of Crake, which entangles his representation with discourse concerning science,

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4   See for instance Katherine V. Snyder, '"Time to Go": The Post-Apocalyptic and the Post-Traumatic in Margaret Atwood's *Oryx and Crake*', *Studies in the Novel*, 43.4 (2011), 470–89 (p. 471); Jovian Parry, '*Oryx and Crake* and the New Nostalgia for Meat', *Society & Animals*, 17.3 (2009), 241–56 (p. 251) <https://doi.org/10.1163/156853009X445406>; Earl G. Ingersoll, 'Survival in Margaret Atwood's Novel *Oryx and Crake*', *Extrapolation*, 45.2 (2004), 162–75 (p. 164); Maria Christou, 'Food in Margaret Atwood's Dystopias', in *Eating Otherwise: The Philosophy of Food in Twentieth-Century Literature* (Cambridge: Cambridge University Press, 2017), p. 135; Zhange Ni, 'Wonder Tale, Pagan Utopia, and Margaret Atwood's Radical Hope', in *The Pagan Writes Back: When World Religion Meets World Literature* (Charlottesville, VA: University of Virginia Press, 2015); Heidi Slettedahl Macpherson, *The Cambridge Introduction to Margaret Atwood* (Cambridge: Cambridge University Press, 2010); etc.

5   J. Brooks Bouson, '"It's Game Over Forever": Atwood's Satiric Vision of a Bioengineered Posthuman Future in *Oryx and Crake*', *The Journal of Commonwealth Literature*, 39 (2004), 139–56; J. Brooks Bouson, '"We're Using Up the Earth. It's Almost Gone": A Return to the Post-Apocalyptic Future in Margaret Atwood's *The Year of the Flood*', *The Journal of Commonwealth Literature*, 46.1 (2011), 9–26 <https://doi.org/10.1177/0021989410395430>; J. Brooks Bouson, 'A "Joke-Filled Romp" through End Times: Radical Environmentalism, Deep Ecology, and Human Extinction in Margaret Atwood's Eco-Apocalyptic *MaddAddam* Trilogy', *The Journal of Commonwealth Literature*, 51.3 (2016), 341–357.

6   Andrew Tate, *Apocalyptic Fiction* (London: Bloomsbury, 2017), p. 21.

7   Tate, *Apocalyptic*, pp. 64–65.

species extinction, and the disparity between a picture of the good life for human beings and a picture of a good life for the planet. Interpreting this character is one of the primary challenges of the trilogy, one to which all critics have been drawn. I read Crake as the final sanction on a society that has refused to change — but I don't see him as unthinkingly evil, or as a rampant capitalist whose greed has run out of control; these views are not substantiated by the textual evidence. His motives appear to be the dictates of conscience, part of a Deep Green critique that points to human greed as the cause of their own destruction. Since the trilogy is an ustopia we are compelled to take this critique seriously because Crake's argument *is* the indictment made by the trilogy against our society; he thinks that all life is going extinct at human hands, and it would be better if it did not. Crake takes all the tools of exploitation used by the Corps, driven by the patterns of human greed shown in the trilogy, and uses them to transform humanity. Atwood does not create paragons or irredeemable monsters — thus, I argue that Crake takes his place alongside Atwood's creative villainesses, as dark, powerful, and ambiguous.

Crake's actions are central to the trilogy, those around which other characters must navigate. He is, in this sense, both a character and a conceit, a plot device; in terms from sf criticism, he is the *novum* around which the narrative is ordered.[8] The narrative voice presents multiple perspectives, not only those of the focalising characters; however, Crake is portrayed only through the perceptions of other characters: first, through Snowman's fragmented memories in *Oryx and Crake*, then through Toby and Ren's more distant reflections on his motivations, and finally through discussion between the MaddAddamites and from Zeb's insider view in *MaddAddam*, which intervenes in the reception of Crake's character, redirecting critical attention to positions they may have overlooked on reading the first novel

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[8] A term coined by Darko Suvin; it refers to an intrusive novelty that splits the fictional world of an sf story from ours by a process of cognitive estrangement. His primary example is the time machine in H.G. Wells's *The Time Machine* (1895).

a decade earlier. Across the narrative, he transforms from a child whose father is murdered (and his father's murderer marries his mother, prompting comparisons with *Hamlet*), into an 'intellectually honourable' teenager with a genius aptitude for science and biology, and finally, after his death, into a mythic or godlike figure for the Crakers to venerate.[9] Critical discussion has compressed his character, reducing him simply to Crake; this overwrites Glenn, his childhood self, completely.[10] Snowman, reflecting on the narrative, finds this process irresistible. Snowman's guilt for failing to perceive Crake's overarching plan and his anger at Crake's betrayal forces him, defensively, to believe that Glenn never really existed, only ever Crake. I will try to combat that tendency by referring to him as Glenn when discussing his childhood, and Crake when discussing him as an adult, and I will maintain a similar distinction in discussions of Jimmy and Snowman.

Crake's pessimistic view of human history — which is connected in the narrative to recent thinking about how humans have evolved by Crake's musings to Jimmy, Ren, and Zeb amongst others — and his complexly orchestrated plan to save the world at the expense of the human society which is crushing the life out of it, creates an implicit comparison with Atwood the writer, as a mastermind plotting the fates of her characters: 'I myself think that compared to reality I'm a reincarnation of *Anne of Green Gables*, but that's beside the point.'[11] Thinking of him in this way, we can compare him to other recent figures from Atwood's works, powerfully dark and ambivalent characters such as Grace Marks from *Alias Grace*, Zenia from *The Robber Bride*, and, like Iris Griffin Chase from *The Blind Assassin*;

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[9] Shuli Barzilai, '"Tell My Story": Remembrance and Revenge in Atwood's Oryx and Crake and Shakespeare's Hamlet', *Critique: Studies in Contemporary Fiction*, 50.1 (2008), 87–110; Margaret Atwood, *Oryx And Crake* (London: Virago, 2009), p. 401.

[10] Forster argues for the importance of flat characters as essential tools for writers; Marta Figlerowicz, *Flat Protagonists: A Theory of Novel Character* (Oxford: OUP, 2016) proposes a genre in which the protagonists become flatter as the narrative continues. I will argue that Crake is not adequately described by either of these approaches, as in each instalment Atwood provides more background and an increasingly complex motivation for the character.

[11] Margaret Atwood, 'An End to an Audience?', *The Dalhousie Review*, LX.3 (1980), 415–33 (p. 426).

Crake can be read as 'a wonderful example of how one character can be so steeped in the rank darkness of villainy and self-deception and still appear so beguilingly sympathetic.'[12] It is worth remembering that in an interview with Brian Bethune in 2003, Atwood indicated that 'From a certain perspective, […] Crake is the most altruistic person around.'[13] In the pre-Flood world, Vallor's model of the technomoral virtues — 'new alignments of our existing moral capacities, adapted to a rapidly changing environment that increasingly calls for collective moral wisdom on a global scale' — have failed to appear in the form required to navigate technomoral problems wisely.[14] Williston writes that:

> In the Anthropocene, what looks like ordinary behaviour has become more deeply problematic. Melissa Lane has argued that the Greeks were more attuned than we are to the problems of *pleonexia*, the overweening desire for gain. A good deal of Greek philosophy, as well as Enlightenment appropriations of it, was focused on the ways in which this socially and politically corrosive desire could be constrained. But the age of fossil fuels introduces a new challenge because the energy these fuels unleash removes "the final constraint on *pleonexia*."[15]

Once *pleonexia* has eroded so much of life of the planet, a more desperate technomoral virtue is required, and Crake is the figure of that desperate, last chance option.

Firstly, since it is used so frequently as a handle for Crake, it is necessary to look at the figure of the mad scientist as a type, and briefly to sketch some of the literary antecedents. How closely does Crake fit these archetypal trappings? Not too well I will suggest, and this is because Atwood is interested, as she is perennially, not in reproducing a stock figure, but in

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[12] Nathalie Cooke, *Margaret Atwood: A Critical Companion* (Westport, CT: Greenwood, 2004), p. 138.

[13] Brian Bethune, 'Book Review: Atwood's Oryx and Crake', *The Canadian Encyclopedia*, 2013, para. 19 <http://www.thecanadianencyclopedia.ca/en/article/book-review-atwoods-bookoryx-and-crakebook/> [accessed 12 November 2014].

[14] Shannon Vallor, *Technology and the Virtues: A Philosophical Guide to a Future Worth Wanting* (Oxford: OUP, 2016), p. 10.

[15] Byron Williston, *The Anthropocene Project: Virtue in the Age of Climate Change* (Oxford: OUP, 2015), p. 86.

playing with it, placing it in new situations, or coming to understand it in a new light. Then I will look, briefly, at representations of autism in *Oryx and Crake*, as early critics were interested in how the characterisation of Crake may have drawn on this discourse. Turning from this to the representation of Crake as a "gamer", specifically inflected through the discourse surrounding video games, brings in a wide array of concerns about education, violence, and the dissolution of community life. This leads onto a consideration of Crake's portrait of human nature, and how much evidence the trilogy provides either for or against it. Crake is the ultimate sanction to a society that has failed to become temperate, and he enforces temperance at the level of instinct, as the Crakers lack the ability to be intemperate; the trilogy does not depict this as a good outcome, but as a necessary one for our continued survival; consequently, the critique that Crake elaborates for Jimmy is one that we cannot dismiss.

On Mad Scientists

Roslynn Haynes, whose book *From Faust to Strangelove: Representations of the Scientist in Western Literature* (1994) was recently significantly expanded into *From Madman to Crime Fighter: the Scientist in Western Culture* (2017), and which in turn anticipates a further expansion, provides the most comprehensive framework for understanding representations of scientists in fiction. In *From Madman to Crime Fighter* she explores seven distinct stereotypes which form the background against which depictions of scientists have been formulated.[16] These are:

1. The morally suspect alchemist.

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[16] Roslynn D. Haynes, *From Madman to Crime Fighter: The Scientist in Western Culture* (Baltimore, MD: Johns Hopkins University Press, 2017), pp. 4–6.

2. The scientist as idealist.

3. The stupid virtuoso.

4. The unemotional scientist.

5. The heroic adventurer.

6. The mad, bad, dangerous scientist.

7. The helpless scientist.

Her monograph traces how these stereotypes arose, against what political and cultural discourses, and then explores how they continue to influence depictions of scientists into the present. In complex portrayals of scientists, many of these strands will be involved, but this schema also provides a guide of how characters can be dismissed or misread because these narratives have the force of archetypes, and can therefore constrain critical responses by directing critics down one particular route. In her brief consideration of *Oryx and Crake*, Haynes suggests that Crake is a flat character, who can be categorised as 'the irresponsible, mad scientist, who believes he is justified in using the whole world as his laboratory.'[17] By exploring both how Crake is depicted in the trilogy and received in the critical literature, I will show that his character draws on more than just "the mad, bad, dangerous scientist" trope, but also the "unemotional scientist", "the alchemist", "the helpless scientist", and even "the scientist as idealist", which Haynes describes as the only ambiguously positive position for the scientist in Western culture. Moreover, in looking into Crake's motivation, life history, myriad connections to other characters in the text, and his friendship with Jimmy, I will argue that Crake is not a flat character, but a figure of ambiguity and a site of complex discourses, comparable to Atwood's villainesses.

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[17]   Haynes, p. 280.

"Ten Ways of Looking at *The Island of Doctor Moreau* by H.G. Wells", originally a preface for the Penguin classics edition edited by prominent sf scholar Patrick Parrinder, has since been anthologised in three of Atwood's essay collections: *Curious Pursuits* (2005), *Writing with Intent* (2005) and now in *In Other Worlds*.[18] It suggests something of the importance of Wells's 'exercise in youthful blasphemy' to Atwood's analysis and writing of speculative fiction, and this despite Atwood's initial suggestion that she writes speculative fiction in the mode of Jules Verne as opposed to that of Wells, as noted in Chapter One.[19] In *Moreau*, it seems, Wells is writing speculatively — she sees his style in this novel to be 'terse' and 'journalistic', resembling the 'ultra-realists', all the while drawing on the contemporary rise of the adventure romance as a type of genre fiction, which is a description that might be applied to Atwood's ventures into the ustopia.[20] Aside from the issue of style, Atwood spends a significant portion of the essay questioning the characterisation of Moreau, both in film adaptations and in the wider public imagination, as a stereotype of a genre figure: 'Moreau himself, in his filmic incarnations, has drifted toward the type of the Mad Scientist, or the Peculiar Genetic Engineer, or the Tyrant-in-Training, bent on taking over the world'.[21] As is appropriate for an introduction, she considers the novel from a number of critical viewpoints, highlighting issues relevant to a wide and varied community of scholars, including post-colonial and feminist issues which are of particular importance to Atwood. In doing so she suggests that Moreau is far more complicated than the cinematic representation would suggest; far from being the Mad Scientist cliché 'most familiar from sf in pulp

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[18] H. G. Wells, *The Island of Dr Moreau*, ed. by Patrick Parrinder and Steven McLean (London: Penguin, 2005); Margaret Atwood, *Curious Pursuits* (London: Virago, 2005), pp. 383–96; Margaret Atwood, *Moving Targets: Writing with Intent 1982-2004* (Toronto, ON: House of Anansi Press, 2005), pp. 386–98; Atwood, *Other*, pp. 150–67.

[19] Wells quoted in Jack Williamson, *H.G. Wells: Critic of Progress* (Baltimore, MD: The Mirage Press, 1973), p. 75.

[20] Margaret Atwood, *Other*, p. 155.

[21] Margaret Atwood, *Other*, p. 150.

magazines and comics', Atwood argues that 'Wells's Moreau is certainly not mad, is a mere

vivisectionist, and has no ambitions to take over anything whatsoever.'[22] Nonetheless,

Moreau is a significant figure for Atwood, and embodies sufficient aspects of the mad

scientist type to yield a useful comparison to Atwood's own fictional scientist.

In a second essay, "Of the Madness of Mad Scientists", Atwood traces the development

of the mad scientist figure from Jonathan Swift's *Gulliver's Travels* to its 'lowest point […]

in the B movie called variously *The Head That Wouldn't Die* or *The Brain That Wouldn't*

Die'.[23] Atwood attempts to make more complex the view of the mad scientist by exposing the

literary and historical roots that gave rise to the stereotype. She thus challenges the ascription

of the tag "Mad Scientist" to many of the figures considered foundational to that stereotype,

including Moreau and Victor Frankenstein. Anne Stiles, writing of late-Victorian mad

scientists, suggests other influential examples include 'Robert Louis Stevenson's *Strange*

Case of Dr. Jekyll and Mr. Hyde (1886), Dr. Raymond of Arthur Machen's *The Great God*

Pan (1894) and the sinister vivisector Dr. Nathan Benjulia in Wilkie Collins's *Heart and*

Science (1883).'[24] While both Frankenstein and Jekyll are quite distant from the stereotype

visible in *The Brain That Wouldn't Die* (1962), Atwood indicates that Moreau, with his

'passion for research' (characterised by Wells as an intellectual 'strange colourless delight')

is the taproot source of some significant aspects of future B-movie depictions.[25] Haynes

corroborates this view, arguing that *The Island of Doctor Moreau* represents Wells's 'most

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[22] Margaret Atwood, *Other*, p. 150.
[23] Margaret Atwood, *Other*, p. 207.
[24] Anne Stiles, 'Literature in "Mind": H. G. Wells and the Evolution of the Mad Scientist', *Journal of the History of Ideas*, 70.2 (2009), 317–39 (p. 323).
[25] Joseph Green, *The Brain That Wouldn't Die* (American International Pictures; Warner & MGM, 1962); H. G. Wells, *The Island of Dr Moreau*, ed. by Patrick Parrinder and Steven McLean (London: Penguin, 2005), pp. 97, 75.

complex and provocative critique of scientism', and that it has come to be 'one of the great modern myths in the tradition of *Faust* and *Frankenstein*'.[26]

In addition to the literary and cultural figures discovered by Haynes, at least two historical scientists lie behind Wells's depiction of Moreau. Stiles identifies the psychiatrist, Jacques Moreau, as the primary figure on whom Wells's Moreau would 'almost certainly' be based.[27] She argues that critics have largely neglected the influence which John Nisbet, author of *The Insanity of Genius* (1891) had upon Wells's intellectual development; and Nisbet's work is primarily based on Moreau's *Morbid Psychology* (1859). She thus positions the fictional Moreau as part of Wells' articulation of the fear of degeneration, to borrow the title of Max Nordau's infamous study. In Wells's view, this arc culminates in the shrivelling away of the bodies of the descendants of these cerebral types, before their final transition into the Martians of *The War of the Worlds* (1897). Likewise, Haynes thinks that 'there is little doubt that Wells intended the obsessive Moreau to represent the new image of the mad scientist as genius linked to insanity.'[28] This history feeds into the reception of Crake by critics in two ways: when they identify Crake as obsessive, and when they identify him as having a flat affect. This contrasts with Atwood's reception of Moreau, whom she takes to not be mad, nor to express totalitarian desires for power.

Another candidate of inspiration for the fictional Moreau is the vivisectionist Claude Bernard. He is supposed to have 'flatly refused to defend by argument his systematic total disregard of distress and pain in his unanaesthetized animals, proclaiming simply that it was the attitude proper for scientists'.[29] Like Bernard, Moreau is contemptuous of others who express sympathy for the animals being vivisected. He may also have served as an inspiration

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[26] Haynes, p. 152.
[27] Stiles, pp. 324–25.
[28] Haynes, p. 153.
[29] Mary Midgley, *Animals and Why They Matter* (Harmondsworth: Penguin, 1983), p. 28.

for Crake more directly, as Crake's fridge magnets, to which I will return, include an inversion of a famous remark by Bernard. France Power Cobbe, anti-vivsectionist and prominent suffragist, quotes Elie de Cyon, a French-Russian anatomist who worked with Bernard, to demonstrate the character required by vivisectionists:

> The true vivisector must approach a difficult question with *joyful excitement*. … He who shrinks from cutting a living animal, he who approaches vivisection as a disagreeable necessity, may be able to repeat one or two vivisections, but he will never be an artist in vivisection … The sensation of the physiologist when, from a gruesome wound, full of blood and mangled tissue, draws forth some delicate nerve thread … has much in common with that of a sculptor.[30]

The cruelty of these views is obvious. These sentiments compare with those expressed by Wells's Moreau:

> "Each time I dip a living creature into the bath of pain, I say," this time I will burn out the animal, this time I will make a rational creature of my own", justifying his procedures by appeal to the time frames of geology and biology, cosmic dimensions of space, and eons of time: "A mind truly opened to what science has to teach must see that it [pain] is a little thing". "After all, what is ten years? Man has been a hundred thousand in the making".[31]

These historical precedents create a type for Moreau as vivisectionist, as a single-minded joyful resolver of intellectual puzzles with no emotional attachments or concerns. In doing so, they invoke the first and fourth of Haynes's stereotypes, which will also be influential in the depiction of Crake. This feeds into the critical view of Crake as emotionless, and an almost demi-autistic figure, a view from which I will dissent on the grounds that, while Crake sometimes presents his reasoning in a similar frame to Moreau, he fails to express anything like the callousness of these vivisectionists.

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[30] Frances Power Cobbe, cited in Rod Preece, *Awe for the Tiger, Love for the Lamb: A Chronicle of Sensibility to Animals* (Vancouver, BC: UBC Press, 2002), p. 309.
[31] Haynes, p. 153.

Reflecting on these elements, Stiles argues that 'the rise of the mad scientist as fictional trope coincided with the growth of scientific professions', and Chung-Hao Ku quotes Chris Hables Gray's related argument, in which conflation between Doctor Frankenstein and his monstrous creation

> signifies that the doctor actually is monstrous in our minds. Equally revealing is that Mary Shelley never actually refers to Frankenstein as a doctor; only Victor or Baron Frankenstein. But it is the doctors we fear today, so we have made him a doctor, and a monster as well.[32]

Atwood's text describes the sub-specialities of a number of its scientist figures: Jimmy's father was a 'genographer'; Sharon, Jimmy's mother, was a microbiologist; Uncle Pete was a scientist, but became a manager; Swift Fox was a 'highly qualified gene artist'; AdamOne studied epidemics; Katuro the Wrench was an internist, and many of the other God's Gardeners were also doctors. The text doesn't specify Crake's sub-speciality, nor does it characterise him professionally. In *MaddAddam* he is sometimes described as having 'gene-spliced' or 'people-spliced', but he is never named by the text as a 'gene-splicer', the most cavalier of scientists in the Pre-Flood world, nor is he named as a biologist or a geneticist. His actions and interests are the only evidence available, and the text does not determine how readers understand this evidence. Like Baron Frankenstein's medical degree, Crake's status as a scientist is one brought to the text. His function is to take the elements of science that have been identified as corrupt — such as the development of diseases to farm profits from sick people who are never cured, and the ready splicing of bioforms with no consideration of the effects — and transform them into a punishment in his role as nemesis. This may have increased the number of critics who refer to Crake as a mad scientist, because this is an easy and swift identifier, whereas a more nuanced description of Crake's work cannot be so

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[32] Stiles, p. 323; Chung-Hao Ku, 'Of Monster and Man: Transgenics and Transgression in Margaret Atwood's Oryx and Crake', *Concentric: Literary and Cultural Studies*, 32.1 (2006), 107–33 (p. 108).

readily included in the course of every argument. This contrasts with Jimmy, whose

profession is repeatedly identified — 'You'll do the ad campaign' Crake says. Jimmy is an

advertising executive, a song-and-dance man, a copywriter; but Crake is just Crake.

Christopher Toumey and Peter Nicholls connect the depiction of the stereotypical mad

scientist to an anti-intellectual trend in sf, which Atwood seeks to exploit in her fiction and

explicate in these essays.[33] At the same time, Atwood scholars have been too quick to find

this anti-science trend in her novels. I want to suggest that Atwood's fictions are not among

the kinds of stories which 'describe which kinds of depraved people use science for amoral

purposes and what becomes of them', nor do they 'caution us to contain secular science

within the firm ethical guidelines of traditional Judeo-Christian values.'[34] 'As such,' writes

Toumey, these characterisations 'convey the argument that rationalist secular science is

dangerous, and their principal device for doing so is to invest the evil of science in the

personality of the scientist.' Griffiths, writing on *Oryx and Crake* shortly after its publication,

takes issue with the way genetics are depicted, suggesting that Atwood is siding with

'popular writers in the media' in unfairly targeting genetics as a science.[35] Atwood has

defended her text repeatedly against such claims, arguing that there is a distinction to be

made between science as a broad enterprise, specific technologies, and the way these are

used.[36] Griffiths's article systematically misreads *Oryx and Crake* by conflating how genetics

is studied and practised in the novel with Atwood's view of genetics as a whole — and it

ignores finer-grained distinctions within the trilogy between characters and their views of

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[33] Peter Nicholls, 'Anti-Intellectualism in SF', ed. by John Clute and others, *The Encyclopedia of Science Fiction* (London: Gollancz, 2012) <http://www.sf-encyclopedia.com/entry/anti-intellectualism_in_sf> [accessed 9 November 2014].

[34] Christopher P. Toumey, 'The Moral Character of Mad Scientists: A Cultural Critique of Science', *Science, Technology, & Human Values*, 17.4 (1992), 411–37 (p. 411).

[35] Anthony Griffiths, 'Genetics According to Oryx and Crake', *Canadian Literature*, 2004, 192–95.

[36] For instance, see Margaret E. Atwood, 'The Battle Between Action and Belief', *Words That Matter*, 2017, para. 8 <https://medium.com/wordsthatmatter/the-battle-between-action-and-belief-49bec7456341> [accessed 7 September 2018].

Illustration 17: First encounter with Muroid

their scientific enterprise. It is not clear that the representation of Crake matches this anti-intellectual portrait, even if his character is caught up in cultural myths of this kind, and even though his actions in the trilogy may be horrific.

This can be demonstrated by turning to another figure in Atwood's canon, the true "mad, bad, dangerous scientist", Dr Muroid in *Angel Catbird* (2016-2017) — in the latter volumes he becomes Professor Muroid. I will turn to a fuller consideration of *Angel Catbird* in the final chapter, but, in brief, *Angel Catbird* is Atwood's three volume superhero graphic novel, in which the hero is transformed by a genetic serum into a man-cat-owl hybrid. He discovers a world of polymorphous characters who are various kinds of half-animal, half-person, who can alter their shapes between animal and human form. His nemesis and employer, Muroid, is a half-rat, and rats are the villains of the piece. Unlike Crake, whose motivations are only partially visible to us and hotly debated, Muroid's intentions are clear from the very beginning. Illustration 24 — which occurs at the outset of *Angel Catbird*, in fact the third page of the text[37] — shows Muroid as an archetypal mad scientist in the super-villain mould, as identified by Atwood in the epigraph to this chapter:

> Presented with a clutch of white-coated men wielding test tubes, we viewers knew at once — being children of our times — that at least one of them would prove to be a cunning megalomaniac bent on taking over the world, all the while subjecting blondes to horrific experiments from which only the male lead could rescue them, though not before the mad scientist had revealed his true nature by gibbering and raving.[38]

None of the other scientists working at Muroid Inc. wear labcoats; Muroid is the only white-coated man present. Moreover, he is immediately identified with a totalitarian logic of exploitation; he keeps two female rats whom he intends to transform into a harem, thus

[37] Margaret Atwood, *Angel Catbird*, ed. by Daniel Chabon, 3 vols (Milwaukee, OR: Dark Horse Books, 2016), I, p. 13.
[38] Margaret Atwood, *Other*, p. 94.

Illustration 18: Muroid's monologue and totalitarian plan

making them a rough approximation of the blondes in Atwood's summation. Muroid references the eutopian possibilities for the super-serum that the company is developing in his justification of the work to the protagonist, but his thought-bubble undercuts the suggestion that the formula will be used for anything other than further exploitation. Indeed, later in the narrative, when Muroid performs his 'gibbering and raving', we discover that he aims to use half-rats to infiltrate every level of government and society, and then overthrow them, forming a totalitarian rat government and exterminating all cats and half-cats.[39] Muroid is a quintessential "mad, bad, dangerous scientist", with no pretence at anything else. Significantly, Crake is not like this, and the comparison shows that he is not simply a genre stereotype.

Virginia Woolf reflects on characterisation in a way that is useful in distinguishing between Muroid and Crake. She recounts a dispute between herself and Arnold Bennett regarding the representation of character in fiction:

> But now I must recall what Mr. Arnold Bennett says. He says that it is only if the characters are real that the novel has any chance of surviving. Otherwise, die it must. But, I ask myself, what is reality? And who are the judges of reality? A character may be real to Mr. Bennett and quite unreal to me. For instance, in this article he says that Dr. Watson in Sherlock Holmes is real to him: to me Dr. Watson is a sack stuffed with straw, a dummy, a figure of fun.[40]

Though Woolf and Bennett agree about the centrality of character to fiction, they disagree about the contents that character must have in order to be convincing. Atwood, in her writing about genre fiction, concurs with Woolf, even touching on the work of Arthur Conan Doyle as her example, and this gives us grounds for dividing Crake from Muroid:

> In novels proper the central characters are placed for us in social space by being given parents and relatives, however unsatisfactory or dead these may be

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[39] Atwood, I, pp. 36–37.
[40] Virginia Woolf, *Mr. Bennett and Mrs. Brown* (London: The Hogarth Press, 1924), p. 10.

at the outset of the story. These central characters don't just appear out of thin air as fully grown adults, the way adventure heroes are likely to do (Sherlock Holmes has no parents); rather they are provided with a past, a history. The past accounts in part for the character's inner problems, or conflicts, thus making him or her round enough to pass muster.[41]

In Atwood's case, this is not to say that one depiction is superior — only that they have different objectives, suitable to the types of stories in which they appear.[42] As Atwood lists it here, Crake comes with all the associated baggage of a rounded character, and, as with Jimmy, we grow with him as a character through his formative years. If *Oryx and Crake* has some of the trappings of a bildungsroman, it is as much one for Crake as it is for Jimmy. By contrast, Muroid has no function except villainy, and no connections except employer-employee relationships or the domination over his loyal rat army. What the Muroid depiction makes clear is that if Atwood had wanted Crake to be a "mad, bad, dangerous" scientist, she had the means to do so; this suggests that the nuances of his characterisation deserve more recognition than the knee-jerk "mad scientist" label have permitted.

Numbers People, Word People

Both "Ten Ways of Looking At The Island of Doctor Moreau" and "Of the Madness of Mad Scientists" were written after Atwood had created Crake. Indirectly, these essays attempt to shield Crake from the application of the label "mad scientist", by highlighting aspects of the mad scientist that simply do not chime with her depiction of him in the *MaddAddam* trilogy.

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[41] Margaret Atwood, *Other*, p. 59.

[42] Atwood is a fan of Doyle's works, and wrote on an "Ask Me Anything" session on Reddit that: 'I fancy Sherlock Holmes, but he doesn't date much, and anyway the date would be interrupted because he would have to rush off in the middle of it to trap some criminal.' Sarah Galo, 'Margaret Atwood: "I Fancy Sherlock Holmes, but He Doesn't Date Much"', *The Guardian*, 2014 <http://www.theguardian.com/books/booksblog/2014/dec/30/margaret-atwood-reddit-ama-sherlock-holmes> [accessed 17 January 2015].

These moves have not typically been explored by Atwood critics, who instead tend, almost instinctively, to set Crake very firmly into the "mad, bad, dangerous scientist" category for a number of interesting reasons that Atwood anticipates in these two essays. These reasons can be traced back to Wells's depiction of Moreau's genius as diseased; consequently, they centre around questions of Crake's "genius", his psychological health, his supposed narcissistic tendencies, and his alleged autistic traits.

These views are attached to "the unemotional scientist" in Haynes' framework. Scientists are powerful figures in contemporary society, made so by their training and knowledge, which is critical to societal and governmental aims. Haynes argues that 'this powerful knowledge is identified with':

1. cultivation of rationalist skills and corresponding suppression of the emotions;

2. an objective perspective;

3. efficiency elevated to moral value;

4. reification of individuals to statistical units; and

5. integration of technological and economic systems so that the former receives further justification, because it secures wealth, and hence political dominance, for the society that possess such expertise.'[43]

Crake can be, and has been, identified with all of these points except the last. That Crake cannot be reconciled with (5) makes total identification with this characterisation untenable. However, it is important to explore how Atwood utilises the other four points identified by Haynes, because they play an important role in the scholarly literature regarding Crake.

Considering (1) and (2), Howells has argued that Crake 'espouses a purely empirical approach which devalues imagination, morality, and art'.[44] Sharon, Jimmy's mother, thinks that

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[43] Haynes, p. 213.

[44] Coral Ann Howells, *Margaret Atwood*, 2nd edn (Basingstoke: Palgrave Macmillan, 2005), p. 117.

Crake was different. More like an adult, she'd said; in fact, more adult than a lot of adults. You could have an objective conversation with him, a conversation in which events and hypotheses were followed through to their logical conclusions.[45]

His "unnatural" facility with reasoning and his identification with the objective viewpoint from childhood is one of the primary ways that Crake is identified with "the unemotional scientist".[46] Appleton calls it his 'immunity to life', and Dunning highlights Crake's calculated isolation by contrasting it with the emotions that Crake apparently represses: 'He remains clinically detached, despite the unacknowledged personal agony that drives him chronically to scream in dreams.'[47]

In *Oryx and Crake* (3) efficiency and (4) the reification of individuals to statistical units can be identified in Crake's homilies to Jimmy:

I've seen the latest confidential Corps demographic reports. As a species we're in deep trouble, worse than anyone's saying. They're afraid to release the stats because people might just give up, but take it from me, we're running out of space-time. Demand for resources has exceeded supply for decades in marginal geopolitical areas, hence the famines and droughts; but very soon, demand is going to exceed supply *for everyone*. With the BlyssPluss Pill the human race will have a better chance of swimming.[48]

Crake's reflections often take this statistically-inflected approach, but this instance, which is the justification for Crake's plan to eliminate the human species, is the most important. In his

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[45] Margaret Atwood, *Oryx*, p. 79.

[46] For critics such as Barzilai, DiMarco, Bandyopadhyay, and Tolan who see Sharon as the conscience of *Oryx and Crake* – associated with the feminine voice of resistance in Atwood's male-science-mastery dystopia – Sharon's recognition of Crake's thinking and admiration for it is a difficult point. Indeed, this conversation between Sharon and Crake comes only a few months before her departure from the Compound. Mundler traces this to a recurring Atwood motif where, as the main character enters puberty, the mother departs, but it seems to me that the admiration expressed by Sharon for Crake suggests that, at least in part, she finds his views and his precocious "adulthood" inspiring.

[47] Sarah Appleton, 'Corp(Se)Ocracy: Marketing Death in Margaret Atwood's Oryx and Crake and The Year of the Flood', *LATCH: A Journal for the Study of the Literary Artifact in Theory, Culture, or History*, 4 (2011), 63–73 (p. 66); Stephen Dunning, 'Margaret Atwood's Oryx and Crake: The Terror of the Therapeutic', *Canadian Literature*, 186.3 (2005), 86–101 (p. 94).

[48] Margaret Atwood, *Oryx*, p. 348.

statement of this Malthusian problem, Crake refers only to species-level arguments, not societies, groups or individuals. Where the novel draws on evolutionary themes, it often does so to erase the value of individual experience — though it does also have the reverse effect of broadening individual concerns to those of the global and species level in some circumstances. Glover sees this in the logic of the BlyssPluss pill:

> Crake's use of the BlyssPluss Pill thus becomes illustrative of his extreme instrumentalism: other humans, not just nature, become mere objects to Crake, as only the objectification of humans could allow him to rationalise removing their ability to conceive without their knowledge.[49]

It seems likely that this contributes to Crake's reception by critics as "unemotional scientist", but it also forms the basis of the critique of the pre-Flood world. Crake's condemnation of the scale of human abuse of the planet; recorded in this statistical and unemotional way it is an indictment of our current approach to the environment. Our extreme excesses can only be properly described at the species level, and temperance, a personal virtue, is insufficient to fix the problem at the stage in which Jimmy and Crake find themselves. Moreover, Crake is not the sole voice of this reification to statistical units; the narrative voice is also a place where individuals are replaced by roles or figures — particularly, for instance, the references to 'parental units'. The parents in *Oryx and Crake* are largely unknown — only Jimmy's mother is named, and she is named by Ramona, the lab-tech who will replace her in her husband's affections once Sharon has left to conduct her activist campaign. It is only in *MaddAddam* that we find out Crake's mother's name is Rhoda — Crake's father, like Jimmy's, remains unnamed.

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[49] Jayne Glover, 'Human / Nature: Ecological Philosophy In Margaret Atwood's Oryx And Crake', *English Studies in Africa*, 52.2 (2009), 50–62 (pp. 55–56) <https://doi.org/10.1080/00138390903444149>.

The division of children into two streams, "numbers people" and "word people", also plays a role in the characterisation of Crake as unemotional.[50] Jimmy is identified as a word person, and his listing of "obsolete" words — as well as his invention of plausible but non-extant words — are taken to show his sole identification with the "literary". Jimmy's practice of listing anachronistic words resembles a similar pattern shown by Joan Foster in *Lady Oracle*, which Davey links to Joan's 'derivativeness': "I made lists of words like "fichu" and "paletot", and "pelissse"; I spent whole afternoons in the costume room of the Victoria and Albert Museum", she tells us.'[51] Likewise, "numbers men" appear earlier in Atwood's works, as a characterisation of the scientists at a conference in Toronto in *Cat's Eye*: 'The numbers men murmur in groups, shake one another's hands. Among them I feel overly visible, and out of place.'[52] This is a scene of mutual incomprehension, in which Elaine tries to connect with her brother by returning to memories of their childhood. Deery, in an idiosyncratic argument that connects every major theme in Atwood's writing to the basic laws of physics, suggests that

> The counting and the naming and the mapping continue, the hunt for the first picosecond, the great white quark, the distant stars. But the underworld of shifting objects, of unpredictability and evasion, this is the world of women. Men are protected by their unawareness. The "numbers men", as Elaine calls

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[50] James McGrath argues this distinction signifies 'neurotypicals and autistics, respectively' in James McGrath, '"Outsider Science" and Literary Exclusion: A Reply to Denials of Autistic Imagination', in *Naming Adult Autism: Culture, Science, Identity*, Kindle (London: Rowman & Littlefield, 2017), pp. 21–67 (p. 34). Some critics contend that Atwood expands on this binary division for the sole purpose of confounding it, as in Sarah Gail Farrell, 'Removing The Binaries Between Humanity And Nature: The Female Perception Through Science Fiction Utopias' (unpublished PhD, University of Texas at Arlington, 2015), p. 213 <https://uta-ir.tdl.org/uta-ir/handle/10106/25021> [accessed 31 January 2017]; and in Roman Bartosch, 'Literary Quality and the Ethics of Reading: Some Thoughts on Literary Evolution and the Fiction of Margaret Atwood, Ilija Trojanow, and Ian McEwan.', in *Literature, Ecology, Ethics: Recent Trends in Ecocriticism*, ed. by Timo Müller and Michael Sauter (Heidelberg: Universitätsverlag Winter, 2012), p. 113−128 (p. 121).

[51] *Lady Oracle* quoted in Frank Davey, *Margaret Atwood: A Feminist Poetics* (Vancouver, BC: Talonbooks, 1984), p. 64.

[52] Margaret Atwood, *Cat's Eye* (London: Virago, 2009), pp. 332–33.

them, are beginning to discover it, but Atwood suggests that women know this realm already, from the inside.[53]

Thus, for Deery the separation of people into "numbers men" and, implicitly, "word women", is viable; however, she suggests that the knowledge of the "numbers men" is less valuable than that of the women, and the numbers only partially reveal what the experience of women has let them know all along. Lobo, responding to a similar divide he identifies in the scholarly writing on the *MaddAddam* trilogy, disagrees with the bifurcation, and finds that much

> of the critical literature deploys Crake as both an ecocritical and humanist scapegoat, denouncing "the misuse of science" and "the arrogance of Promethean scientists who not only seek to manipulate and control nature". In his "extreme instrumentalism" Crake fails to "believe in God or Nature," or even, "in the value of human life." He is painted as Jimmy's constitutive other, drawing up clear disciplinary battle lines, portraying them as "opposites" whereby "Crake is the cynical, unsentimental, hyperrational, brilliant scientist; Jimmy is the humanist who loves language and art."[54]

Lobo is right to suggest that critics have taken this split too seriously and too readily, and they accept it partly because it plays into the characterisation of Crake as an "unemotional scientist". This role determines the critical responses to Crake, which prevents the development of responses to the portrayal of the character in the text. For instance, Stephen Dunning suggests that Crake is unable to 'explain himself, which is inevitable given those vital human qualities that slip through his net of numbers.'[55] By contrast, Osborne suggests that Jimmy's wordiness does not extend to 'analytical discourse', which instead is understood

[53] June Deery, 'Science for Feminists: Margaret Atwood's Body of Knowledge', *Twentieth Century Literature*, 43.4 (1997), 470–86 (p. 482).
[54] Phillip Lobo, '0: An Intervention into the Critical Discourse around Margaret Atwood's Oryx and Crake.', Chiasma: A Site For Thought, 4.1 (2017), 40–73 (pp. 51–52) Here Lobo cites Bouson, 'Game'; Glover; and Karen F. Stein, 'Problematic Paradice in Oryx and Crake', in *Margaret Atwood: The Robber Bride, The Blind Assassin, Oryx and Crake*, ed. by J. Brooks Bouson (Cambridge: Continuum, 2010).
[55] Dunning, p. 96.

as 'the area most comfortable to Crake'.[56] As Barzilai points out, these distinctions don't make sense in the context of the narrative, because Crake, the "numbers" person, has thoroughly deceived the "word" person who should be capable of distinguishing between truth and lies wrought with words: 'Simply put, the numbers man did a word-number on the humanist.'[57]

Two other points for consideration regarding the characterisation of "numbers" and "words" people should be raised at this point. Firstly, while the education system apparently makes this division, and it is reinforced by some of the characters views in the text, this does not cut off Crake from words, nor Jimmy from numbers. This distinction is a social construction, which the novel consistently troubles; when critics demonise "numbers people", they are assenting to the societal expectations of the pre-Flood world, which Atwood emphatically does not endorse. Crake quotes Byron; he suggests Jimmy read stoic philosophy as a comfort when his mother abandons him; his first round of fridge magnets alludes to William Blake's "The Lamb" in *Songs of Innocence* (1776)[58] and Alexander Pope's "An Essay on Man: Epistle II" (1733-1734); and the name of Crake's research laboratory may be a reference to John Milton's epic *Paradise Lost* (1667), and to the pleasure dome of Samuel Taylor Coleridge's "Kubla Khan" (1816).[59] Crake's artistic references intensify in the second round of fridge magnets, which Snowman later believes to represent a highly charged symbol of a shift in Crake's purposes.

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[56] Carol Osborne, 'Mythmaking in Margaret Atwood's Oryx and Crake', in *Once upon a Time: Myth, Fairy Tales and Legends in Margaret Atwood's Writings*, ed. by Sarah Appleton (Newcastle upon Tyne: Cambridge Scholars Publishing, 2008), pp. 25–46 (p. 30).

[57] Barzilai, 'Tell', p. 91.

[58] Atwood makes extensive references to Blake, especially in *The Year of the Flood*.

[59] Margaret Atwood, *Oryx*, pp. 190, 80, 245, 178; Atwood uses references to the 'secret pleasure dome' in The Blind Assassin to refer to Iris and Alex's affair, and in Margaret Atwood, 'Hardball', in *Good Bones* (London: Virago, 2010), pp. 87–90 (pp. 87–88), all surviving humans live under a 'stately pleasure dome' that protects them from 'deadly cosmic rays and the rain of sulphuric acid and the air which is no longer.'

Crake still had a collection of fridge magnets, but they were different ones. No more science quips.

Where God is, Man is not.

There are two moons, the one you can see and the one you can't.

Du musz dein Leben andern.

We understand more than we know.

I think, therefore.

To stay human is to break a limitation.

Dream steals from its lair towards its prey.[60]

It is worth considering the allusions made by these fridge magnets in detail because they reveal the extent to which Crake is a literary figure, as one who quotes and revels in wordplay, but which also shows Crake as a literary figure in the sense that he is partially constructed by literary allusion to other texts.[61] Accordingly they resemble the epigraphs that begin and frame the novel.

Discussed at length by Bergthaller and Sławomir Kozioł, one of these fridge magnets is a reference to Rainer Maria Rilke's "Archaischer Torso Apollos", a poem about a confrontation between the poet and a shattered Greek sculpture of a torso in the Louvre.[62] For Bergthaller "Du mußt dein Leben ändern" — translated as "you must change your life" — is a motto of self-transformation, a restatement for the reader of the importance of making changes to our society sooner rather than later. Kozioł notes Peter Sloterdijk's reading of the poem, which traces Rilke's inspiration to his work for Auguste Rodin; on this reading, the

[60]   Margaret Atwood, *Oryx*, p. 354.
[61]   Kozioł uses these fridge magnets in his argument which places Crake as an artist of the Avant Garde, 'Crake's Aesthetic: Genetically Modified Humans as a Form of Art in Margaret Atwood's *Oryx and Crake*', *Critique: Studies in Contemporary Fiction*, 59.4 (2018), 492–508 (pp. 494–96) <https://doi.org/10.1080/00111619.2018.1432556>; Wagner-Lawlor also contributes to the discussion of the Crakers as a form of "celluar art" in *Postmodern Utopias and Feminist Fictions* (Cambridge: CUP, 2013).
[62]   Rainer Maria Rilke, *Selected Poems*, trans. by Susan Ranson and Marielle Sutherland (Oxford: OUP, 2011), pp. 80–83.

poem is about how something can be aesthetically perfect without being complete. Seen in this way, the Crakers are works of art. In Crake's design, so Kozioł suggests, the speculative intelligence is left out, like the head of the torso in the poem. This creates an implicit parallel with the ChickieNob, which is also a headless torso.

The other magnets are equally suggestive, but are not discussed at length in the scholarly literature. "We understand more than we know" is a reversal of a quotation attributed to Claude Bernard, the vivisectionist; he is supposed to have said: "We achieve more than we know; we know more than we understand; we understand more than we can explain."[63] When Jimmy opens the Paradice airlock, shortly before shooting Crake, '*We understand more than we know*' is repeated by the narrative voice — it is unclear if this is a realisation of Jimmy's or an interjection by Snowman, or just the narrative voice.[64] This suggests Jimmy's complicity in Crake's plan; despite his walled upbringing, during which he deliberately shut things out, he still recognises what Crake's appearance at the airlock means. The reference to Descartes' *cogito* (which appears in the first list of fridge magnets in a different form) is fractured and incomplete, which distances Crake from the cartesian perspective which some posthumanist scholars have found in the text.[65] "To stay human is to break a limitation" comes from Anne Carson's verse novel, *The Beauty of the Husband* (2001), which is simultaneously a meditation on Keats' dictum that "Truth is Beauty, Beauty Truth" and a story of a failing marriage.[66] In the section leading up to this line, the protagonist reflects on her husband's relationship to his mistress at the time, after the couple have been married little more than a year. After attending a film in which a bookshop owner routinely

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[63] Dennis Knight Heffner, *Unlimited Progress: The Grand Delusion of the Modern World* (New York, NY: iUniverse, 2010), p. 73.

[64] Margaret Atwood, *Oryx*, p. 384.

[65] Rene Descartes, *Discourse on Method and The Meditations*, ed. by F.E. Sutcliffe (London: Penguin, 1968), p. 53.

[66] Anne Carson, *The Beauty of the Husband: A Fictional Essay in 29 Tangos* (London: Jonathan Cape, 2001), loc.117.

fondles his assistant as she climbs a ladder to retrieve a book, the husband asks: "How do

people get power over one another" — later that day, he confronts his wife with a picture of

his mistress, which he shows her with 'shy pride'.[67] The final thought in the section is the

response to this betrayal, to the envy that the protagonist feels towards the French mistress:

"To stay human is to break a limitation. / Like it if you can. Like it if you dare." This directly

connects to Crake's betrayal of Jimmy, and, in the airlock scene, to the revelation that Crake

knows all about Jimmy's 'lovesick sorrows'.[68] The final fridge magnet is part of a line of

dialogue from Samuel Beckett's *Mercier and Camier* (1970).[69] In this section, the two

characters are sitting in saloon in Dublin, and Mercier confesses to Camier that his 'dearest

dream', which he abandoned because of his marriage to Toffana, was 'the leaving of the

species to get on as best it could without me.'[70] The pair leave and wander the streets, having

to discount riding their bicycle because every part of it has been stolen apart from the pump.

As they do, they imagine all the people inside, warm, dozing, who are about to fall prey to

their dreams. This is analogous to Crake's scheme, part of which includes his own death,

leaving the species to get on as best it can in his wake. All of these speak of a cultural

literacy, almost frustrating in its specificity, which engenders a kind of obscurity. The

acknowledgements of *Oryx and Crake* indicate that the sources for the fridge magnets can be

found on www.oryxandcrake.com — that website is now defunct, and even using internet

retrieval services, the sources of the fridge magnets are lost. This transforms the fridge

magnets into shattered remnants of the Anthropocene, like the ChickieNob bucket and the

bottles of bleach that the Crakers find on the beach. That the source of the "two moons" line

remains elusive somehow charges it with symbolic potential. Nevertheless, this provides

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[67] Carson, loc.95-106.
[68] Margaret Atwood, *Oryx*, p. 384.
[69] Samuel Beckett, *Mercier and Camier*, ed. by Sean Kennedy, Kindle (London: Faber and Faber, 2012), p. 86.
[70] Beckett, p. 83.

evidence that Crake escapes the regimen in which the label "numbers" person is meant to have caught him.

The second point against the word/numbers dichotomy, is that the text destabilises the binary in the person of Barb Jones, alias Amanda Payne, friend to Ren and Jimmy. 'She was an image person, not a word person' — and not, I take it, a "numbers" person either.[71] She is a conceptual artist; her defining work is Vulture Sculptures:

> The idea was to take a truckload of large dead-animal parts to vacant fields or the parking lots of abandoned factories and arrange them in the shapes of words, wait until the vultures had descended and were tearing them apart, then photograph the whole scene from a helicopter.[72]

This work is evidently inspired by her time among the God's Gardeners. She claims to think in pictures, and says very little. Sheckels, in a related point, argues that she is a figure dominated by exchange, typically, in Sheckels' view, by the use of sex as a commodity.[73] This renders her comparable to Oryx, who has also had to barter her sexuality to make her way from her home to the Massachusetts-setting of the novel. The profusion of visual art, of spectacle, and of hallucinatory dreams in the novel similarly contribute to the idea that there are other paradigms at play in the text than are captured in the numbers-words divide; indeed, Atwood evidently seeks to criticise such a divide by showing it to be damaging and false.

However, where Crake really departs from Haynes's schema of the "unemotional scientist" is in her fifth point, under which the unemotional scientist is supposed to reinforce the dominance of technology within society because it will create wealth or power. In as much as this is their aim, such scientists 'are depicted as fitting representatives of the Western technological society insofar as they embody the vision of a utopian future and the potential

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[71] Margaret Atwood, *Oryx*, p. 286.
[72] Margaret Atwood, *Oryx*, p. 287.
[73] Theodore F. Sheckels, *The Political in Margaret Atwood's Fiction: The Writing on the Wall of the Tent* (London: Routledge, 2016), loc.3501, loc.3549-3570.

to produce the state-of-the-art technology that accumulates wealth and power.'[74] Crake, who, as described above, responds primarily to a critical view of these societal aims, cannot be aligned with this conception. This is not to jettison Haynes's framework; my contention is that, in contrast to pure mad scientists, Atwood draws on multiple strands in the representation of Crake in a way that draws on a variety of other discourses than merely scientism. Haynes has one further sub-type of the "unemotional scientist" which may reflect Crake's characterisation more accurately, but which suggests that critical accounts which are based on Crake as "mad, bad, dangerous scientist" may be flawed: this is the figure of the "amoral scientist":

> Compared with mad or evil scientists, amoral scientists are less readily identifiable as evil; they do not pursue science for power or wealth but merely for the apparently modest reward of solving an abstract intellectual problem, sometimes with patriotic intention.[75]

In the first instance, Haynes identifies this figure in the physicists who worked on the Manhattan Project. She quotes Enrico Fermi: 'Don't trouble me with your conscientious scruples. After all the thing is superb physics.'[76] Thus, though the scientist in this mode is not evil in the sense of the "mad, bad, dangerous scientist", they may nonetheless be threatening, dismissing ethical concerns as inimical to science and scientific progress. Crake's admiration for the innovations in the bio-terrorist attacks of the MaddAddamites and his desire to preserve the biodiversity of the cloud forests at the expense of the lives of the people who work for Happicuppa, both suggest that his characterisation draws strongly from this type.

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[74] Haynes, p. 213.
[75] Haynes, p. 235.
[76] Haynes, p. 236.

Asperger's U

In a related way, J. Brooks Bouson reads Crake as demi-autistic, with a number of interesting consequences. She contends that this puts 'a contemporary twist' on the "mad scientist", and points to Atwood's inspiration for Crake's name in 'the boy-genius pianist, Glenn Gould' as evidence for a 'narrowly focused' Crake, with 'poor social skills and a lack of empathy'.[77] Brian Bethune, cited by Bouson, raises this topic with Atwood:

> Asked about drawing this link between the animal-loving Crake, who clearly has Asperger's syndrome — a high-intellect variant on the spectrum of autistic disorders — and the notoriously eccentric Glenn Gould, Atwood responds eagerly. "I bet, I'll just bet, that Gould had Asperger's even if they didn't diagnose it back then. Want to know a factoid I learned after I wrote the book? When he was 10, Gould wrote an opera where all the people died at the end, and only the animals survived. That gave me a chill."[78]

Despite attaching to Crake the idea that he has a serious condition, Bouson continues to describe Crake as a 'trickster-jokester', silently laughing behind his deadpan exterior and 'dark laconic clothing'.[79] The critic who has done the most work on the representation of Asperger syndrome in *Oryx and Crake* is James McGrath, who is himself autistic, in his *Naming Adult Autism: Culture, Science, Identity* (2017). He identifies *Oryx and Crake* as a key text in the cultural construction of autism, and the increasing depiction of autistics as solely skilled at STEM subjects, evincing no enjoyment at either creating art or experiencing it; it 'marks the association of autism with STEM becoming culturally naturalized: that is, taken as read.'[80] Straightforwardly reading Crake as autistic, McGrath focuses on the depiction of Crake as a monstrous figure, with no appreciation for the arts and who callously butchers the human race. As such, McGrath invests heavily in the distinction between word

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77   Bouson, 'Game', p. 145.
78   Brian Bethune, 'Atwood Apocalyptic', *Maclean's*, 2003, 44–49 (p. 46).
79   Bouson, 'Game', p. 141; Margaret Atwood, *Oryx*, p. 86.
80   McGrath, p. 36.

and number people, which, as I have argued, is not given in the novel as an eternal truth about the world of *Oryx and Crake*, but a socially constructed difference that the trilogy consistently undermines. Simultaneously, though McGrath finds a number of elements in Atwood's novel problematic he also finds aspects to celebrate; for instance, 'semi-progressively', the novel was an early instance of novelists using the

> autistic community's own language by having Crake refer to Jimmy as "neurotypical". The rareness of this term in the fiction of the period was such that in 2008 *The Oxford English Dictionary* recorded its appearance in *Oryx and Crake* as an early usage of the noun.[81]

McGrath's reading of Atwood is that her depiction of autism is ultimately ambiguous — which comes as no surprise to Atwoodian scholars. Atwood's preference, in her fiction and in countless interviews, has been to open questions, not necessarily to answer them.

Both Bouson and McGrath begin from the designation in the text of the Watson-Crick Institute, Crake's *alma mater,* as 'Asperger's U', the description of its inhabitants as 'demi-autistic', and the description by its inhabitants of other students, such as Jimmy, as neurotypicals.[82] However, using these terms as they stand is controversial; in the text, they are used as quick and derogatory characterisations by teenagers, with all of the lack of sensitivity and connotations of bullying which such a source may indicate. McGrath mistakenly attributes this phrase to 'local youngsters' 'outside' the Institute , but *Oryx and Crake* attributes this designation to Watson-Crick students; Asperger's U is a self-adopted

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[81] McGrath, pp. 35–36.

[82] National Autistic Society, 'Proposed Changes to Autism and Asperger Syndrome Diagnostic Criteria', *The National Autistic Society*, 2013 <http://www.autism.org.uk/about-autism/all-about-diagnosis/changes-to-autism-and-as-diagnostic-criteria/proposed-changes-to-autism-and-as-diagnostic-criteria.aspx> [accessed 4 August 2014]; Margaret Atwood, *Oryx*, pp. 226, 228; National Autistic Society, 'How to Talk about Autism', 2015 <https://web.archive.org/web/20150713051329/http://www.autism.org.uk/news-and-events/media-centre/how-to-talk-about-autism.aspx> [accessed 16 February 2018] describes the use of neurotypical within the autism community.

nickname.[83] Even usually careful scholars, such as Richard A. Posner, slip from attributions of 'demi-autism' to the derogatory, as in his description of Crake as 'a perfectly credible twenty-first-century intellectual psychopath, with his faintly autistic, ascetic hyper-rationalism and his techie-bureaucratic talk'.[84] The sense in which "faint autism" is used as evidence in a portrait of an 'intellectual psychopath' is unjustifiable in this context — Simon Baron Cohen has written several books which consider the question of how far autism or autistic behaviour might be modelled on similarities with psychopathic behaviour — but it should not be used as a throwaway phrase, or stand as a shorthand for disconnection.[85] This should sound a note of caution for all critics writing on the subject, and act to reinforce the scholarly commitment to sensitivity.[86] Throughout her article, Bouson instead uses phrases such as 'Asperger's-like', which serve to keep her from committing to the position that Crake really is autistic but with the heavy implication that he is.[87] In a connected way, we can see claims about Crake's 'genius' state — reproduced by Bouson, who uses the term nine times — as problematic; Joseph Straus has argued that such portrayals distort the reality which is that '[p]eople who have been labelled as savants are not otherworldly super-crips or bizarre freaks; rather they are people who, like the rest of us, are good at some things and not so

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[83] McGrath, p. 35.

[84] Richard A. Posner, 'The End Is Near', *New Republic*, 22 (2003), 31–36 (p. 32).

[85] Simon Baron-Cohen, *Zero Degrees of Empathy: A New Theory of Human Cruelty* (London: Allen Lane, 2011); Simon Baron-Cohen, *The Science of Evil: On Empathy and the Origins of Cruelty* (New York: Basic Civitas Books, 2012).

[86] See Sally Chivers, 'Margaret Atwood and the Critical Limits of Embodiment', in *Margaret Atwood: The Open Eye*, ed. by John Moss and Tobi Kozakewich (Ottawa, ON: University of Ottawa Press, 2006), p. 396 for an extended discussion of *Oryx and Crake* and embodiment from the perspective of Disability Studies; Chivers argues that a normative physicality 'blatantly dominates' the novel, and that its 'eugenic logic' begins with the elimination of disability in the pre-Flood world. By contrast, McGrath, p. 58 notes an 'important complexity': 'in Atwood's novel Asperger syndrome is not a disability' which is 'sometimes liberating, sometimes problematic'.

[87] Bouson, 'Game', p. 145.

good at others.'[88] It is easy to see the roots of this view in the characterisation of Wells's Moreau as a diseased genius.

The diagnosis of Crake as demi-autistic can be understood as a response to the kinds of representations of scientists at play in western culture, and which therefore determine the reception of Crake as a character. The "faint autism" and 'techie-bureaucratic talk' are not wholly substantiated by the representation of Crake in the novel. In fact, we never see Crake do any science at all — all of his ideas are conveyed to us through his theoretical conversations with Jimmy, and his status as a scientist is only displayed in his progress through the educational system and job market, and secondarily through the eyes of other scientists working for RejoovenEsense, who express admiration for his skills even after the Flood. Barzilai rejects the amoral scientist characterisation, as well as Bouson's suggestion that Crake may be suffering from a high-functioning autism — she points out that as a child he exudes 'a dignity and authority that precludes the "weirdo" status of his classmates', and, when he runs his own project, there is 'no indication of social or managerial ineptitude'.[89] This is not to suggest that autism entails social or managerial ineptitude, merely that in this case his apparent ease in social situations, his ready understanding of facial expressions and body language, are not suggestive of autism as currently understood.[90] Barzilai also thinks that Crake cares for Jimmy 'in both senses of the word "care"', which 'becomes apparent at several junctures in their unparallel development.'[91] Barzilai's reading accords to some extent with mine; Crake is more than simply an autistic scientist — and certainly more than 'an

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[88] Bouson, 'Game', p. 145; Joseph Straus, 'Idiots Savants, Retarded Savants, Talented Aments, Mono-Savants, Autistic Savants, Just Plain Savants, People with Savant Syndrome, and Autistic People Who Are Good at Things: A View from Disability Studies', *Disability Studies Quarterly*, 34.3 (2014), sec. 3 <http://dsq-sds.org/article/view/3407> [accessed 4 August 2014].

[89] Barzilai, 'Tell', p. 104.

[90] See for instance Simon Baron-Cohen, *Mindblindness : Essay on Autism and the Theory of Mind* (Cambridge, Mass.: MIT Press, 1997); or a more personal reflection in Temple Grandin, *Thinking in Pictures: And Other Reports from My Life with Autism* (London: Bloomsbury, 2009).

[91] Barzilai, 'Tell', p. 91.

amoral one, motivated by money.'[92] There is no doubt that the depiction of Crake does draw on popular understandings of autism, and, regrettably, as McGrath argues, has acted as a site to reinforce such constructions. However, this does not do justice to the figure of Crake as he appears in the text: though he is identified as a number person, his rhetoric triumphs over that of the word person; though he excoriates the role of art and literature, he cites an expansive array of poetry, and, according to Kozioł, is figured as an artist of the Avant Garde, whose works of living sculpture, the Crakers, are entrancingly beautiful. If *Oryx and Crake* has formed a focal point in discourse on autism for the unfortunate reason McGrath suggests, it has done so as a not-so-creative misprision.

Thus, I argue that the Asperger syndrome which other critics identify in Crake is not connected to autism in the real world; it is instead a critical extension of the stereotype of the amoral scientist, gesturing at his portrayal as being beyond human concerns. There is therefore some justification for McGrath's view that autism is used as 'a prosthetic […] "a device of characterisation"' in the trilogy, rather than offering a genuine portrait of autistic subjectivity.[93] In the view of such critics, Crake's identification with the species-level, rather than the individual human life, disconnects him from his society:

> [M]an is by nature a political animal. He who is without a city, by reason of his own nature and not of some accident, is either a poor sort of being, or a being higher than man: he is like the man of whom Homer wrote in denunciation "Clanless and lawless and heartless is he."[94]

He can thus be construed as a "monster". The lack of attachment and the lack of affect that critics have understood Crake to embody thus draw on a complex of stereotypes and stock figures which do not, I argue, do justice to the character in the novel or indeed to people with

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[92] McGrath, p. 56.

[93] McGrath, p. 36; for more on narrative as prosthesis, see David T. Mitchell and Sharon L. Snyder, *Narrative Prosthesis: Disability and the Dependencies of Discourse*, Kindle (Ann Arbor, MI: University of Michigan Press, 2011).

[94] Aristotle, *Politics*, ed. by R.F. Stalley, trans. by Ernest Barker (Oxford: OUP, 2009), p. 10 (1253a2).

Asperger syndrome in real life. Far from embodying philistinism, Crake is persuasive, insightful, and creative — not so distant from Atwood's villainesses after all.

The Player of Games

> Then we must first of all, it seems, supervise the storytellers. We'll select their stories whenever they are fine or beautiful and reject them when they aren't. And we'll persuade nurses and mothers to tell their children the ones we have selected, since they will shape their children's souls with stories much more than they shape their bodies by handling them. Many of the stories they tell now, however, must be thrown out.[95]

An additional way in which Crake is categorised as "mad, bad, dangerous scientist" is by identifying him as a gamer, and then by characterising the games that he and Jimmy play as themselves "mad, bad, dangerous". If Atwood's villains are, like Zenia, playing 'godgames', then the implication is that they play godgames to make others feel emotions such as pain or fear, so that they themselves can experience them; this picture does not fit the motivation the narrative suggests for Crake.[96] Tied into this discussion are a series of concerns about the rise of the Web and its effects, particularly on the young. Written before the change in internet use which is often described as "Web 2.0" — and which can be characterised by a shift in focus from a static internet to a participatory one, for example, in the shift from using Encyclopaedia Britannica Online to Wikipedia — *Oryx and Crake* includes fears that young people will be isolated by the internet, turned to violence by trashy media, and become

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[95] Plato, *Complete Works*, ed. by John M. Cooper and D.S. Hutchinson (Indianapolis, IN: Hackett, 1997), p. 1061 (The Republic II.377b-c).
[96] Martin Kuester, 'Genetic Games of a Retiring God: Atwood's "Divine Solution" in Oryx and Crake', *Zeitschrift Für Kanada-Studien*, 30.2 (2010), 76–86.

depraved thanks to exposure to pornography.[97] As I will show below, critics, particularly those writing before the release of *The Year of the Flood*, were influenced by these fears, but I will argue that the representation of games and the Web in *Oryx and Crake* are much more nuanced than this. These cultural artefacts supply two things that Glenn and Jimmy get nowhere else: friendship, and a cultural-historical education. Moreover, Atwood is not frightened of the connection between childhood and darkness; in numerous interviews she has pointed to the Grimms' *Fairy Tales* (1812, more properly *Children's and Household Tales*, *Kinder- und Hausmärchen*) as the book that has had the most influence on her.[98] *Pace* Plato, Atwood's novels show that the young need to be shown darkness as well as stories of virtue if they are to navigate the dark world into which they are born, as long as it is handled sensitively.[99] It is additionally interesting to note that Atwood reports making no changes to *Oryx and Crake* after 11 September, with one exception: 'I did not change tracks, but I changed a couple of the video games.'[100] The nature of these changes are unclear, but this indicates that the video games that Atwood presents are one of the features of the novel most responsive to the zeitgeist of the twenty-first century, and a primary site in which her critique of Anthropocene humanity resides. As with all technology in Atwood's view, games offer an ambivalent space, neither wholly positive or negative, in which to reflect on a human legacy of violence.[101] The representation of these games point to the importance of developing specifically technomoral forms of virtuous response to our current situation.

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[97] Macpherson, p. 79.

[98] *Once upon a Time: Myth, Fairy Tales and Legends in Margaret Atwood's Writings*, ed. by Sarah Appleton (Newcastle upon Tyne: Cambridge Scholars Publishing, 2008), p. 3.

[99] In Andrew Tate, 'Natural Lore', *Third Way*, 33.7 (2010), 26–31, Atwood says "And, by the way, it's no good to tell a small child that there is no monster under the bed. It doesn't work. What you have to say is: Well, there is a monster under the bed but it's OK because we've made friends with him and he's not coming out tonight."

[100] Irene D'Souza and Margaret Atwood, 'Margaret Atwood Asks: Is This The Path We Want To Be On?', *Herizons Magazine*, 2004, p. 63 <http://www.herizons.ca/node/180> [accessed 27 March 2018].

[101] This is demonstrated by Atwood's contribution to games such as *Zombies, Run!* which was written by Naomi Alderman, Atwood's protégé in the Rolex Mentor and Protégé Arts Initiative.

Both Jimmy and Crake come from broken homes and are trained by an education system that is equally broken. For Jimmy, school is a theatre and not a learning environment; that Crake succeeds in getting to a highly prestigious college run by a biotech company is in no small part because of his native genius, a status which is never really questioned in the novel. The narrow education that the children undergo, and that Snowman periodically relives in his hallucinated memories, offers them a limited and foreclosed future, with little emphasis on the interrogation of evidence or preparation for wider civic responsibility, instead training them for specific future careers — the Martha Graham Academy changes its motto from "Ars Longa, Vita Brevis" to "Our Students Graduate With Employable Skills". That this education is less than ideal points to a satirical, verging on a parodic, portrait of existing trends in education system in the Western world.[102] Jimmy's education in advertising at Martha Graham Academy is described as a joke, providing him with almost no prospects — though, it is also worth pointing out that one of his classmates, Amanda Payne, is actually quite successful as a conceptual artist. While Crake's education takes place at the prestigious Watson-Crick Institute, he too has been fed into a narrow system that limits his options. The education system has failed the two boys as much as their own families have; in place of this, the Web provides them with lessons in history (such as the wars between the Byzantines and the Petchenegs) and in palaeontology (learning the descriptions and traits of extinct species); it exposes them to great literature, such as Shakespeare's *Macbeth* (circa 1606), and teaches them to evaluate the relative merits of great works of art and architecture (though this in a somewhat limited way).

Anna K., a 'self-styled installation artist', is responsible for Jimmy's exposure to Shakespeare, which she reads 'while sitting on the can with her retro-look bell-bottom jeans

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[102] Tate, *Apocalyptic*, p. 71, describes it as a 'caricature of contemporary attitudes to art', and terms the new motto a 'faintly desperate strapline'.

around her ankles'.[103] While Atwood owes a profound debt of thought to Shakespeare, she does not suffer from bardolatry, as her portrayal of Felix Phillips, the disgraced artistic director of the Makeshiweg Fesitval in *Hag-Seed* (2016), suggests.[104] Snowman's narrative voice intrudes on his memories of this scene with a nostalgic reflection on Anna's performance: 'She was a terrible ham, but Snowman has always been grateful to her because she'd been a doorway of sorts. Think what he might not have known if it hadn't been for her. Think of the words. *Sere*, for instance. *Incarnadine*.' Notably these are words for dry or withered vegetation and staining the seas red with blood, words which bring the catastrophe of *Macbeth*, the murder of the natural order, into conjunction with the narrative of *Oryx and Crake*.[105] In an interesting echo of Jimmy's discovery of *Macbeth*, in *The Happy Zombie Sunrise Home*, Clio quotes some lines to Okie:

> "By the pricking of my thumbs," I said, "something wicked this way comes."
> […] It was a playful quotation from *Macbeth*, but the young don't read Shakespeare these days, so Okie didn't pick it up. […] "Don't creep me out, Grandma," she said. "My mom's bad enough."[106]

Okie, schooled in the conventional way, misses the *Macbeth* reference, and Jimmy, whose idiosyncratic education derives from the Web, gets it. Barzilai reads *Oryx and Crake* as profoundly influenced by *Hamlet*, with Crake sweeping to his revenge, and Atwood's interest in *The Tempest*, displayed in *Hag-Seed*, suggest that we can identify Crake with the figure of Prospero, castigating wayward humanity to bring it back into balance — Raschke is one critic

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[103] Margaret Atwood, *Oryx*, p. 97.

[104] Margaret Atwood, *Hag-Seed* (London: Hogarth, 2016).

[105] Gabriel Egan writes, in *Green Shakespeare: From Ecopolitics to Ecocriticism* (London: Routledge, 2006), p. 84, on this point that 'the play is endlessly concerned with what humans and plants have in common'. Given the number of parallels drawn in the trilogy between animals and plants (such as the ChickieNob), this is a suggestive insight.

[106] Margaret Atwood and Naomi Alderman, 'The Happy Zombie Sunrise Home', *Wattpad*, 2012, chap. 11 <http://www.wattpad.com/story/2426517-the-happy-zombie-sunrise-home> [accessed 25 May 2014].

who identifies *The Tempest* in the intertextual references of the *MaddAddam* trilogy.[107] But

Jimmy, and Snowman also, it is implied in this passage, can be more closely aligned to what

A.C. Bradley called 'the horrified memory of guilt' in *Macbeth*.[108]

Atwood's narrative does not draw on populist fears about the Web, which typically

focus on grooming of potential victims, absorption in a fantasy world at the expense of

personal relationships, and a loss of sensitivity to violence.[109] Increasingly there has been

more focus on physical health risks associated with sitting for prolonged periods.[110] The

games that Crake and Jimmy play are not those regularly associated with the violence to

which these fears refer, namely Massively Multiplayer Online Roleplaying Games

(MMORPG) and First-Person Shooters (FPS); they are neither fully immersive, requiring

Crake and Jimmy to take on alternate identities in the form of avatars — though at least

Extinctathon requires the use of an alias — nor do they require the players to perform acts of

violence against individual characters within the games, which is the underlying rationale for

the theorised increase in violent behaviour for players in real life. In any case, scientists

working on this issue have failed to come to a consensus regarding the validity of these fears,

and as Atwood has stressed numerous times, in these novels in particular she insists on

scientific accuracy; by way of example, several recent studies show no causal relationship

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[107] Debrah Raschke, 'Margaret Atwood's MaddAddam Trilogy: Postmodernism, Apocalypse, and Rapture', *Studies in Canadian Literature/Études En Littérature Canadienne*, 39.2 (2014), p. 38.

[108] A.C. Bradley, *Shakespearian Tragedy* (London: Penguin, 1904), pp. 30–31.

[109] For examples of populist fears, see Rachel Reilly, 'Are Video Games Bad for Your Health?', *Mail Online*, 2013 <http://www.dailymail.co.uk/sciencetech/article-2479022/Are-video-games-bad-health.html> [accessed 1 November 2014]; Rachel Reilly, 'Violent Video Games Makes Children Grow up into Aggressive Teenagers', *Mail Online*, 2014 <http://www.dailymail.co.uk/sciencetech/article-2588864/Violent-video-games-makes-children-grow-aggressive-adults-study-claims.html> [accessed 1 November 2014].

[110] Atwood has her own take on this phenomenon in Bethune, 'Atwood Apocalyptic', p. 46: "You know," she smiles, "there are studies that indicate corn-based stuff tells the body to put on more fat. And about 70 per cent of the U.S. is somewhat overweight. I'm thinking of writing a new scary dystopia called Waddle, about fast-running alien predators and people who can't get away from them."

between violent video games and increased violent behaviour in children who play them.[111] Moreover, if Crake is thoroughly desensitized to the violence by consumption of these forms of media, the question of why Jimmy should be so keenly sensitized to the violence he experiences remains unanswered. Though he perceives the news broadcasts concerning Crake's plague as if they were films, this distinction does not prevent him from feeling their horror; even fuelling his alcoholism and his drug addictions cannot distract him. These types of violent media have given him a set of conventions about portrayal and reception, but they do not desensitize him; indeed, the real-world nature of these depicted events frustrates the conventions that Jimmy has absorbed and internalised.

The two games to which critics refer most often, Blood and Roses and Extinctathon, do not depend on conducting violence, or indulging violent acts. They are both games about records of past human violence. Indeed, Phillips argues that 'Atwood herself seems remarkably nonjudgemental. She describes the violent nature of several of the computer games in scandalous detail, and her bemused tone never falters.'[112] *Oryx and Crake* names several games: Extinctathon, Three-Dimensional Waco, Barbarian Stomp, Kwiktime Osama, Blood and Roses. *MaddAddam* adds Intestinal Parasites. Some reviewers, such as Niall Harrison, found the games compelling, particularly Blood and Roses which is the most charismatic of the games.[113]

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[111] See for instance Maria von Salisch and others, 'Preference for Violent Electronic Games and Aggressive Behavior among Children: The Beginning of the Downward Spiral?', *Media Psychology*, 14.3 (2011), 233–58; Christopher J. Ferguson and Cheryl K. Olson, 'Video Game Violence Use Among "Vulnerable" Populations: The Impact of Violent Games on Deliquency and Bullying Among Children with Clinically Elevate Depression or Attention Deficit Symptoms', *Journal of Youth and Adolescence*, 43.1 (2014), 127–36; Christopher J. Ferguson and others, 'Not Worth the Fuss After All? Cross-Sectional and Prospective Data on Violent Video Game Influences on Aggression, Visuospatial Cognition and Mathematics Ability in a Sample of Youth', *Journal of Youth and Adolescence*, 42.1 (2013), 109–22.

[112] Dana Phillips, 'Collapse, Resilience, Stability and Sustainability in Margaret Atwood's *MaddAddam* Trilogy', in *Literature and Sustainability*, Concept, Text and Culture (Manchester University Press, 2017), pp. 139–58 (p. 153) <http://www.jstor.org/stable/j.ctt1wn0s7q.14> [accessed 8 January 2018].

[113] Niall Harrison, 'Oryx and Crake', *Livejournal*, 2003, para. 7 <https://coalescent.livejournal.com/23015.html> [accessed 21 January 2018].

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. Massacres, genocides, that sort of thing. The Roses side played with human achievements. Artworks, scientific breakthroughs, stellar works of architecture, helpful inventions. *Monuments to the soul's magnificence*, they were called in the game.[114]

There is a question over how close this game actually is to Monopoly — it seems unlikely that Elizabeth Magie Phillips would have recognised *The Landlord's Game* from this description of the rules or its content, though perhaps, if she were in a position to understand its social critique, she would see a similarity.[115] Atwood also used Monopoly as the basis for "Life Decisions", a game to train young women the art of bartering sexually-pure brides and grooms in "Freeforall".[116] The rhetorical effect of these rules takes the 'basic idea of a human history predicated on violence and extends it across all areas of human achievement.'[117] Critics have been struck by the game's pessimistic 'procedural rhetoric', and Bouson sees this in particular as presaging 'Crake's later successful attempts to change human history'.[118] Lobo suggest that Blood and Roses implicates the culture implicitly defended by such literary critics as failing —

It constitutes, for humanists, an impossible choice between an atrocity that should be unequivocally opposed, and a masterpiece that should be unequivocally cherished. The trick is that, in history, you don't get one without the other. Thus Jimmy's dream amounts to a chilling visualization of

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[114] Margaret Atwood, *Oryx*, pp. 89–91.

[115] Philip E. Orbanes, *Monopoly: The World's Most Famous Game and How It Got That Way* (Cambridge, MA: De Capo Press, 2006), p. 10.

[116] Margaret Atwood, 'Freeforall', in *Northern Suns: The New Anthology of Canadian Science Fiction*, ed. by David G. Hartwell and Glenn Grant (New York, NY: Tor, 1999), pp. 17–24 (pp. 21–22).

[117] Gerry Canavan, 'Hope, But Not for Us: Ecological Science Fiction and the End of the World in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*', *Lit: Literature Interpretation Theory*, 23.2 (2012), 138–59 (p. 143).

[118] Lobo, p. 53; Bouson, 'Game', pp. 143–44.

Benjamin's maxim: that every achievement of culture is also a record of barbarism.[119]

The game is revisited in *MaddAddam*, where two characters who latterly become bioterrorists play a game with one another. Zeb plays the Blood side, and Crake the Roses:

> [Zeb] concentrated on the Blood part of Blood and Roses: eradicating the population of ancient Carthage and sowing the land with salt, enslaving the Belgian Congo, and murdering firstborn Egyptian babies.
>
> Though why stop at firstborns? Some atrocities turned up by the virtual Blood and Roses dictated that the babies be tossed into the air and skewered on swords; others, that they be thrown into furnaces; yet others, that their brains be dashed out against stone walls. "Trade you a thousand babies for the Palace of Versailles and the Lincoln Memorial," he said to Glenn.
>
> "No deal," said Glenn. "Unless you throw in Hiroshima."
>
> "That's outrageous! You want these babies to die in agony?"
>
> "They aren't real babies. It's a game. So they die, and the Inca Empire gets preserved. With all that cool gold art."
>
> "Then kiss the babies goodbye," said Zeb. "Heartless little bugger, aren't you? Splat. There. Gone. And by the way, I'm cashing in my Wildcard Joker points to blow up the Lincoln Memorial."
>
> "Who cares?" said Glenn. "I've still got the Palace of Versailles, plus the Incas. Anyway, there's too many babies. They make a huge carbon footprint."[120]

This playthrough shows the force of the identification that Lobo, Canavan, and Philips make between documents of civilization and barbarism. It is easy to think of the Roses player as the "good" side and the Blood player as the "evil" side, but this exchange suggests that it is the

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[119] Lobo, pp. 53–54; Canavan, p. 153 also notes the connection to Benjamin, and Philips further argues that '[i]t marries the admiration of monuments beloved by affirmative culture with the levelling strictures of demystifying cultural critique, and thus it might offer something to the Matthew Arnold as well as the Theodor Adorno or the Walter Benjamin in each of us.' .

[120] Margaret Atwood, *MaddAddam* (London: Virago, 2014), pp. 289–90.

Blood player who must try to save lives by negotiating the destruction of monuments to the soul's magnificence. It is the Roses, who, it seems in this description, must preserve cultural artefacts at the cost of human lives. This is somewhat different from the original description of the game, which suggests that both Blood and Roses players want to acquire the cultural artefacts, but that they must trade differently to get them.[121] Incidentally, the Lincoln Memorial is blown up in *Oryx and Crake* by a group of anti-Happicuppa fanatics, killing five 'Japanese schoolkids that were a part of a Tour of Democracy. *Stop the Hipocrissy*, read the note left at a safe distance.'[122] As it appears in this passage, the game works primarily by emotional appeals between the two players, rather than by any kind of internal game logic. I have already mentioned Atwood's "The Loneliness of the Military Historian", which recounts just such horrors perpetrated against women and babies as facts of history that must be recognised and understood in the Terentian fashion. However, Zeb's early plays conflate historical violence, such as the destruction of Carthage, with apocalyptic biblical violence, the death of the Egyptian firstborn — it is not clear whether the "thousand babies" are these firstborn, or another unfortunate group of infants.[123] The phrasing of the second paragraph is significant, because it creates two layers of responsibility: 'Some atrocities turned up by the virtual Blood and Roses dictated that [...]'. This has the effect of suggesting that Blood and Roses is responsible for the atrocities, when in fact Blood and Roses merely makes historic human atrocities visible to the players. James Berger, in *After The End*, characterises Hiroshima, one of the events Crake tries to trade for in this passage, as an apocalyptic event, an 'absolute break' with the past, as a catastrophe 'bearing some enormous or ultimate meaning.' Along with the Holocaust, it is one of 'originary revelations of the contemporary

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[121] Margaret Atwood, *Oryx*, pp. 89–91.

[122] Margaret Atwood, *Oryx*, p. 212.

[123] An alternate reading of the "murder of the Egyptian firstborn" may actually refer to the Massacre of the Innocents by King Herod, though recent research suggests that this may not have been a historical event.

world'.[124] So although the opening description links the game to apocalyptic logic, the reference to Hiroshima suggests that the game is, in fact, a bearer of post-apocalyptic remains. This limits the game's potential for foreshadowing Crake's use of the JUVE plague, because it suggests that human violence is continuous, rather than apocalyptic. However, in a move that I will explore later in the chapter but will note for the sake of convenience here, Crake indicates a deep green sentiment at the end of the passage, a sentiment which is present from *Oryx and Crake* but which is much more overtly expressed in *MaddAddam*.

The acknowledgement of human violence in Blood and Roses takes a different course in Extinctathon. However, critical treatment of Extinctathon, a version of twenty questions in which all the answers must be extinct species, shows that the discourse surrounding the representation of games in the texts is far from neutral.

> In their safely managed environment in the compound, Jimmy/Snowman and Crake/Glenn play Extinctathon, a game operating on the narrative rules of kill 'em and destroy 'em games, and which allows them gradually, albeit virtually, to kill off all "strange," other species, without repercussions, without punishment, and without engagement with reality. Meanwhile, beyond their hothouse game world, larger scale games are played with tyrannical, technologically controlled scientific experiments, notable for their total lack of concern for the precious ecological balance or for the importance of morality, ethics, sustainability, and the continuity of diversity.[125]

By no means the only example, this kind of reading is a significant misprision.[126] Rhetorical flourishes aside, Extinctathon is not a game which involves killing things — to read it as such

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[124] James Berger, *After The End: Representations of the Post-Apocalypse* (Minneapolis, MN: University of Minnesota Press, 1999), pp. xii, 4.

[125] Gina Wisker, 'Imagining Beyond Extinctathon: Indigenous Knowledge, Survival, Speculation – Margaret Atwood's and Ann Patchett's Eco-Gothic', *Contemporary Women's Writing*, 2017, p. 9 <https://doi.org/10.1093/cwwrit/vpx019>.

[126] Further examples include Helen E. Mundler, 'Heritage, Pseudo-Heritage, and Survival in a Spurious Wor(l)d: *Oryx and Crake* by Margaret Atwood.', *Commonwealth Essays and Studies*, 27.1 (2004), 89–98; Bouson, 'Game', p. 144.

is to fundamentally misread the critique involved. It is a game about a list of things which human beings have already killed, a litany for the dead, a remembrance of things past and gone, and an evocation of Bradley's 'horrified memory of guilt'. In this passage, Gina Wisker portrays Extinctathon as a game of active slaughter, one which can be connected to wider trends of science in society, practised without reference to sustainability and ethics, with the implication that Crake represents the apotheosis of this view — J. Paul Narkunas expresses this as suggesting that Crake is 'taking Extinctathon to the final level, where humans wilfully usher in their annihilation.'[127] Narkunas uses terms like "final level" loosely here, as he refers to a game which has no levels; the extinction of *H. sapiens* is no different to the extinction of any other species in the Extinctathon list, and does not mark the culmination of anything, within the frame of the game. One of the interesting features of the trilogy is that Atwood uses later instalments to intervene in the reception of her inventions in previous books, and Extinctathon provides one key example of this: in *The Year of the Flood* Atwood has Ren ask Jimmy what he and Crake spend their time doing; as part of this, Ren states that 'Extinctathon was a trivia game you played with extinct animals', which distinguishes it from Barbarian Stomp ('a war game') and Blood and Roses ('like Monopoly, only you had to corner the genocide and atrocity market').[128] If Blood and Roses recounts the history of human violence against other humans, Extinctathon shows the "war against animals".[129] Extinctathon implicitly shows human beings to be unsustainable, excessive, incapable of temperance, and Crake, as he becomes a Grandmaster of the game, comes to see the widespread implications of that Malthusian critique. Barzilai positions Crake as a modern day

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[127] J. Paul Narkunas, 'Between Words, Numbers, and Things: Transgenics and Other Objects of Life in Margaret Atwood's *MaddAddam*', *Critique: Studies in Contemporary Fiction*, 56.1 (2015), 1–25 (p. 17) <https://doi.org/10.1080/00111619.2013.849226>.

[128] Margaret Atwood, *The Year of the Flood* (London: Virago, 2010), p. 264.

[129] For an extensive account of how such human action can be conceived of as a war, see Dinesh Wadiwel, *The War Against Animals* (Leiden: Brill Rodolphi, 2015).

Hamlet, avenging his father's unnatural murder. When he adopts the name of an extinct species as his moniker, however, he becomes a larger symbol of revenge for the unnatural crime of the Anthropocene: mass-extinction.

Crake is gifted at games like these because 'you had to see where you were headed before you got there, but also where the other guy was headed. Crake was good at those games because he was a master of the sideways leap.'[130] To win these games, Crake has to adopt a speculative fiction view, which extrapolates the direction in which things are heading. In responding to these games as if they were monstrous — exercises in psychopathy or sociopathy which train Jimmy and Crake to be cruel and vicious — we fail to pick up on this crucial re-statement of Atwood's speculative purpose, as outlined in the introduction. These games identify trends in history which have existed, and do exist. The intellectual honesty that Sharon identifies in Crake, the willingness to follow thoughts through to their conclusion, is tied up with the ability to see the salient features of the present and the ways in which they might manifest themselves in the future. The novel's structure, with its characteristic Atwoodian flashbacks across fifteen chapters, encourages us to link the past and the future, to perform exactly the kind of analysis that these games help to clarify: it encourages us to make the sideways leap between the dystopian future we're offered in the novels and our own society.

We can see this more clearly in a game which the characters play that is shorn of overtly catastrophic historical detail: in all three books in the trilogy, chess plays an important role, as both a shorthand to characterise intelligence, but more importantly to express friendship and collaboration. In Atwood's early poem, "An Attempted Solution for Chess Problems", in *Circle Game* (1964), the speaker plays chess with her sister. She perceives her

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[130] Margaret Atwood, *Oryx*, p. 44.

sister as thinking through the 'arrangement of her empire', 'obsessed by history'.[131] This

figuration of the chess player is evoked for Crake, and this is another way in which Crake is

identified as Haynes' "unemotional scientist". However, what we learn about Crake as a

chess player across the novels is that for Crake the game is not about the discovery of history,

or the acquisition or ordering of empire — in fact, Crake shows no interest in acquisition at

all.

For Crake, chess is a game that connects him to others, to both kith and kin. While his

status as a chess player once again marks Crake out as a figure capable of following

arguments through to their conclusions, it is also the way in which Crake's relationships are

disclosed.[132] One of the only things that we know about Crake's father is that he taught Crake

to play chess, and he plays chess with people who are significant to him — Jimmy, Pilar, and

Zeb.[133] While Crake and Jimmy play on computers facing away from each other — which

critics have read as a sign of his disconnection — in the versions of his childhood depicted in

later novels, Crake frequently plays chess with physical chess pieces facing his opponents.

When Jimmy and Crake discuss this, Jimmy wants to know why they don't play with real,

plastic pieces.[134] The fact that the real set should be plastic is interesting; it connects to the

environmental critique of the novel in which humanity is always spewing out plastic junk, but

also opens a Baudrilliardian moment where the real is in question. Crake's response, that the

real board is in your head, is decried by Jimmy as bogus, a word that they have started to use

on each other to 'tear each other down for being pompous'.[135] But rather than pomposity, this

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[131] Ronald B. Hatch, 'Margaret Atwood, the Land, and Ecology', in *Margaret Atwood: Works and Impact*, ed. by Reingard M. Nischik (Toronto, ON: House of Anansi Press, 2000), p. 182. Hatch argues that the sister 'embodies a rationalist or Enlightenment view in which order is paramount' which is contrasted with the natural world, 'resulting in a "stalemate" with "vestiges of black and white | rules on the green landscape".'

[132] There is some crossover here with the function of Scrabble in *The Handmaid's Tale*, which justifies the relationship between Offred and the Commander.

[133] Margaret Atwood, *Oryx*, p. 215.

[134] Margaret Atwood, *Oryx*, p. 88.

[135] Margaret Atwood, *Oryx*, p. 88.

may instead indicate that Crake is very good at chess; he is interested in complex variants such as three-dimensional chess, so it would not be a surprise to discover that Crake also plays blindfold chess which requires the player to visualise the board in their mind.[136] Jimmy and Crake play chess remotely to keep their friendship alive while they're at university; Crake tries to explain mathematical problems to Jimmy with the elegance of chess; Jimmy uses chess to deflect Crake's attention from his disappointing career.[137] Chess is, for Crake and Jimmy, one of the ways in which their friendship is most positively expressed. Importantly, while Jimmy is not Crake's equal, neither is he a bad player — in *The Year of the Flood*, it turns out they were playing three-dimensional chess all along.[138] As part of a wider argument about the degradation of the arts and pure sciences at the hands of new media, Lorraine York suggests that their chess playing is inauthentic:

> The note of inauthenticity is sounded again when Atwood describes Jimmy and Crake playing Internet chess; this ancient game of intellect is undercut by their ability to look up classic chess moves on the internet. "Comfort eyefood", the narrator calls such online diversions, and for Atwood, the link to intellectual junkfood is all too plain.[139]

But for players of chess this is perfectly normal behaviour — to play the game at high levels, as both Glenn and Jimmy evidently can, it is necessary to review past games, especially outside of a competition setting. Moreover, chess plays a larger role than this isolated function between Jimmy and Glenn, which gives the ancient game of intellect a wider valency in the trilogy, and I think rescues this section from the charge that it represents intellectual junkfood. York's reading is interesting because, in positioning their chess playing

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[136] Margaret Atwood, *Year*, p. 292.
[137] Margaret Atwood, *Oryx*, pp. 227, 204, 297.
[138] Margaret Atwood, *Year*, p. 264.
[139] Lorraine York, *Margaret Atwood and the Labour of Literary Celebrity* (Toronto, ON: University of Toronto Press, 2013), p. 189.

as inauthentic, it weakens readings that connect playing chess to Crake as "emotionless scientist"; either he's a brilliant isolated chess player, or he's a cheat.

But Crake is not the only chess player in the book, nor is he necessarily the strongest player. It is hinted that Pilar, Toby's mentor, fulfils this role. She leads the team with whom Glenn's father works; she is possibly the top-level infiltrator for the God's Gardeners inside HelthWyzer. While there, she plays in the chess club; later it is revealed she has been playing Glenn since he was five years old.[140] Glenn respects her, and works as courier to get her biopsies tested for cancer.[141] Chess also forms the centre-piece of one of the scenes in *The Year of the Flood* between Toby and Zeb, where they play chess to keep Zeb diverted during his recovery after an altercation. The set, very different from the plastic set Glenn, Pilar, and Zeb play with at HelthWyzer or the three-dimensional chess that Glenn and Jimmy play, is hand-carved in the form of bees and ants.

> The chess set was Pilar's: black was ants, white was bees; she'd carved it herself. "They used to think the queen of the bees was a king," Pilar said. "Since if you killed that bee, the rest lost their purpose. That's why the chess king doesn't move around much on the board — it's because the queen bee always stays inside the hive." Toby wasn't sure this was true: did the queen bee always stay inside the hive? Except for swarming, of course, and for nuptial flights […] She stared at the board, trying to see the pattern.[142]

This meditation on the mirroring of eusocial insects with the chess board is significant; Glenn reflects on a similar theme when talking to Ren:

> One day, he said that what you had to do in any adversarial situation was to kill the king, as in chess. I said people didn't have kings any more. He said he meant the centre of power, but today it wouldn't be a single person, it would be the technological connections.[143]

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140 Margaret Atwood, *MaddAddam*, p. 295.
141 Margaret Atwood, *Year*, pp. 290–92.
142 Margaret Atwood, *Year*, p. 132.
143 Margaret Atwood, *Year*, p. 271.

These two passages draw a parallel between Pilar and Crake, and reflect Crake's sentiment that it is only necessary to break the link between one generation and another, and the cycle of reproduction is broken for ever. With this chess set, the text raises the question of how parallel human beings and the eusocial insects actually are; the implication is that the swarming humans of the pre-Flood world may be no less biologically determined than the ants and bees. The eusocial insects have long served as a metaphor for good political and social functioning, including in the works of Aristotle where they are described as social animals like humans.[144] Alternatively, it may represent another tribute to the works of E.O. Wilson, who is the Gardener's saint of *Hymenoptera*, the order of insects that includes ants and bees.

Pilar uses the chess club as a way to smuggle dangerous bioforms out of her lab. In a game with Zeb, she switches out one of the white plastic bishops for a fake that holds six pills: two white, two red, two black. These are the seeds of what will become the JUVE virus; they appear to have been worked on by Crake's father, who is a specialist in diseases like Marburg virus and Ebola. He passes them onto Pilar before he is killed, who hands them on to Zeb. Zeb, with Adam One's blessing, hides the bishop inside an erotic novelty salt-grinder behind the bar of Scales and Tails:

> On a glass shelf behind the bar there was an array of novelty corkscrews, nutcrackers, and salt-and-peppers in the shapes of naked women. The arrangement of their parts was ingenious: […] the legs would open, the head would be screwed around, the salt or pepper would descend. Laughter all round. […] The white bishop had been inserted into the salt cavity of one of these iron maidens, a green lady with enamelled scales. Her head still turned, salt still came out from between her thighs, but the bartenders had been told that this one was fragile — no man was too keen to have his salty sex toy's

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[144] For fuller discussion, see Charlotte Sleigh, *Ant*, Kindle (London: Reaktion, 2003); and 'Political Bee' in Claire Preston, *Bee*, Kindle (London: Reaktion, 2006).

head come off in mid-screw — so they should use the others instead, on the occasions when salt was required.[145]

When Adam and Zeb's 'mutual parent' comes to Scales and Tails, Zeb takes the opportunity to slip him one of each colour of pill, which results in the Rev becoming "raspberry mousse", as the section heading has it. Adam sends the rest of the pills, still in the bishop, back to Pilar, who keeps hold of them until she can insert them inside the bishop of her new handcarved bee-and-ant themed set, where Toby and Zeb play with it. 'Toby has an image of it: Zeb in the shade, on a hazy afternoon. His arm. Her own hand, moving the white bishop, the death-carrier. Unknown to her then, like so much.'[146]

Finally, after Pilar dies, she wills the chess set to Glenn. Adam approves, and so Crake finally receives his father's legacy, and sets his plan into motion. Chess, "the ancient game of intellect" is thus one of the most significant ways for tracing the events of the *MaddAddam* trilogy, and unpicking the complicated connections between Crake, Adam One, Zeb, Pilar, and the rest of the God's Gardeners. In as much as the trilogy is a detective story or a thriller, where the reader is invited to try to solve the mystery of the crime that has been committed, games, often referred to in the critical literature for their potential foreshadowing, are actually an important 'vector' for the spread of the JUVE virus.[147]

The role of games in the trilogy, then, is not dissimilar to the role they have in real life — entertainment, education, and establishment and maintenance of relationships. As I have indicated, they draw in a wide range of discourses, and are frequently interpreted as having an important role in the symbolism of the text. While critics have been initially unsure about how valuable these games are, it is important that they play not just a thematic or symbolic role, but a central role in the plot as well. These games do not leave us with a portrait of

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[145] Margaret Atwood, *MaddAddam*, p. 364.
[146] Margaret Atwood, *MaddAddam*, p. 402.
[147] Bouson, 'Game', p. 141; Margaret Atwood, *MaddAddam*, p. 299.

Crake as an isolated chess champion, playing out a cosmic long-game, but reveal a community of chess players which includes characters who fall into the "word" part of the "word-number" spectrum, implicating all of the surviving humans in the destruction of the pre-Flood world.

Crake's Plan

In the two proceeding sections, I have argued that Crake has been misread in a way which can be identified with trends in reception of the figure of the scientist as outlined by Haynes. Fears about the excessive egos, about the hyper-rationalism, and about the instrumentalism of such figures have steered the critical reception of Crake. That critics initially hostile to Crake have come round to see him as more than a pantomime villain — and again, I cite Bouson as the paradigm case for this — suggests that a more complicated picture can now be brought into view. To achieve this, it will be necessary to look at Crake's thought in detail, and to try to pinpoint when in the narrative he decides that it is too late for the widespread adoption of technomoral virtue, and that the age of the Anthropocene needs to be halted. In treating Crake as a "mad, bad, dangerous scientist", critics have tended to treat him as Snowman does:

> Snowman has trouble thinking of Crake as Glenn, so thoroughly has Crake's later persona blotted out his earlier one. The Crake side of him must have been there from the beginning, thinks Snowman: there was never any real Glenn, *Glenn* was only a disguise. So in Snowman's reruns of the story, Crake is never Glenn, and never *Glenn-alias-Crake* or *Crake/Glenn* or *Glenn, later Crake*. He is always just Crake, pure and simple. Anyway *Crake* saves time, thinks Snowman. Why hyphenate, why parenthesize, unless absolutely necessary?[148]

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[148] Margaret Atwood, *Oryx*, p. 81.

But this view is that of Snowman alone. Characters in later novels, particularly Ren, Zeb, and Pilar, continue to call him Glenn, allowing more of this obscured persona to emerge. With the evidence of all three texts — in which Atwood responds to the early critical reception of Crake by emphasizing other aspects of his characterisation — we can see what takes Glenn from a childhood marred by violence through to his conclusions about human beings, and the actions he decides to take based on those conclusions. In this section I ask: What is Crake's plan? How did he come up with it? When did he come up with it? In doing so, I will need to refer extensively to the fabula (chronological order), as opposed to the syuzhet (narrative order), of Crake's life.[149] This process elucidates Crake's role in the ustopian logic of the text, and acts as the principle urge to temper our desires — the alternative is either death, or more radical change than many would accept.

In brief; Glenn and Jimmy are two years above Ren at HelthWyzer High — I interpret this as meaning that they are two years older than her. Ren is ten years old in the God's Gardener Year Ten, and remarks that her age will always be the same as the Gardener Year. This means that, at the time of the Flood, Ren is twenty-five and Crake and Jimmy are twenty-seven. The first incident we learn of in Crake's life is his joining the chess club run by Pilar at age five, which must be in about Gardener Year Three.[150] If we assume that he hasn't determined his whole plan from birth, then he must acquire the motivation after learning chess from his father and Pilar, and at least seven years before Year Twenty-Five, which is the amount of time it took to develop the Crakers.

This shows that Glenn perceives the threat to the ecosystem as overwhelming very early on. Crake does not see *H. sapiens* as uniquely privileged productions of evolution, over

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[149] For further elucidation of this, see Appendix 5, which lays out Crake's life chronologically as it relates to his plan to unleash JUVE.

[150] There is a discrepancy here; in *The Year of the Flood* the rhyme taught to the Gardener children suggests that Pilar was already living at the Edencliff Rooftop as one of the Gardeners in Year Three – Ren herself arrives in Year Seven, when Pilar is an established figure.

and above other kinds of non-human animals: 'Crake had no very high opinion of human ingenuity, despite the large amount of it that he himself possessed.'[151] In this, he resembles Charles Darwin, who, in the *Origin of Species* (1851) 'attempts to subdue the hierarchical nature of man's thought which places himself always at the pinnacle or centre.'[152] Whether this is due to Pilar's influence is unclear, but in his early conversations with Zeb — assuming that Zeb's reporting of events can be trusted — over games of Blood and Roses and chess, Glenn is concerned about the massive carbon footprint of his society, and what steps might be necessary to stop the destruction of the entire biosphere. I assume at this point that this is largely hypothetical; as a child, Glenn has no personal motivation to pursue a violent course of action, and he also lacks the means.

I see the transformational event which hardens these views as the murder of Glenn's father. Crake says 'He was head in the clouds. [sic] He believed in contributing to the improvement of the human lot.'[153] Crake's father — who remains unnamed, like Jimmy's father — plans to out HelthWyzer's scheme to farm profits from the ill by reinfecting them by leaking it onto the web (a means of whistleblowing that has become increasingly popular, as notable in the rise of Wikileaks), but he is killed before he can disclose his findings. Crake's father thus tries to expose the corporate society which he is a part of, and force it to change by non-violent methods. These attempts fail and are brutally put down by the CorpSeCorps. Discovering the depth of corruption which sustains his own life in the Compounds and the involvement of Rhoda and Uncle Pete, it seems that Crake must resolve on an extreme course at this point. This combines with his deep green views to suggest that only the alteration of human beings to prevent this kind of acquisitive drive and motivated

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[151] Margaret Atwood, *Oryx*, p. 114.
[152] Gillian Beer, *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction* (London: Ark, 1985), p. 60.
[153] Margaret Atwood, *Oryx*, p. 215.

duplicity will succeed at altering society, and this will involve breaking the link between one generation and the next, or the extinction of *H. sapiens* and the rise of a neo-human form of life. In pursuing this course, I see Crake as acting with "dirty hands" — that is, he makes a morally abhorrent but necessary choice, given the alternatives.[154] However, it seems his thinking about this idea shifts over time, as his fridge magnets make clear. Like Vials, I posit that Crake's plan is an evolving commitment.[155] He is exposed as a child to the views of peaceful protesters, and to those living in alternative spaces and by alternative values; he is involved in direct action aimed at breaking the mechanisms of the technological society, and only after all this does his plan come into effect. Nor does he seem emotionally unaffected by this idea; Snowman later interprets Crake's screams to be him viewing the results of his plan in his dreams. Another important thing that examining Crake's fabula reveals is that Crake murders his mother and his step-father — this is an aspect that has gone largely unremarked on by critics who see this as overshadowed by his wiping out of the human species.

Looking at Crake's plan in this way — as an evolving radical commitment over time — also shows a number of readings of the BlyssPluss pills to be problematic. Several critics read Crake as the exemplary capitalist, the culmination of the market logic of the Compounds, and their best son. For instance, DiMarco:

> Crake […] makes the bio-plague, in the form of BlyssPluss, for profit, although he is fairly silent on this fact, making it possible for others like Jimmy to mistakenly interpret his work as "culture" work. Not until Jimmy

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[154] The problem of dirty hands was conceived as such by Michael Walzer, 'Political Action: The Problem of Dirty Hands', *Philosophy & Public Affairs*, 2.2 (1973), 160–80; for how this problem operates within Aristotelian virtue ethics, see Michael Stocker, 'Dirty Hands and Conflicts of Values and of Desires in Aristotle's Ethics', in *Plural and Conflicting Values* (Oxford: Oxford University Press, 1992), pp. 51–84 <https://doi.org/10.1093/0198240554.001.0001>; and Lisa Tessman, *Burdened Virtues: Virtue Ethics for Liberatory Struggles* (Oxford: OUP, 2005), p. 110 also considers it with regard to burdened virtues and the character of political resisters.

[155] Chris Vials, 'Margaret Atwood's Dystopic Fiction and the Contradictions of Neoliberal Freedom', *Textual Practice*, 29.2 (2015), 235–54 (p. 238) <https://doi.org/10.1080/0950236X.2014.993518>.

receives a phone call during the actual outbreak does he realize that Crake has serious financial investors.[156]

This ignores the fact that in the two sections detailing Crake's recruitment of Jimmy, Crake is at some pains to get Jimmy on board with a strongly capitalist incentive:

"But think of the R&D budget."

"Millions?"

"Mega-millions."[157]

So Crake is fairly vocal about the profit motive. He is the runner between the Paradice Dome and the Rejoov top brass: 'They were a greedy bunch, nervous about their investment.'[158] During the previous visit that Jimmy had paid Crake at Watson-Crick, Jimmy got bored of Crake repeatedly pointing out how much money the students will make. Like the transhumanists examined in the first chapter, one of the main draws of Crake's promise of "immortality" is that it is also extremely remunerative. But this is belied by Crake's aim; as the table in Appendix 5 indicates, by this point, Crake has already rejected capitalist ends; he manipulates the desire for money to further his real aims. It would be truly insane to spend seven years working on a complex project that will make "mega-millions" only to totally annihilate the market for such a product, so we must discount that as Crake's motivation.

However, Crake's plan does utilise the profit motivations of others to succeed: the BlyssPluss Pill and the Craker floor models are designed and made in a corporate environment, requiring huge resources. In order to work, this plan is parasitic upon capitalist logic. The 'tides of human desire' which will sweep aside the 'crank religions' will ensure that the BlyssPluss Pill and the Crakers will generate a huge amount of money — 'it would

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[156] Danette DiMarco, 'Paradice Lost, Paradise Regained: Homo Faber and the Makings of a New Beginning in *Oryx and Crake*', *Papers on Language and Literature*, 41.2 (2005), 170–95 (p. 183).

[157] Margaret Atwood, *Oryx*, p. 345.

[158] Margaret Atwood, *Oryx*, p. 357.

be the must-have pill, in every country'.[159] It is this which gets RejoovenEsense's attention. In order for the plan to continue, it is necessary for Crake to enlist the resources of these corporate giants, and hence it is necessary to promise them profit. It is clear, however, that Crake never sees profit as the goal, only a means to manipulate the capitalist overlords of the Compounds — his plan is not to sell repeat prescriptions against long-term diseases, like HelthWyzer, but to stop capitalism completely. Sheckels makes a similar misstep, when suggesting that the disease is incidental, a mistake, or, as Wisker put it, a 'side effect':

> He [Crake] and Oryx will create a new Eden, as well as a new better race of humanoid creatures; but they will also play a role in the pharmaceutical plot to infect the developing world before saving the developed and making a huge profit. When the latter plan runs horribly amok, Crake ends up not as a rescuer of humankind but as its destroyer.'[160]

The evidence in the text marshals against the idea of Crake's plague being "mistakenly" released, or mistakenly spreading to the developed world against Crake's 'benign intentions'.[161] It is spread purposively to every corner of the globe so that it spreads universally in interlocking waves, without regard for "huge profits".

Finally, Glover, among others, thinks that Crake's plan fails because Jimmy survives.[162] Untainted, natural humanity lives on in Snowman, undoing Crake's attempt to break the chain. Through him, the Crakers develop storytelling, and apparently religious practices. But

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[159] Margaret Atwood, *Oryx*, p. 348. There is disagreement about the attractiveness of this pill. Grayson Cooke, 'Technics and the Human at Zero-Hour: Margaret Atwood's *Oryx and Crake*', *Studies in Canadian Literature*, 31.2 (2006), 63–83 (pp. 73–74) argues that BlyssPluss offers all the temptations presented so effectively by spam email to entrap the unwary; Mundler, p. 93 disagrees: 'Could one person, even at the head of a powerful corporation, destroy almost the entire world population with a glorified food supplement? If the answer is no, and the scenario is more far-fetched than disturbing, then the label "speculative fiction" loses its power.'

[160] Wisker, p. 9; Theodore F. Sheckels, 'No Princes Here: Male Characters in Margaret Atwood's Fiction', in *Once upon a Time: Myth, Fairy Tales and Legends in Margaret Atwood's Writings*, ed. by Sarah Appleton (Newcastle upon Tyne: Cambridge Scholars Publishing, 2008), pp. 115–26 (pp. 117–18).

[161] Susan M. Squier, 'A Tale Meant to Inform, Not to Amuse', ed. by Margaret Atwood, *Science*, 302.5648 (2003), 1154–55 (p. 1155).

[162] Glover, p. 58.

to argue that Crake cannot have known that this would happen is surely implausible. Having been Jimmy's friend since childhood, Crake knows him well: his motives, his behaviour, his characteristic turns of phrase. When Crake charges him with looking after the Crakers, Crake must do so knowing that Jimmy will honour the request. Jimmy's mother and Oryx both exhort Jimmy with the phrase "Don't let me down"; Crake uses as parallel expression: "I'm counting on you". There is more to their friendship than manipulation or exploitation. Where Crake's plan fails is in the wider survival of human beings, particularly the Painballers. Crake knows about the existence of the God's Gardeners, their beliefs, and their survivalist practices, so he must know they will avoid the BlyssPluss pill, and be prepared for the chaos of the societal breakdown. Their survival may not be a problem; if their ecological dedication saves them from the Flood, they may be permitted to live on, sustainably. All of this is pure speculation; there is no evidence in the trilogy for what the broader or longer term view of the Crakers is supposed to be. It may be that, as a good student of Darwin, Crake only wants to "reboot" — in Gutiérrez-Jones's terms, and with the implication of suicide that entails[163] — humanity so that it will come to be in dynamic balance with its environment. Once this is achieved, the forces of evolution can acts as they will, because human beings will not be crushing the life out of the whole planet. Seen this way, it is a singular intervention.

Interrogating Crake's plan has the effect of opening an important question raised by the critical literature, which is to what extent can Crake be understood as a terrorist, that prominent figure of the twenty-first century. I interpret such figures as symbols opposing societal excess; but, rather than providing a balanced response, they go from the excessively greedy to the fanatically Puritanical, equally a vice in virtue ethics terms. Connecting the

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[163] Carlos Gutiérrez-Jones, *Suicide and Contemporary Science Fiction* (New York, NY: CUP, 2015), p. 1.

terrorist of the twenty-first century to the anarchist of the nineteenth and early twentieth-

centuries, Grayson Cooke reads Crake as specifically a 'bioterrorist',

> a *pharmakeus* who leads all who follow him into opposition with themselves.
> He works within the system of the corporates, but maintains an unpredictable
> streak of calculating anarchy that allows him to be both inside and outside,
> poison and cure at the same time.[164]

As is widely noted in the critical literature, Atwood had to pause in writing *Oryx and Crake*

because of the events of September 11. Early sections of the book had been written in

Arnheimland, and on a boat in the Arctic, where Atwood was watching how quickly the

glaciers were receding. Sitting in the Toronto airport, waiting to fly to New York for the

paperback publication of *The Blind Assassin* and daydreaming about part 8, the section in

which Crake outlines his hypothetical scenario for the extinction of the human species, her

flight was cancelled because of the September 11 attacks.[165] Critics see this attack as

exacerbating a period of 'liminal condition' in Western culture, made more radical by the

'encounter with terrorism and the experience of counter terrorism', which is reflected in the

ambiguity of Atwood's heightened reflection of our society in the pre-Flood world.[166] Korte

notes that there was an additional terrorist attack which more directly motivated this hiatus,

quoting Atwood in an interview: 'Real life was getting creepily too close to my intentions —

not so much the Twin Towers as the anthrax scare. That turned out to be limited in extent, but

only because of the limitations of the agent used.'[167] The anthrax attacks against two US

politicians and a number of newspapers are, at the time of writing, attributed to 'skilled

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[164] Grayson Cooke, pp. 72–73.

[165] Margaret Atwood, 'Perfect Storms: Writing Oryx and Crake', *Oryxandcrake.Co.Uk*, 2003, para. 6
<http://www.oryxandcrake.co.uk/perfectstorm.asp> [accessed 4 August 2014].

[166] Richard Gray, *After The Fall: American Literature Since 9/11* (Chichester: Wiley-Blackwell, 2011),
p. 18.

[167] Barbara Korte, 'Fundamentalism and the End: A Reading of Margaret Atwood's Oryx and Crake in
the Context of Last Man Fiction', in *Literary Encounters of Fundamentalism: A Case Book*, ed. by
Klaus Stierstorfer and Annette Kern-Stähler (Heidelberg: Universitatsverlag Winter, 2008), pp. 151–
63 (p. 157), n.21.

microbiologist' Bruce E. Ivins, though some of the evidence is still held under seal and is not in the public domain.[168] These attacks took place a week after September 11, and are thematically much closer to the concerns of *Oryx and Crake*, based in the terror of contagion directed towards human ends. In trying to understand the fundamentalisms that drive these attacks, Korte suggests that the primary target, for which these instances are proxies, is modernity.[169] Fundamentalists are opposed to modernity and the trilogy includes a significant streak of the anti-modern, but the genre of Last Man stories, of which Korte reads *Oryx and Crake* as an example, also has a hostility to fanaticism, which it equates with totalitarianism and a 'blindness to human needs'. In Korte's view, 'Atwood identifies fundamentalism as a prime evil of the contemporary world.'[170]

Korte notes that in the novel non-violent protest and non-capitalist alternative projects fail to make any impact in addressing the flaws in the societal system Atwood displays in *Oryx and Crake*; they only begin to get traction when the protesters turn militant.[171] Equally, however, Korte argues that protesters are not portrayed in a sympathetic light, highlighting the depiction of the fundamentalist vegan, Bernice, and Jimmy's mother, Sharon, as two cases where fundamentalist motivation seems to preclude enlisting the reader's empathy. To return to a topic mentioned in Chapter 3, traditional animal activism, such as the liberation of animals from their cages, is seen in the *MaddAddam* trilogy as foolish. Snowman curses the people who unleash the Pigoons; the newscasters laugh at the vegans who try to help the ChickieNobs fly free; when Sharon takes Killer from Jimmy, she removes his only emotional support. Atwood's novels show veganism in something of the same light, and though it is

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[168] David Willman, 'Apparent Suicide in Anthrax Case', *Los Angeles Times*, 1 August 2008 <http://articles.latimes.com/2008/aug/01/nation/na-anthrax1> [accessed 19 March 2018].
[169] Korte, p. 153.
[170] Korte, p. 157.
[171] Korte, p. 160.

tempting to see the wholesome God's Gardeners in *The Year of the Flood* as one place where

Atwood shows animal activism in a positive light, Sheckels argues the contrary:

> God's Gardeners then seem to have some of the same characteristics that the
> considerably less beneficent CorpSeCorps has: they have tentacles of power,
> and they partially operate under a cloak of secrecy. There is violence among
> the Gardeners: old Mugi sexually assaults Toby, and he has evidently tried to
> do the same to other women who join the group. Burt is a molester of young
> girls. […] The natural soap they sell at Pleebland fairs is not natural at all, but
> simply soap they have found while scavenging and melted together; and the
> natural vinegar they sell at these fairs is not natural either, but made from
> partially full wine bottles they find outside of bars and clubs such as "Scales
> and Tails". Their exchanges, then, are just as subject to criticism as those of
> the corporations: the Gardeners' vinegar is just as suspect as the corporations'
> "secretburgers".[172]

If we accept this reading, it is devastating to the view that the God's Gardeners represent a

eutopian space in the narrative, since it is predicated on the same kinds of exploitation and

violence as that used by the CorpSeCorps. Moreover, the God's Gardeners, or rather, the

splinter group the MaddAddamites, are identified as a terrorist cell by the CorpSeCorps after

the bombing of the restaurant Rarity. At this eatery, patrons pay high prices to eat rare and

endangered species — much as in the short story "Thylacine Ragout" explored in intricate

detail in an essay by Barzilai, where she reflects on themes of extinction, exploitation, and

genetic engineering highly relevant to the *MaddAddam* trilogy.[173] However, the

MaddAdddamites, the text suggests, are not behind the bombing; their methods are resolutely

biological, depending on the release of genetically modified organisms rather than calculated

explosions: the attack doesn't fit their profile. In fact, the bombing was carried out by the

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[172] Sheckels, *The Political in Margaret Atwood's Fiction: The Writing on the Wall of the Tent*, loc.3628.
[173] Margaret Atwood, 'Thylacine Ragout' in *The Tent* (London: Bloomsbury, 2007), pp. 73–75; Shuli
Barzilai, 'Unfabulating a Fable, or Two Readings of "Thylacine Ragout"', in *Once upon a Time:
Myth, Fairy Tales and Legends in Margaret Atwood's Writings*, ed. by Sarah Appleton (Newcastle
upon Tyne: Cambridge Scholars Publishing, 2008), pp. 127–50.

Wolf Isaiahists, because the restaurant served up a liobam. Nontheless, this allows the CorpSeCorps to begin a crackdown on the God's Gardeners. Directly harming human beings is not on the MaddAddamite agenda.

If the MaddAddamites are not interested in the taking of human life, what are their aims? Their projects take the logic of animal liberation and turn it on its head. They design and release bioforms, some examples of which include: parasitic wasps that infect ChickieNobs with a modified chicken pox, killing them; a new form of the common house mouse addicted to the insulation of electric wiring; a new coffee bean weevil that is resistant to pesticides; a miniature rodent containing elements of both porcupine and beaver, which destroys fan belts and transmission systems in cars; a microbe that eats tar and turns several interstate highways to sand; neon herpes simplex. These bioforms disrupt the operation of the capitalist system of the pre-Flood world. The MaddAddamites act to halt production, and to limit movement.

> "Zeb figured if you could destroy the infrastructure," said Croze, "then the planet could repair itself. Before it was too late and everything went extinct." […] "Zeb didn't believe in killing people, not as such. He just wanted them to stop wasting everything and fucking up."[174]

However, Atwood undercuts their heroic efforts with bathos: 'Though some of those mice got out of control. They got confused. Attacked shoes. There were foot injuries.'[175] All of this is to suggest that there is another strand of protest activity in the novels which exists between the positive alternative lifestyle of the Gardeners and the identification with terrorism, which is known as sabotage, after the sabot, a wooden clog-like shoe, which was allegedly used by angry workers to damage machinery during the Industrial revolution. In *The Year of the Flood*, Crake tells Ren that what is needed is to eliminate 'the centre of power, but today it

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[174] Margaret Atwood, *Year*, p. 399.
[175] Margaret Atwood, *Year*, p. 399.

wouldn't be a single person, it would be the technological connections.'[176] Zeb evidently

agrees, and takes action to do just that. However, his actions fail; the CorpSeCorps contain

the outbreaks, and the MaddAddamite program makes little impact on the global scale of the

crisis.

The MaddAddamite sabotage opens a new possibility for reading Crake, which extends

from their identification of the problem and their methods for disrupting the systems that

generate that problem. Lee Rozelle suggests that Crake is more properly seen, not as a "mad,

bad, dangerous scientist", or as a terrorist, but as 'Crake the bio-saboteur', 'the double agent',

and the 'covert multinational Luddite'. Rozelle's reading asks that we 'entertain the notion

that this novel's central focus is not the end of humanity, but the fate of all life.'[177] Creating

alternative societal values — in the form of the God's Gardeners — has failed. Traditional

forms of peaceful protest, including marching, throwing symbolic produce into the sea, and

boycotts, have failed. Sabotage of the machinery of the state and the corporation have failed.

And still the crisis in the novel grows. Crake has been exposed to all these views for his

whole life. Looked at from this perspective, Crake's plan is the next incremental step in

protecting 'the fate of all life', and Crake really is 'the most altruistic guy around', only it's

not altruism, 'More like sink or swim'.[178] DiMarco reads this process as Crake's coming to

embody 'the quintessential *Homo faber*', eliding 'violence against material goods' with

violence against 'human instruments'.[179] Instead, I would argue this is what it means to take

seriously Atwood's final question regarding the "what if" of *Oryx and Crake*: 'Who's got the

will to stop us?'[180] If we can't stop ourselves — if we fail to develop a technomoral

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[176] Margaret Atwood, *Year*, p. 271.

[177] Lee Rozelle, 'Liminal Ecologies in Margaret Atwood's Oryx and Crake', *Canadian Literature*, 206 (2010), 61–72 (para. 5).

[178] Bethune, 'Atwood Apocalyptic', p. 48; Margaret Atwood, *Oryx*, p. 347.

[179] DiMarco, 'Paradice', pp. 170, 171.

[180] Margaret Atwood, 'Perfect Storms', para. 7.

temperance equal to the ecological crisis — then we need someone with the will to stop us, to save us from ourselves. It is this message on which Korte ends her piece on Crake as a terrorist:

> But *Oryx and Crake* — the work of an author who once claimed that she "believe[s] that fiction writing is the guardian of the moral and ethical sense of the community" — also urges another solution: Not being blind to misguided fundamentalisms and taking action *before* terrorism becomes a last resort.[181]

Thus the figure of the terrorist comes to play the opposite role to the CorpSeCorps in terms of temperance. Both are violent and extreme reactions. Read in this way, Crake's scheme is the only option for preservation. But this is pictured as a last ditch attempt, and is the worst possible outcome of the Anthropocene moment; Atwood implies that there are better choices that we can make. Crake is not a "mad bad scientist", but fulfils a necessary role in articulating Atwood's conception of temperance.

We Should Take Warning, We Should Forgive Each Other[182]

Evolutionary history is shaped by catastrophic events which bring about significant destruction, but eventually lead to re-population in different forms (or they have done so far). Crake accelerates the whole business of evolutionary history, accomplishing in a single lifetime the passing of a geological epoch. Crake's enterprise is not simply the extinction of the human species; in fact, from the evolutionary perspective, what we see is his attempt to save humanity from itself. This necessitates a dramatic re-writing of the 'human template', right down to the genetic level.[183]

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[181] Korte, p. 162.

[182] Margaret Atwood, 'They Are Hostile Nations' in *Power Politics* (Toronto, ON: House of Anansi Press, 1971), p. 37.

[183] Margaret Atwood, *Other*, p. 210.

In Crake's estimation, humans have ravaged the planet with several ends in mind, primarily competition over scarce resources and breeding rights, but with a look askance towards racism and divisive factionalism as well. It is only by clearing away the majority of old humanity, that Crake can bring this new evolutionary era to birth. His role as creator god in the Crakers' myths is accurate, in that he did, in fact, create them, but his benevolence is exaggerated in their myths. Nussbaum reflects on the difference between the viewpoint of humans and gods, and argues that

> The gods […] simply overlook, look over, the sufferings of human beings, without involvement or response. But precisely because they are better in this way, they simply don't fully see what is going on in our lives, they lack compassion, an essential ingredient of any human justice. If, from our view point, we prize compassion, we have to say that in their dealings in our realm, the gods are not just different, they are worse.[184]

Crake doesn't hesitate to kill Oryx, or to provoke Jimmy into killing him. Concerns that are central to our intra-human compassion are displaced by other values; thus entities and values that normally stand outside of our compassion, such as cloud forests, Crake cares deeply about. In this way, we can connect Crake to Timothy Morton's concept of the "hyperobject", a physical object or system that is so massive, distributed, and complex that it is difficult, perhaps impossible, to perceive. Morton gives climate change as one example of this idea, but also suggests

> Materials from humble Styrofoam to terrifying plutonium will far outlast current social and biological forms. We are talking about hundreds and thousands of years. Five hundred years from now, polystyrene objects such as cups and takeout boxes will still exist. Ten thousand years ago, Stonehenge didn't exist. Ten thousand years from now, plutonium will still exist.[185]

[184] Martha Nussbaum, *Love's Knowledge: Essays on Philosophy and Literature* (New York, NY: OUP, 1992), p. 375.
[185] Timothy Morton, *The Ecological Thought* (Cambridge, MA: Harvard University Press, 2010), p. 130; for further discussions on hyperobjects, see the monograph *Hyperobjects: Philosophy and Ecology*

Crake's role in Atwood's text is to perceive and take seriously the idea of such hyperobjects, which will exert their influence on the world 'for far longer than all of recorded human "history" so far'.[186] In doing so, Crake steps outside the normal frame of reference for human life, and thus takes on the godlike view that Nussbaum describes, overlooking the suffering of human beings. It is in this way that we can best understand Crake as "worse"; not as a "mad, bad, dangerous scientist", or 'a cunning megalomaniac bent on taking over the world', but as simply beyond quotidian concerns.[187]

Crake is at the very centre of the trilogy: by manipulating various characters and factions, he orchestrates the plot according to his own design: 'He is a creator, an auteur, a spinner sitting for years at the center of an ever-widening web.'[188] He is constantly distant and aloof, only partially captured by the text. Describing Crake in these terms links him to a number of Atwood's other dark protagonists, including Grace, Iris, and Zenia. His diagnoses regarding human nature draw from a long tradition of scepticism about human goodness, rooted in Hobbes, Schopenhauer, and Nietzsche; a similar scepticism has long been noted in Atwood's work. Certainly his view of the chaotic, disorderly, and disenchanting world in which he lives and the methods he uses to reconcile himself to it could be termed pessimistic.[189] Bouson argues that, in identifying them, Crake points towards *eudaimonistic* goals that we might find laudatory, were the means not so terrible:

> the radical solution to humanity's ills in a twenty-first century world of global, social, and economic decline is the destruction of humanity and the creation of the Crakers, noble savages that are environmentally friendly, peace-loving and socially and economically egalitarian.[190]

after the End of the World (Minneapolis, MN: University of Minnesota Press, 2013).
[186] Morton, *The Ecological Thought*, p. 131.
[187] Margaret Atwood, *Other*, p. 194.
[188] Barzilai, 'Tell', p. 97.
[189] For a wide-ranging account of pessimism, see Joshua Foa Dienstag, *Pessimism: Philosophy, Ethic, Spirit* (Princeton, NJ: Princeton University Press, 2009).
[190] Bouson, 'Using', pp. 16–17.

The description of him as "mastermind" foregrounds a direct comparison between Crake and Atwood. Aside from sharing some of the same environmentalist motivations, their shared role as organizers brings Crake closer to Atwood than critics have recognised.[191] Crake is Prospero to Atwood's Shakespeare, a metaphor that Atwood herself uses in her preface to *The Island of Doctor Moreau*.[192] Attempting to find Atwood's biography in Crake is obviously a mistaken enterprise, as Michael Rubbo's biographic documentary of Atwood laughably demonstrated, akin to Edward Dowden's discovery of Shakespeare in Prospero which he attributed to 'the temper of Prospero' and his 'harmonious and fully developed will.'[193] As a matter of fact, Atwood does not share Crake's view of women, or violence, or the proper ends of scientific study. Simple biography mining is neither satisfying nor accurate; but seeing Crake as a metaphor for the artist's craft may prove more useful. Certainly this is a more cheerful way to account for the attraction that Crake's character exercises. Crake is literally a creator figure, bringing life to a new species, and allowing life to flourish across the planet after the collapse of the human civilization that had been systematically destroying it. Like so many of Atwood's artist figures he is entwined with darkness; in fact, he may well be the darkest of them all.

Crake thus outlines and articulates Atwood's criticisms of contemporary society. Of course, this is only one way that Atwood achieves this; her satiric portrait of twenty-first century life is the other major vehicle of this criticism. Dismissing him as a mad scientist fails to properly grasp the complexity of the critique, because it renders the criticisms Crake

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[191] Deborah C. Bowen, 'Ecological Endings and Eschatology: Margaret Atwood's Post-Apocalyptic Fiction', *Christianity & Literature*, 66.4 (2017), 691–705 (p. 695) <https://doi.org/10.1177/0148333117715252>, notes that Adam One's sermons contain passages very close to views expressed by Atwood in interviews – for instance on the after effects of the death of the oceans – but neglects to note such similarities in Crake's ruminations.

[192] Margaret Atwood, *Other*, p. 159.

[193] Michael Rubbo, *Margaret Atwood: Once in August*, 1984 <https://www.nfb.ca/film/margaret_atwood_once_in_august>; Edward Dowden, *Shakespeare: A Critical Study Of His Mind And Art* (New Delhi: Atlantic Publishers & Dist, 2003), p. 320.

specifically raises mere 'gibbering and raving', when they are actually fulfil the novel's role as moral and ethical guardian of the community. Crake is not isolated; he is not just a numbers man, with no emotional life; Atwood represents him as much more rounded that this. Nonetheless, his actions are horrifying — violent and cataclysmic. But this is the only response that can be raised to the excessive desires of the twenty-first century. The eutopian alternative which is implicit in these ustopian novels is that we must embrace temperance.

5 | Atwood as Activist

Is it our fault? Did we cause this wreckage by breathing?

All we wanted was a happy life

and for things to go on as they used to.

[…]

[The weather is] blind and deaf and stupendous,

and has no mind of its own.

Or does it?

What if it does?

Suppose you were to pray to it?

What would you say?[1]

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[T]hat's exactly what I like about Atwood's speculative fiction. The more I
teach, the more I'm looking for literature that stimulates debate and
encourages activism.[2]

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In the preceding chapters, I have argued that Atwood's novels have a practical moral
orientation. They urge us to adopt a set of virtues that advance the importance of our nature
as social beings embedded in an evolutionary history, and in a world which we have damaged
almost beyond repair. In doing so, they are intrinsically political, advocating for an agenda
that seeks to transform the relationship of humanity to the planet, as well as to one another -

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[1]	Margaret Atwood, 'The weather' in *The Door* (London: Virago, 2009), pp. 53–55.
[2]	Sean Murray, 'The Pedagogical Potential of Margaret Atwood's Speculative Fictions: Exploring
	Ecofeminism in the Classroom', in *Environmentalism in the Realm of Science Fiction and Fantasy
	Literature*, ed. by Chris Baratta (Newcastle: Cambridge Scholars Publishing, 2012), pp. 111–25 (p.
	121).

and the trilogy only make sense when this agenda is understood. In concert with writing these

novels, Atwood has been an active political figure, both within Canada and on the global

stage.[3] In this final chapter, I consider how we can see the argument I have advanced as

extensional with her life and work — and to argue that Atwood's advocacy can be reconciled

with the views explored in her fiction. Bouson is one critic who highlights the importance of

the ethical truth that what is enduringly important in Atwood's works is that they habituate us

to action:

> Atwood, who has long talked of the moral imperative that drives her work,
> also believes in the transformative — and ethical — potential of imaginative
> literature, and indeed, *Year*, like *Oryx*, is a feminist, anti-corporate and
> radically ecological work in which Atwood, in sharing her fears of and outrage
> against current trends in contemporary society, also wishes to prod her readers
> to meaningful political thought and action.[4]

However, given the urgency of the climate crisis as described by Williston and as depicted

within the trilogy, this may seem like an uninspiring response to theorists more sceptical

about the connections between reading and political change on a large scale.[5] I have argued

that Crake is depicted as a last chance for human beings to survive, and the cost of that

chance is omnicide and genetic modification to take the edge off our basest instincts — a

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3 Some of the causes Atwood is involved with are listed by York in '"A Slightly Uneasy Eminence":
The Celebrity of Margaret Atwood', in *Margaret Atwood: The Open Eye*, ed. by John Moss and Tobi
Kozakewich (Ottawa, ON: University of Ottawa Press, 2006), pp. 35–48 (p. 43): 'Amnesty, protection
of wilderness space, support for striking University of Toronto teaching assistants and striking
Calgary Herald workers, the anti-freetrade movement, and so on.'; Deborah C. Bowen, 'Ecological
Endings and Eschatology: Margaret Atwood's Post-Apocalyptic Fiction', *Christianity & Literature*,
66.4 (2017), 691–705 (p. 700) <https://doi.org/10.1177/0148333117715252> mentions that Atwood
'gave up her house in France after President Jacques Chirac resumed nuclear testing' and 'donated a
significant portion of her Booker Prize money to environmental groups'.

4 J. Brooks Bouson, '"We're Using Up the Earth. It's Almost Gone": A Return to the Post-Apocalyptic
Future in Margaret Atwood's *The Year of the Flood*', *The Journal of Commonwealth Literature*, 46.1
(2011), 9–26 (p. 23) <https://doi.org/10.1177/0021989410395430>.

5 Byron Williston, *The Anthropocene Project: Virtue in the Age of Climate Change* (Oxford: OUP,
2015) especially chapter 3, 'The Spectre of Fragmentation'; for examples of such sceptical views, see
Suzanne Keen, *Empathy and the Novel* (Oxford: OUP, 2010); and Anne Whitehead, *Medicine and
Empathy in Contemporary British Fiction* (Edinburgh: Edinburgh University Press, 2017).

catastrophic outcome. I have argued that novels more broadly and these in particular are a source of ethical understanding to which it is important to pay attention, and that they contribute to our ethical understanding on a number of levels; they do not offer a solution to a single problem, but rather offer a more general consideration of the practice of virtue as a skill. However, if the outcome of remaining on our current societal path is as dire as Atwood depicts, is writing a trilogy of novels really the best way to mitigate this possibility? Wouldn't it be better to raise funds for charity, run for political office, or sail aboard the Rainbow Warrior? If activism is understood as vigorous campaigning to bring about change in the political or social realm, then Atwood's novels, and literature more broadly, seem to fail to be activist or to encourage activism of this kind; however, I will argue that such a view fails because it takes an insufficiently nuanced view of the ethical achievements of literature, and because it is defeatist, ceding too much to the sense that action, any action, must be taken immediately, and denying the vital role of theoretical and cultural considerations.

A similar objection can be raised to one of Atwood's technological inventions, the LongPen. In an interview with Neil Gaiman, conducted to celebrate her 75th birthday, Atwood describes the rationale behind the device, indicating the problems it was intended to solve:

> Well, the initial moment was 2004 and at that point there were no ebooks, there were no touch screens on your phone, and there were no tablets. There were books, and there were book tours that only ever took authors to big cities. So there were a ton of people out there who didn't live in big cities, who never got to meet the author or have a book signed unless they drove thousands of miles. […] Canada's really big. That was always a bit of an impediment when you were talking about books, because they had to get to these places that were quite far apart.[6]

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[6] Margaret Atwood and Neil Gaiman, *Neil Gaiman Helps Margaret Atwood Celebrate Her 75th Birthday! - YouTube*, 2015 <https://www.youtube.com/> [accessed 20 November 2016].

Atwood's solution to this problem was to use the internet as a bridge between the author's computer and what was initially a booth that contained a screen, a webcam, and a mechanical armature that held a pen. The booth could be shipped to locations that a book tour schedule would never be able to include. When set up, people who wanted to 'meet the author' and 'have a book signed' could enter the booth, place their book on the stand under the pen, and talk to Atwood using Skype while she signed their books. Using a stylus and her tablet, Atwood could write a personalised message that would then be transcribed onto the physical copy in the booth by the armature. Her conception of the LongPen also includes two ethically orientated considerations: 'There are people who can't travel, people in wheelchairs or who can't leave home because they've got kids to look after, and those people can't go to book tours', not to mention the fact that 'travelling takes its toll [...] [t]here will come a time in my life when I will be physically incapable of doing it.' While Atwood only talks about those who cannot attend book tour events, her second point suggests that this technology will also assist those authors who are not physically capable of long stints of travelling across continents to multiple signing events. Thus Atwood suggests the technology has an important role to play in accessibility.

Offering the LongPen as a solution to an accessibility problem and writing a novel to combat a global climate crisis are both open to the objection that they embody a form of "cosy activism".[7] I understand cosy activism to be a criticism on several levels: the term suggests that the issue being campaigned for is trivial or parochial; it suggests that the campaigning itself is performed only insofar as it is convenient and without risk; it also suggests that it may be ineffective. In the *MaddAddam* trilogy, the God's Gardeners are the main force of resistance to the corporate logic that we are shown; they live a circumscribed life, hemmed in by CorpSeCorps security services and violent street gangs, mocked for their

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[7] I am indebted to Derek Ryan for this formulation.

idiosyncratic mode of life. To the eyes of a reader from the global prosperous, their life is impoverished, and functions as a radical statement about their conviction in their religious beliefs rather than a compelling portrait of a life we might be persuaded to adopt. If Crake's solution is abhorrent to us, the next solution to the climate crisis that the novel offers is the life of the God's Gardeners. However, Atwood does not live with a commune of like-minded eco-warriors, nor does the novel seem to suggest that a there will be a Gardener's equivalent to the Great Awakening, either in the world of the trilogy or in real life. Indeed, direct political action in the novels is shown to be fruitless; the protesters of the Happicuppa franchise seemingly achieve nothing, and Sharon, or Hammerhead as she is known in activist circles, is executed by the security services. If we compare Atwood's activist record to other figures in the arts, such as actors Martin Sheen (who in 2009 claimed that he had been arrested 66 times while protesting) and James Cromwell (who became a vegan during the filming of *Babe*; Cromwell has subsequently been fined and briefly imprisoned for protest work on behalf of PETA), Atwood's remote signing service and ustopian novels seem indirect methods of campaigning for social change at best. Responding to Graham Huggan's description of Atwood's fame as 'negotiated from the safety of the middle-class family, the middle-class education system, the middle-class home' — in essence, a charge that Atwood's activism is cosy activism — Lorraine York counters that these areas may not be as cosy as Huggan at first suggests: 'Whether those spaces actually are safe is a question that Atwood's work persistently interrogates.'[8]

It is necessary, therefore, to recapitulate the virtue ethics understanding of Atwood's fiction, and how it can act as a moral and ethical guardian of the community, since such a role requires activism. For Murdoch, literature sharpens and deepens our ability to perceive morally salient details in situations by paying attention; she phrases this in the following way:

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[8]   York, 'Uneasy', p. 36.

> I can only choose within the world I can *see,* in the moral sense of "see" which implies that clear vision is a result of the moral imagination and moral effort. There is also of course "distorted vision", and the word "reality" here inevitably appears as a normative word.[9]

Lawrence Blum argues that this means that 'moral perception comes on the scene before moral judgement', and that because it is prior to judgement, it can 'lead to moral action outside the operation of judgement entirely'.[10] Following Murdoch on this point, Alice Crary in *Beyond Moral Judgement* (2007) argues that

> there is good reason to allow that a stretch of thought that does not make use of moral concepts, and that is not concerned with "moral topics", might nevertheless play the kind of role in expressing a person's moral outlook that establishes it as a genuine moral thought.[11]

Crary makes extensive use of literature to explore these wider expressions of moral thought, and in her more recent work, focusing on the relationship within ethics of human and non-human animals, she makes extensive use of literature, including the work of Raymond Carver, J.M. Coetzee, Daniel Keys, W.G. Sebald, and Leo Tolstoy.[12] For those reading in this way, literature offers access to these moral thoughts expressed in non-moral ways; these writers show morality in their "round" characterisation, but also in their prompting of the moral imagination. As such, reading literature can literally open our eyes to moral problems we could not see before. Thus, the *MaddAddam* trilogy reveals our society to us in its tawdry wrappings of consumer capitalism and rampant greed. Particular desires, shared by the majority of our fellow human beings, threaten us, and the *MaddAddam* trilogy tries to force us to see this threat.

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9   Iris Murdoch, *The Sovereignty of Good*, 2nd edn. (London: Routledge, 2001), p. 36.
10   Lawrence A. Blum, *Moral Perception and Particularity* (Cambridge: Cambridge University Press, 1994), p. 31.
11   Alice Crary, *Beyond Moral Judgment* (Cambridge, MA: Harvard University Press, 2009), p. 3.
12   Alice Crary, *Inside Ethics: On the Demands of Moral Thought* (Cambridge, MA: Harvard University Press, 2016).

Similarly, Nussbaum praises novels such as Ralph Ellison's *Invisible Man* (1952) for their ability to reflect 'about our failures of perception and recognition'.[13] However, for Nussbaum literary style provides another central way that novels elicit ethical responses from us: 'this expresses a sense of life and of value, a sense of what matters and what does not, of what learning and communicating are, of life's relations and connections. Life is never simply *presented* by a text; it is always *represented* as something.'[14] While Murdoch focuses on how literature introduces us to situations in such a way that we might previously have failed to see as moral, Nussbaum stresses the technical craft of writing itself, and argues for the importance of treating literary language as complex and representational, demanding effort to understand at a level beyond the surface reading. Where virtue ethical readings of novels tend to fail, according to Nussbaum, is when they try to 'force the text into a narrow moral straitjacket, neglecting other ways in which it speaks to its reader, neglecting too its formal complexities.'[15] Consequently, in Chapter One I have discussed at length the impact which the interlocking genre claims made about the trilogy have on its ethical dimensions. Neologism, word-play, intertextual references, the choice to write a trilogy rather than a single narrative; all of these contribute to the sense of life and value embodied in the texts.

Finally, for virtue ethicists more generally, novels can operate as ethically educative by habituating us to being virtuous; we can read about wise characters, who truly know how to act in the right way at the right time. Characters, both round and flat, act in stories, and are acted upon. For those reading for character, viewing such interactions and changes allows us to understand how our own characters can be shaped. Novels are educative in the sense that they show us possibilities; what do we admire in a character, and what do we find

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[13] Martha Nussbaum, *Cultivating Humanity: A Classical Defense of Reform in Liberal Education* (Cambridge, MA: Harvard University Press, 2003), p. 87.

[14] Martha Nussbaum, *Love's Knowledge: Essays on Philosophy and Literature* (New York, NY: OUP, 1992), p. 5.

[15] Nussbaum, *Knowledge*, p. 21.

reprehensible? At the same time, because one views characters empathetically, one comes to the view of Terence: 'homo sum; humani nil a me alienum puto.'[16] My examination of the characterisation of Crake in Chapter Four adopts something of this view; it is my contention that critics have failed to realise how 'convincing' a surprise Crake offers the reader, and have consequently overlooked an important part of Atwood's critique.[17] Waltonen took issue with the students in her class who argued that Crake was a monster and inhuman, because

> I believe this dismissal of the character [Crake] is the opposite of what active reading is designed to do. If we dismiss a human as a non-human, if we do not seek to understand, we will not understand. Our eyes remain closed.[18]

Defalco, however, rightly points out that in the *MaddAddam* trilogy '[a]s always, Atwood's wry narrative style exposes the delusions and blind spots of *all* the perspectives it portrays, preempting easy scapegoating or hero worship.'[19] This kind of virtue ethical reading — one looking for sage characters — doesn't work as well for Atwood's works as it does for other texts (for example those of Jane Austen), because Atwood, like Tessman and Williston, see people as more commonly vicious than virtuous, but always in some combination. There are no "sage" characters in the *MaddAddam* trilogy, for the obvious candidate for that role, the supreme eco-warrior Adam One, is complicit in sabotage, extensive deceit, and possibly even in manipulating Crake to unleash JUVE.

In this chapter, I examine the concept of witnessing and how it feeds into Atwood's conception of activism. I use this to explore the presentation of the main activist group in the

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[16] "I am human, and I regard no human business as other people's." Terence, 'The Self-Tormentor', in *The Woman of Andros, The Self-Tormentor, The Eunuch*, trans. by John Barsby (Cambridge, MA: Harvard University Press, 2001), p. 186, l.77. In an interview entitled *Dr. Maya Angelou - I Am Human*, 2013 <https://www.youtube.com/watch?v=ePodNjrVSsk&feature=youtube_gdata_player> [accessed 22 February 2015]. Angelou prefers the translation: 'I am a human being - nothing human can be alien to me'; 'that's one thing I'm learning', she says.

[17] E.M. Forster, *Aspects of the Novel*, Kindle (London: Hodder and Stoughton, 2016), p. 77.

[18] Karma Waltonen, '"Atwood's View ... Is Crazy, but Very Possible": Students Reading *Oryx and Crake*', *Margaret Atwood Studies Journal*, 5.2 (2012), 16–35 (p. 30).

[19] Amelia Defalco, '*MaddAddam*, Biocapitalism, and Affective Things', *Contemporary Women's Writing*, 11.3 (2017), 432–51 (p. 447) <https://doi.org/10.1093/cww/vpx008>.

trilogy, the God's Gardeners, to more fully evaluate how Atwood depicts their activism and what helps them to succeed. Their representation is an important contributor to the portrayal of temperance in the trilogy, since they form the principal puritanical forces, the deficiency to the Compound's excess. How far we sympathise with this puritanism is a difficult question, since Atwood also presents 'zealotry' as 'distinctly silly.'[20] Then I turn to Atwood's own testimony, available on the social media platform Twitter, where she has been active for almost a decade. Finally I examine the notion of pledges, an idea which Atwood has used twice to encourage activism and promote specific environmental causes. The first arose in the context of the book tour for *The Year of the Flood*, which was itself a green experiment, and the second is included in Atwood's trilogy of graphic novels, *Angel Catbird* (there is the suggestion that further volumes may be written) .

Witnessing

Sheckels has argued that Atwood is a 'proponent of more gradual and democratic change', and suggests that she sees literature as the best method for achieving this aim;

> it has the potential to reshape cultural assumptions influencing many of her readers, including the "normalcy" of unchecked resource consumption, the privatization of government, and a blindness to the environmental impacts of widely used technologies.[21]

Williston argues that engaging the moral concerns of the global prosperous is likely to be the most beneficial way to tackle the climate crisis. Atwood's novels thus aim to reshape the cultural assumptions of this group of powerful people, to bring them, by increments, to make

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[20] Defalco, 'MaddAddam', p. 447.
[21] Theodore F. Sheckels, *The Political in Margaret Atwood's Fiction: The Writing on the Wall of the Tent* (London: Routledge, 2016), loc.129-30.

changes in their lives that have significant impact when taken together. The accusation of

cosy activism over-values committedness to a cause at the expense of the other qualities of

activism; engagement and cooperation.[22] As noted in Chapter Three, radical changes,

especially change driven by a monolithic ideal, have failed, frequently with catastrophic

results. Atwood writes

> Historically, Ustopia has not been a happy story. High hopes have been
> dashed, time and time again. The best intentions have indeed paved many
> roads to Hell. Does that mean we should never try to rectify our mistakes,
> reverse our disaster-bent courses, clean up our cesspools or ameliorate the
> many miseries of many lives? Surely not: if we don't do maintenance work
> and minor improvements on whatever we actually have, things will go
> downhill very fast. So of course we should try to make things better, insofar as
> it lies within our power. But we should probably not try to make things
> perfect, especially not ourselves, for that path leads to mass graves.[23]

Thus Atwood argues that radical changes of a millenarian kind, of the kind advocated by the

God's Gardeners, will not succeed. The accusation of cosy activism can therefore be

dispelled by an argument from efficacy; if Atwood's novels shift patterns of cultural

assumptions in this manner, then while this may be done from the cosiness of one's own

home, its effects can be widespread and beneficial. On this basis, we have a model for how

writing narratives such as the trilogy can be a form of activism:

> The question Atwood asks at the beginning of *Payback* — "How can a fiction
> generate real objects?" — turns into a recipe for her efforts at activism through
> speculative narratives. Committed to narrative's performative power, Atwood
> gambles that constructing a fiction about our catastrophic future, or about
> humans' debt to the environment, will generate real change in the same way

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[22] See Ronald L. Sandler, *Character and Environment*, Kindle (New York, NY: Columbia University Press, 2007), pp. 48–49 for more on the virtues of environmental activism.

[23] Margaret Atwood, 'The Road to Ustopia', *The Guardian*, 14 October 2011, para. 32 <http://www.guardian.co.uk/books/2011/oct/14/margaret-atwood-road-to-ustopia> [accessed 20 October 2012].

that the fiction of a bank's interest, or a tooth fairy's gift, can produce real money.[24]

In this analysis, Winstead explicitly connects the concept of activism to speculative fiction; I would argue that activism is actually part of Atwood's fiction writing as a whole, but that it is intensified in the speculative and ustopian fictions.

Atwood scholarship offers a model of this mode of activism, in the form of witnessing. Atwood herself has described writing as an act of witnessing:

> Writing is also a kind of sooth-saying, a truth-telling. It is a naming of the world, a reverse incarnation: the flesh becoming word. It's also a witnessing. *Come with me*, the writer is saying to the reader. *There is a story I have to tell you, there is something you need to know*. The writer is both an eye-witness and an I-witness, the one to whom personal experience happens and the one who makes experience personal for others.[25]

In as much as they reflect the society that they were created in, Atwood's fictions are an eye-witness account of the times; and the times have to be seen to be believed.[26] Contrasting the powerlessness of postmodernist views in the face of a proliferation of ironic indeterminacy, Hollis argues that Atwood halts this through her recognition of the existence of a pre-verbal physical world in which violence and suffering exists; consequently Atwood insists 'on the possibility of *bearing witness*' to such violence and suffering.[27] This testimony is made

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[24] Ashley Winstead, 'Beyond Persuasion: Margaret Atwood's Speculative Politics', *Studies in the Novel*, 49.2 (2017), 228–49 (p. 241) <https://doi.org/10.1353/sdn.2017.0018>.

[25] Margaret Atwood, 'An End to an Audience?', *The Dalhousie Review*, LX.3 (1980), 415–33 (p. 425).

[26] As such, witnessing is connected to the importance of other visual metaphors for perception and understanding in Atwood's work, highlighted in the names of essay collections on Atwood such as *Margaret Atwood: The Open Eye*, ed. by John Moss and Tobi Kozakewich (Ottawa, ON: University of Ottawa Press, 2006). Shannon Hengen explores the centrality of visual elements in Atwood's works in her seminal study *Margaret Atwood's Power: Mirrors, Reflections and Images in Select Fiction and Poetry* (Toronto, ON: Second Story Press, 1993).

[27] Hilda Hollis, 'Between the Scylla of Essentialism and the Charybdis of Deconstruction: Margaret Atwood's True Stories', in *Various Atwoods: Essays on the Later Poems, Short Fiction, and Novels*, ed. by Lorraine York (Toronto, ON: House of Anansi Press, 1995), pp. 117–45 (p. 117).

persuasive by a number of features of Atwood's writing, which are highlighted by Jagna Oltarzewska in her reading of Offred's witnessing in *The Handmaid's Tale*:

> The mere fact of her survival confers an unusual degree of moral authority to her story, whatever its objective truth value. This authority is increased by the Handmaid's insistence on her own weakness and complicities with the system that holds her body in thrall. It is the admission of her own inadequacy and lack of political will that, perhaps more than any other single tactic, make Offred a supremely convincing witness.[28]

The authority granted by survival is also available to Snowman, Toby, Ren, and Zeb, all characters who survive to report their experiences of the inhumanity of violence and the suffering it produces. Similarly, Snowman and Toby ask themselves hard questions about their own complicity in taking part in these acts; Zeb's narrative seems largely unaffected by them, and Ren doesn't acknowledge a larger realm than her own personal relationships. We can see at least Toby and Snowman share key characteristics with Offred that make their testimony equally compelling.

For Atwood writing is characterised not as a 'commentary', or a 'vehicle for self-expression or a passing distraction', but rather it has a 'distinctly moral purpose' as an '*intervention*'.[29] As Oltarzewska suggests, the process by which this occurs is as follows:

> As witness, the writer or narrator is faced with the task of securing belief in her fictional universe, establishing a communicational relay by means of which the addressee or reader of the tale is interpellated, in her turn, into the role of witness and forced to recognize the inescapably moral implications of her activity. Reading a literary text becomes, to borrow Shoshana Felman's phrase, '*an alignment between witnesses*'.[30]

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[28] Jagna Oltarzewska, 'Strategies for Bearing Witness: Testimony as Construct in Margaret Atwood's The Handmaid's Tale', in *Lire Margaret Atwood : The Handmaid's Tale*, ed. by Marta Dvorak, Interférences (Rennes: Presses universitaires de Rennes, 1999), pp. 47–55 (para. 14) <http://books.openedition.org/pur/30516> [accessed 6 April 2018].

[29] Oltarzewska, para. 1.

[30] Oltarzewska, para. 1.

Read in this way, Atwoodian witnessing operates by the same mechanics as those of the virtue ethics reading: expanding moral vision to include previously unrecognised moral issues, expressing these even in non-moral language, and convincing the reader to recognise their situation.[31] For Atwood in general 'telling the story is a way to explore alternatives', and this process is magnified in narratives that are, fundamentally, speculations about alternatives.[32] Waltonen's study of readers of *Oryx and Crake* provides fascinating evidence that Atwood's texts provoke 'questioning, dialogue, and community.'[33]

Atwood's witnessing can be read as activist in as much as it shapes cultural values, recalling the epigraph to this chapter: 'I'm looking for literature that stimulates debate and encourages activism.'[34] Shaping cultural values requires more than just good writing; it requires a publishing base that can make one's works available to a wide audience, hopefully in many different languages. It requires a reading public who remain interested in complex, difficult, and depressing narratives of bare survival, and a community of interested and passionate scholars ready to explore them. As Lorraine York has shown in her compelling studies, *Literary Celebrity in Canada* (2007) and *Margaret Atwood and the Labour of Literary Celebrity* (2013), Atwood has worked hard at establishing these elements in order to empower her narratives to achieve her ethical and political ends more successfully. The highly efficient nature of the O.W. Toad office, the activities of which York chronicles in detail, reflects the use of "Margret Atwood Inc." as a chapter title in Huggan's *The Post-Colonial Exotic* (2001).[35] Atwood's commercial interests are international, and her celebrity

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[31] Wayne Booth introduces the concept of "coduction" to describe sympathetic process of being drawn into a relationship with a narrative in this way in *The Company We Keep: An Ethics of Fiction* (Berkeley, CA: University of California Press, 1988), pp. 70–75.

[32] Karen F. Stein, *Margaret Atwood Revisited* (New York, NY: Twayne, 1999), p. 7.

[33] Waltonen, p. 33.

[34] Murray, p. 121.

[35] Graham Huggan, 'Margaret Atwood Inc., or, Some Thoughts on Literary Celebrity', in *The Post-Colonial Exotic: Marketing the Margins* (London: Routledge, 2001), pp. 209–27.

offers her a platform to make significant moral interventions. Sali Nasib Karmi suggests in *Many Kinds of Strong Voices* (2008) that Atwood's celebrity and political activism are evidence of 'her transnational mission', which has 'shaped her cultural and feminist roles. As such, Atwood is not only a celebrity in Canada, but famous beyond its borders.'[36] Read this way, Atwood's activism has grown with her fame; not only is she empowered by her celebrity status to be heard by a wider audience, but also to make interventions on a truly global scale.

God's Gardeners

> Oh Lord, You know our foolishness,
>
> And all our silly deeds;
>
> You watch us scamper here and there,
>
> Pursuing useless greeds.[37]

-

The God's Gardeners, together with the schismatic MaddAddamite faction, are the primary models of direct action in the trilogy. They adopt an environmentally friendly lifestyle, adhere strictly to policies of recycling, and squat in abandoned buildings powered by solar electricity; they wear 'dark sack-like garments' they dye themselves, and Adam One is memorably described as wearing 'a caftan that looked as if it had been sewn by elves on hash'.[38] Snyder summarises their lifestyle:

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[36] Sali Nasib Karmi, '"Many Kinds of Strong Voices": Transnational Encounters and Literary Ambassadorship in the Fiction of Margaret Atwood and Hanan Al-Shaykh' (unpublished PhD, University of Exeter, 2008), p. 51.

[37] Margaret Atwood, *The Year of the Flood* (London: Virago, 2010), p. 236.

[38] Margaret Atwood, *Year*, pp. 55, 48.

> The Gardeners lived deliberately off the grid in a precarious oasis above the urban wasteland, growing their own organic food in roof-top gardens, generating their own electricity on Run-For-Your-Light treadmills, keeping beehives for honey, and making their own vinegar and soap, all of which they sold at farmers' markets to privileged slummers on weekend excursions from the compounds.[39]

They have a list of saints, all of whom are marked out by their environmentalism; the good deeds and the lessons these saints convey are retold in Adam One's sermons and the extracts from *The God's Gardeners Oral Hymnbook* which precede each chapter in *The Year of the Flood*. Indeed, the chapter headings in that novel are each named after a God's Gardener feast day — examples include "The Feast of Adam and All Primates", "April Fish", "Saint Rachel and All Birds". Rather than acceptance, the group is met with indifference:

> It would be bad for their image to eviscerate anything with God in its name […] The Corporations wouldn't approve of it, considering the influence of the Petrobaptists and the Known Fruits among them. They claim to respect the Spirit and to favour religious toleration, as long as the religions don't take to blowing things up: they have an aversion to the destruction of private property. […] They view us as twisted fanatics who combine food extremism with bad fashion sense and a puritanical attitude towards shopping. But we own nothing they want, so we don't qualify as terrorists.[40]

This protection does not last till the end of the novel; Bernice, Jimmy's one-time room mate and Ren's former best friend, is gunned down in a God's Gardeners safe house after the group is declared a terrorist group.

The other two sects mentioned in this passage, the Petrobaptists and the Known Fruits are among a large number of newly dissenting quasi-Christian denominations, which Toby also describes as 'fringe cults'; other fringe religious groups include Salvation Army bands,

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[39]   Katherine V. Snyder, 'It's the End of the World As We Know It', ed. by Margaret Atwood, *The Women's Review of Books*, 27.2 (2010), 19–20 (p. 19).

[40]   Margaret Atwood, *Year*, p. 58.

Pure-Heart Brethren Sufis, Ancient of Days, Hare Krishnas, and Lion Isaiahists and Wolf Isaiahists.[41] Zeb and Adam's father, the corrupt Rev, is the head of a megachurch affiliated with the Petrobaptists; The Church of PetrOleum.[42] Based on Matthew 16:18, "Thou art Peter, and upon this rock I will build my church", the Rev argues that the 'true meaning of *Peter* refers to petroleum, or oil that comes from rock', because 'what is more valued by us today than oil?'[43] Veena — a backsliding Gardner who leaves the group after her husband, one of the senior Gardeners, is discovered to be sexually assaulting young girls, including, it is implied, his own daughter Bernice — joins the Known Fruits, 'who claimed it was a mark of God's favour to be rich because *By their fruits ye shall know them*, and *fruits* meant bank accounts'.[44] Based on contemporary so-called Prosperity Theologians, as well as historic precedents, such as the New England Puritans, they associate growing wealth with religious devotion, and lack of wealth as punishment for sin. Unlike the God's Gardeners, these other fringe groups are all depicted solely as corrupt, as in the case of the Church of PetrOleum and the Known Fruits, and as cultish, like the Isaiahists.

What separates the Gardeners from these other groups is their religious acceptance of a creation care theology, as opposed to a Dominionist theology. These are distinguished, partly, by their reading of Genesis; for green theologians, the charge of stewardship means that humans are tasked by god with the task of maintaining the planet in the interest of all created life, to 'dress it and keep it'.[45] The importance of the role, and its attachment to a range of other important issues in the bible, are addressed by Calvin B. DeWitt in his introductory

41 Margaret Atwood, *Year*, p. 47.
42 Margaret Atwood, *MaddAddam* (London: Virago, 2014), p. 137.
43 Margaret Atwood, *MaddAddam*, p. 138.
44 Margaret Atwood, *MaddAddam*, p. 344.
45 Genesis 2:15 in *The Bible: Authorized King James Version*, ed. by Robert Carroll and Stephen Prickett (Oxford: OUP, 2008), p. 3.

essay to *The Green Bible*.[46] By contrast, Dominionists refer to the command to '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.'[47] Dominionist readings of Atwood's novels characterise them as dangerous and spiritually threatening: for instance Michael Wagner's review of the *The Handmaid's Tale*, written for the Dominionist website *Chalcedon*, describes the novel as a 'deliberate and malicious attack on the Christian Right' and 'an awful book' besides.[48] Atwood says that she follows 'with great interest the differences between Dominionists, and Creation Care and Stewardship people'.[49] After writing *The Year of the Flood*, she was interviewed by Lorna Dueck on a Christian television station. As part of that interview, Dueck introduced another two guests, Leah and Markku Kostamo, who established a Canadian branch of the Christian charity A Rocha. A Rocha is an international network of affiliated environmental Christian groups, which pairs environmental conservation with religious devotion, as reported in Leah Kostamo's autobiography *Planted* (2013). The Kostamos began the first A Rocha centre in Canada, which works to protect and conserve the Little Campbell River watershed in British Columbia. At a second interview, hosted by A Rocha, Leah Kostamo began by asking Atwood why she agreed to the interview, and Atwood's response was: 'You're in my book. […] You're the real embodiment of the people in [*The Year of the Flood*] who are trying to

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[46] Calvin B. DeWitt, 'Reading the Bible through a Green Lens', in *The Green Bible*, ed. by Michael G. Maudlin and others, NRSV (San Francisco, CA: HarperCollins, 2008), pp. 25–34; in her interview with Leah Kostamo, Atwood reports that she owns a Green Bible, A Rocha Canada, *Margaret Atwood & Leah Kostamo at the Green Gala*, 2014 <https://www.youtube.com/watch?v=GhhEIILThaw> [accessed 18 November 2016] (7:30-7:35).

[47] Genesis 1:28 in Carroll and Prickett, p. 2.

[48] Michael Wagner, 'Atwood vs. Atavism? The Handmaid's Tale and Its Flagrant Misrepresentation of the Christian Right', *Chalcedon*, 2002 <http://chalcedon.edu/faith-for-all-of-life/issues-of-life/atwood-vs-atavism-the-handmaids-tale-and-its-flagrant-misrepresentation-of-the-christian-right/> [accessed 25 November 2016]; for a more nuanced Christian response, which also considers Oryx and Crake and The Year of the Flood, see Rachel Thorpe, 'Life without Certainty: Margaret Atwood's Ambiguous Worlds', *Jubilee Centre*, 2012 <http://www.jubilee-centre.org/life-without-certainty-margaret-atwoods-ambiguous-worlds/> [accessed 25 November 2016].

[49] A Rocha Canada (7:20-7:25).

combine faith and nature and science.'[50] Although I have so far been interpreting Atwood's

claim to seeing the trilogy as a source of moral insights in a secular way, with what follows,

we have to be prepared to see Atwood's works as mobilising a distinctively twenty-first

century type of Christianity, speaking into what Deborah Bowen describes as 'the middle

space'.[51] Thus, as Zhange Ni notes,

> [Atwood] encourages new religious groups to use the hymns she has
> composed for God's Gardeners and solicits suggestions for more saints who
> can contribute to saving the earth. Her stories never truly conclude; they
> generate new selves. The text breaks out of itself to become alive and spill into
> the "real" world.[52]

Atwood was named Humanist of the Year by the American Humanist Association in 1987 —

in the sense of non-religious humanist — after the publication of *The Handmaid's Tale*.[53] She

describes herself as a strict agnostic: 'absolutely strict'.[54] At one time, she explicitly identified

herself as a 'doctrinaire agnostic', which she describes as a person who 'believes quite

passionately that there are certain things that you cannot know, and therefore ought not to

make pronouncements about. In other words, the only things you can call knowledge are

things that can be scientifically tested.'[55] Her views have apparently become more nuanced,

conceivably in response to the rise of the New Atheists, listed in Arthur Bradley and Andrew

Tate's study of the New Atheist novel as Sam Harris, Daniel Dennett, Richard Dawkins, and

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50 A Rocha Canada (0:45-1:08).
51 Deborah C. Bowen, *Stories of the Middle Space: Reading the Ethics of Postmodern Realisms* (Montreal, QC: McGill-Queen's University Press, 2010).
52 Zhange Ni, 'Wonder Tale, Pagan Utopia, and Margaret Atwood's Radical Hope', in *The Pagan Writes Back: When World Religion Meets World Literature* (Charlottesville, VA: University of Virginia Press, 2015), p. 105.
53 See Atwood's website for a list of her awards http://margaretatwood.ca/awards-recognitions/ [accessed 2018-07-29].
54 Andrew Tate, 'Natural Lore', *Third Way*, 33.7 (2010), 26–31; Ni, p. 97, also notes an alternate self-description of Atwood as a "pessimistic pantheist".
55 Warren Allen Smith, *Who's Who in Hell: A Handbook and International Directory for Humanists, Freethinkers, Naturalists, Rationalists, and Non-Theists* (New York, NY: Barricade Books, 2000), p. 59.

Christopher Hitchins. Bradley and Tate regard New Atheism as different from "old" atheism only in its 'intellectual crudity', adding that 'it is a distinctly pre-Nietzschean atheism'.[56] The 'crudity' of the New Atheists can be understood in two ways; firstly, as mistaken in the overwhelming insistence on a narrow epistemological position which holds that unless something is scientifically verifiable it is untrue or meaningless, and secondly, as insisting that an end to religious feeling and affiliation would mean an end to fundamentalism. I describe Atwood's positioning as a response to the New Atheists because of her similar insistence on the verification of evidence for the "God hypothesis", while interpreting this as a case for agnosticism. Finally, whenever Atwood has publicly commented on religion since the publication of *The God Delusion* (2006), she has made reference to Dawkins and his arguments, normally to introduce distance between them. In one notable interview on *Newsnight*, during a conversation about the legacy of Charles Darwin, she went toe-to-toe with Dawkins over the necessity of using religious feeling to motivate people to join environmental causes.[57]

Because of Atwood's environmental activism, and the green themes of the *MaddAddam* trilogy, as with the Crakers, scholars have seen the Gardeners as the moral heart of the text. Bowen argues that

> It is obviously significant that Adam One's sermons echo many of Atwood's environmentalist views as expressed elsewhere — for instance, on the vital necessity of caring for the oceans; the importance of knowing how to forage

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[56] Arthur Bradley and Andrew Tate, *The New Atheist Novel: Fiction, Philosophy and Polemic after 9/11*, New Directions in Religion and Literature, 1st edn (London: Continuum, 2010), p. 2.

[57] *Newsnight* broadcast Friday 11 September 2009; a clip of the relevant segments, also featuring poet Ruth Padel and the Reverend Richard Coles, can be viewed on the BBC website http://news.bbc.co.uk/1/hi/programmes/newsnight/review/8256949.stm and http://news.bbc.co.uk/1/hi/programmes/newsnight/review/8257006.stm [accessed 25 November 2016]. The discussion, which focuses on the release of the film *Creation* (2009), starring Paul Bettany and Jennifer Connelly, is fascinating because it belies to some extent the 'crudity' ascribed to Dawkins and is a genuine discussion between extraordinary minds on a fascinating subject.

for edible plants; and the disastrous destruction of the ecosystem of the Amazon River basin.[58]

Indeed, Anna Lindhé argues that the Gardeners constitute 'a community — which provides a basis for ethics — [which] is exactly what is missing in Atwood's *oeuvre*.'[59] According to Carol Osborne, this community fosters a 'spiritual vision' in the text, which taps into the New Age movement; Osborne attributes the loose, affiliate structure of the Gardeners to these roots.[60] Describing these groups in terms of cells, Osborne suggests that Atwood

> stresses their close connection to nature, the organic quality of their development as a movement, and their trait of functioning as one organism even though they are made up of and led by people whose views may not always agree.[61]

Other critics have rejected this view, arguing instead that the Gardeners 'embrace rather than eliminate hierarchy'; according to Alison Dunlap the 'clear hierarchy — attached, no doubt, to the religious inclinations of the God's Gardeners — differentiates the ecotopia of the Gardeners from that which Crake seeks to create by eliminating hierarchy.'[62] In as much as they are modelled on historic dissenting Christian groups, especially utopian groups such as the Moravians, what should be expected is not cessation of hierarchy, but a radical

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[58] Bowen, 'Endings', p. 695.

[59] Anna Lindhé, 'Restoring the Divine within: The Inner Apocalypse in Margaret Atwood's *The Year of the Flood*', in *Margaret Atwood's Apocalypses*, ed. by Karma Waltonen (Newcastle upon Tyne: Cambridge Scholars Publishing, 2015), p. 51.

[60] Carol Osborne, 'Compassion, Imagination, and Reverence for All Living Things: Margaret Atwood's Spiritual Vision in *The Year of the Flood*', *Margaret Atwood Studies Journal*, 3.2 (2010), p. 33 <https://english.sxu.edu/sites/atwood/journal/index.php/masj/article/view/45> [accessed 23 January 2018].

[61] Osborne, 'Compassion, Imagination, and Reverence for All Living Things', p. 33; others, such as Barbara Korte, 'Fundamentalism and the End: A Reading of Margaret Atwood's *Oryx and Crake* in the Context of Last Man Fiction', in *Literary Encounters of Fundamentalism: A Case Book*, ed. by Klaus Stierstorfer and Annette Kern-Stähler (Heidelberg: Universitatsverlag Winter, 2008), pp. 151–63 suggest that cells may instead refer to terrorist cells.

[62] Alison Dunlap, 'Eco-Dystopia : Reproduction and Destruction in Margaret Atwood's *Oryx and Crake*', *The Journal of Ecocriticism*, 5.1 (2013), 1–15 (p. 13), n.3.

transformation of orthodox norms.[63] The God's Gardeners also create parallels with a significant group of eco-feminist eutopias produced in the 1970s and 1980s, such as Joan Slonczewski's *Door Into Ocean* (1986), which focuses on a pacifist feminist society of genetic engineers who have adjusted their biology to their ocean world.[64]

For critics who are receptive to the portrayal of the Gardeners, their hymns represent a key piece of evidence. Not only are these devotional pieces included in *The Year of the Flood*, they were also set to music by Atwood's friend and collaborator Orville Stoeber.[65] For Snyder, it was only 'after hearing several of the hymns sung […] [that] I came around to finding them an essential part of Atwood's satirical yet affectionate treatment of this sect.'[66] Not all critics have agreed; Philips, for instance, finds them 'tedious to read', and suggests that 'even the best of gospel choirs could not render credible as song.'[67] The production of a CD of recordings for devotional use transforms these purely fictional hymns into something one might sing as worship — during the A Rocha interview, Atwood sings "We Praise The Tiny Perfect Moles" for the audience.[68] As noted by York, the hymns, as well as 'themed T-shirts, tote bags, […] [and] ringtones' were all marketed for the release of the book; 'all of this is a dramatic step further into merchandising than "Atwood Inc." has gone before.'[69] The profits from this merchandising, however, goes towards ecological charities. York suggests that Atwood uses the charitable donations of the profits to ward off dilutions of her cultural

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[63] For further discussion of such groups, especially Moravians, see Seth Moglen, 'Excess and Utopia: Meditations on Moravian Bethlehem', *History of the Present*, 2.2 (2012), 122–47.

[64] Joan Slonczewski, *A Door Into Ocean* (Rockville, MD: Arc Manor, 2016); for further discussion of such eutopias, see Lucy Sargisson, *Contemporary Feminist Utopianism* (London: Routledge, 1996).

[65] York reports that Stoeber is 'the husband of Atwood's long-time agent, Phoebe Larmore – yet another instance of the interlaced relationships in Atwood's professional life.' *Margaret Atwood and the Labour of Literary Celebrity* (Toronto, ON: University of Toronto Press, 2013), p. 143.

[66] Snyder, 'It's the End of the World As We Know It', p. 20.

[67] Dana Phillips, 'Collapse, Resilience, Stability and Sustainability in Margaret Atwood's *MaddAddam* Trilogy', in *Literature and Sustainability*, Concept, Text and Culture (Manchester University Press, 2017), pp. 139–58 (p. 147) <http://www.jstor.org/stable/j.ctt1wn0s7q.14> [accessed 8 January 2018].

[68] A Rocha Canada (12:18).

[69] York, *Labour*, p. 140.

capital. She recounts a change of heart by journalist John Barber, who began by inveighing against Atwood's social media-charged book tour, but in a piece written only a few weeks later, describes it instead as the work of an 'author-as-activist', 'busy spreading hope in the same straightforward spirit as her silly/holy Gardeners'.[70] Thus, the attribution of broader activism, according to Barber, is dependent on the figures of the Gardeners, and the merchandise they allow Atwood to sell on behalf of environmental charities.

However, it becomes clear that, like the Crakers, we are not supposed to take the Gardener way of life and begin practising it ourselves, even if we are supposed to endorse their willingness to live in an ecologically friendly way. If the Gardeners represent a eutopian space in the trilogy, it is closed as the narrative unveils more about them. Critics such as Lindhé and Osborne are too willing to see a eutopian reprieve to the trilogy's dystopian view, but the Gardeners are, as I argued in Chapter 4, fundamentally linked to Crake's plan to wipe out humanity.

> If anything, the God's Gardeners are a radical cult of wilderness survivalists, and though by the end of the novel they are clearly the only ones best equipped to endure the deprivations and dangers of the "new world", Atwood does not expect us to take seriously, or even accept, their version of environmental apocalypticism.[71]

Atwood's goal is not to start her own religious group, but she does acknowledge that religion is a significant motivator to the majority of human beings; therefore it should be directed in an environmentally friendly way. The problem with the Gardeners is that they want radical,

[70] Lorraine York, '@Margaret Atwood: Interactive Media and the Management of Literary Celebrity', 2012, p. 141 <http://s3.amazonaws.com/academia.edu.documents/7330693/Atwood%20MLA %202012%20paper.doc? AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1486306193&Signature=2P5gyzH5bg necEfBhgWEdxOt9pY%3D&response-content-disposition=attachment%3B%20filename %3Dat_Margaret_Atwood_Interactive_Media_an.doc> [accessed 5 February 2017].
[71] Hope Jennings, 'The Comic Apocalypse of *The Year of the Flood*', *Margaret Atwood Studies*, 3.2 (2010), 11–18 (p. 13).

apocalyptic, social change, and thus represent the same kind of sweeping drive that is represented in Crake. Bouson connects it directly to the logic of Earth First!ers, who see themselves as a

> "chosen people" whose "ecological consciousness" would allow them, after the biological meltdown of the coming environmental apocalypse, to "create a new, perfect, and ecologically sustainable world" and thus to aid in the recovery of the "Pleistocene, the golden age when 'humans knew their rightful place in the big picture'".[72]

Coupled to this is Sheckels' view which argues that the whole mode of life of the Gardeners is a fraud: they operate high-tech bio-sabotage under a cloak of secrecy using technology they have officially disavowed; their happy community is riddled with sexual violence and abuse; the "all-natural" products that they sell are scavenged from the discarded remains of spas and drinking establishments; 'the Gardeners' vinegar is just as suspect as the corporations' "secretburgers".'[73] Their theology mandates survival by isolation, not by changing popular attitudes. Though they supposedly preach to the masses, the only time we see them conduct outreach work is the parade that passes the Secret Burger franchise where Toby works; this, it turns out, is not a genuine piece of proselytizing, but a mission to rescue Toby at Rebecca's request. They are a millenarian movement, and their actions behind the scenes, it is suggested in *MaddAddam*, are to bring about the very Waterless Flood that they have prophesied. This is not something that Atwood intends we should accept, and the totalising view that they express, in its puritanical excess, is the primary reason that we should reject their aspirations. Temperance is necessary for our survival, and Atwood recognises that religious belief is a critical motivator for achieving a sustainable society; nonetheless, the road to hell is paved

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[72] J. Brooks Bouson, 'A "Joke-Filled Romp" through End Times: Radical Environmentalism, Deep Ecology, and Human Extinction in Margaret Atwood's Eco-Apocalyptic MaddAddam Trilogy', *The Journal of Commonwealth Literature*, 51.3 (2016), 341–357 (pp. 347–48).

[73] Sheckels, *The Political in Margaret Atwood's Fiction: The Writing on the Wall of the Tent*, loc.3628.

with utopian narratives, and the Gardeners represent another such narrative which is open to critique.

Twitter: Active witnessing

> The Twittersphere is an odd and uncanny place. It's something like having fairies at the bottom of your garden. How do you know anyone is who he/she says he is, especially when they put up pictures of themselves that might be their feet, or a cat, or a Mardi Gras mask, or a tin of Spam?[74]

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Lorraine York argues that Atwood cultivates her social capital and literary celebrity in order to more effective pursue her social and political agenda. One of the key technologies she has used to pursue this this has been Twitter, the now famous social media platform. Atwood joined in July 2009, at which point Twitter was seeing between 2.5 and 35 million tweets a day.[75] Though Twitter started in 2006, it grew slowly for the first three years, and only began to gain popularity in 2009, but saw its most significant increase in tweets per day between 2011 and 2012. Atwood was thus a relatively early user of the social media service, and has remained a consistent and regular user since. At the time of writing, she has tweeted 42,983 times, and has 1,929,544 followers.[76] Based on the 140-character maximum size of tweets, Atwood has used Twitter to write a maximum of approximately 6 million characters; to put that in perspective, if Atwood had written all of those tweets as continuous prose narrative,

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[74] Margaret Atwood, 'How I Learned to Love Twitter', *The Guardian* (London, 7 April 2010), section Comment is free, para. 8 <http://www.theguardian.com/commentisfree/cifamerica/2010/apr/07/love-twitter-hooked-fairies-garden> [accessed 3 September 2014].

[75] *Internet Live Stats* website, <http://www.internetlivestats.com/twitter-statistics/> [accessed 17 November 2016]

[76] Margaret Atwood's twitter page, <https://twitter.com/MargaretAtwood> [accessed 27th July 2018] <https://twitter.com/MargaretAtwood>.

that would be equal to just over seven average Atwood novels in length.[77] Thought of as such, this constitutes a sizeable body of Atwood's writing which has only recently begun to be explored, by critics such as Lorraine York and Pamela Ingelton. A large number of these tweets are not wholly authored by Atwood but are constituted by retweets or comments on retweets. Unfortunately, it is not feasible to study all of Atwood's tweets to determine the ratios of uncommented retweets to those which are solely authored by Atwood or are commented retweets, not simply because of the scale of the endeavour, but also because Twitter's API does not currently allow users to access more than the last 3,200 tweets of any other user, though Twitter does store them all. For scholars studying Atwood's twitter output, its very increase in size causes its history to disappear from sight.[78]

Consequently, my overview of this corpus will be partial, and briefer than it deserves. Atwood has not used Twitter as an avenue of creative writing, or at least not significantly. Searches of #flashfiction and #microfiction, two types of creative writing which are particularly popular on Twitter, show only examples of brief stories widely attributed to Atwood (such as 'Longed for him. Got him. Shit.') rather than such works appearing on her own Twitter feed. In the economy of Atwood's substantial and diverse online presence, Twitter is primarily used for advocacy, on behalf of a wide range of causes, political and cultural. It thus forms an important part of Atwood's own witness to the present moment. A set of tweets from 16 November 2016 provide a good survey of what Atwood's tweets

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[77] My working is as follows: there are between 300 and 400 words per page in a Virago-published Atwood novel, and an average word is five characters plus a space. That yields approximately 2100 characters a page. An average between *Surfacing* (248 pages) and *The Robber Bride* (406 pages) gives an average novel a character count of approximately 852,600.

[78] Pamela Ingleton, '"Mechanisms for Non-Elite Voices:" Mass-Observation and Twitter', *Flow.Culture*, 2010 <http://www.flowjournal.org/2010/05/mechanisms-for-non-elite-voices/> [accessed 16 June 2017] reports that in 2010 the Library of Congress acquired all Twitter content since 2006. After the increasing volume of tweets made archiving the whole output of Twitter too taxing, the Library changed its policy to archive only select pages from 1 January 2018. <https://blogs.loc.gov/loc/2017/12/update-on-the-twitter-archive-at-the-library-of-congress-2/?loclr=twloc> [accessed 5th August 2018].

usually contain.[79] This excerpt, reproduced in Appendix 3, includes three calls for her

audience to sign petitions, and one message promoting a cultural event in Winnipeg. To put

these in context, it is necessary to point out that the results of the US election had been

announced only the week before, confirming Donald Trump as the 45th US President.

Atwood's commentary, in the form of both written comments and retweeted items, was

condemnatory, and focused on the outcome for potential set backs to progress on the threat of

climate change. The two links below that item lead to a petition to institute clearer laws in

Canada regarding the status of charities and their abilities to conduct various kinds of

political activity. The petition specifically mentions 'the launch of harassing and costly audits

of charities', which may be more than a reference to July 2014, when the Canadian Revenue

Agency launched a political activities audit into PEN Canada, a charity with which Atwood is

closely involved. Other charities that have suffered similar audits include Amnesty

International Canada and the David Suzuki Foundation. The final link is a promotion for a

performance of *The Watershed* by Annabel Soutar, a Montreal-based playwright — *The

Watershed* uses 'techniques of epic theatre and theatrical naturalism to explore controversy

surrounding the defunding of the Experimental Lakes Area in Ontario'.[80] Other tweets posted

on the same day refer to: Atwood's commentary on Leonard Cohen (replayed on BBC6Music

because of Cohen's recent death); an RSC performance of *The Tempest* which Atwood

attended at the Swan in Stratford-Upon-Avon; the fact that November is Manatee Awareness

Month; and a post praising Barack Obama's presidential record. A final function fulfilled by

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[79] These functions are summarised by York, *Labour*, pp. 147–53.

[80] Joel Fishbane, 'Mother Playwright and Her Children: Annabel Soutar's The Watershed: Canadian Theatre Review: Vol 166, No', *Canadian Theatre Review* <http://www.utpjournals.press/doi/abs/10.3138/ctr.166.012> [accessed 17 November 2016]; see also Robert Everett-Green, 'The Watershed: Montreal Playwright Tackles Our Most Precious Resource', *The Globe and Mail*, 3 July 2015 <http://www.theglobeandmail.com/arts/theatre-and-performance/the-watershed-documentary-play-peels-back-ideology-on-water-issues/article25252748/> [accessed 17 November 2016].

Twitter, York suggests, is that it has acted as a platform for Atwood to express her sadness at the death of colleagues and friends; it has thus 'provided obituary writers with pithy comments on the departed: a somewhat morbid application of the medium.'[81]

If the above can be taken as an indication of Atwood's routine use of Twitter, then the pattern of activism is clear. Moreover, it illuminates further how Atwood's model of activism is one that revolves around persuasion, empathy, and community as means of making substantial changes. It seems to me that we can account for Atwood's use of Twitter in this fashion in two ways; firstly, the service encourages economy. Its enforced brevity ensures that every post must maximise its effective use of language, which, to a poet like Atwood, must represent a fascinating and familiar challenge. Beyond that, its rise to near ubiquity, and especially the presence of institutions on Twitter, have allowed a kind of public-yet-personal lobbying to arise which would not have been possible in quite the same way prior to the rise of the service. When Atwood tweets about an ongoing scandal concerning the suspension of Professor Steven Galloway, it can be addressed to all the parties concerned, not only fellow novelist Joseph Boyden, but also the University itself - and all this while on tour in the UK where she 'can't do interviews' and thus access her platform in the mainstream media.[82]

Beyond the purely political, in a number of interviews the point that Atwood invariably raises as one of Twitter's chief benefits is that it allows people to share the works of unknown, or nearly unknown, creators and writers. 'Twitter is […] good for promoting other people's work' rather than one's own, Atwood claims, and in that same interview she urges people to share their art with the world because 'You never known when the Blue Fairy will

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81 York, *Labour*, p. 151.
82 Margaret Atwood, tweet, <https://twitter.com/MargaretAtwood/status/799214753679888384?lang=en-gb> [accessed 17 November 2016]. The scandal in question continues to unfold, and in this tweet Atwood describes her response to the backlash.

descend and touch you with the magic wand.'[83] Atwood remarks that one of the things that happens on Twitter, 'people yelling at other people', constitutes a form of publishing and that people should be careful about libel implications. 'People are interacting in these unprecedented sorts of ways', remarks Atwood, and while we could speculate about where this will end up, 'we're in the early stages of this'. As a prolific and prominent user of social media, Atwood is kept abreast of developments in a wide range of fields without any kind of filter; for instance, she reports that she is alerted to all sorts of scientific developments as papers are released because people recognise them as, for instance "something Crake would do", and tweet them to her. In using Twitter in this way, Atwood draws upon the expertise and interests of all of her followers as a new kind of group research tool. Ask on Twitter, and you'll get twenty answers, and a few of them might even be right - but they'll all offer interesting ways to think about a problem. Treading the line between libel and hate speech, and these other more positive types of uses, Atwood suggests that the tool is useful — it is instead a question of what use we put it to.

Fears that Twitter may be useful for engaging in broader political struggles but useless at connecting us with the people in our own towns and villages are ill-founded. Atwood has demonstrated this numerous times, sharing art and cultural events happening in Toronto as an ambassador of its vibrancy as an international multicultural city. But Atwood has also taken responsibility for things happening in her own back yard: for instance waging a campaign, largely based on Twitter, to prevent the building of an astroturf over a local green site by the University of Toronto. She threatened to write them out of her will if they destroyed the grass field, because 'Plants make oxygen. Plastic, not.' Her threat read:

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[83] Broadly, *Iconic Author Margaret Atwood on Abortion, Twitter, and Predicting Everything We're Doing Wrong*, 2016 <https://www.youtube.com/watch?v=PPPxR3PcXkQ> [accessed 26 September 2016].

> So, @UofTNews: as a soon-to-be dead alum w. $ to leave, am I annoyed by
> the anti-green plan? Y!

Linguistically, this demonstrates Atwood's familiarity with the abbreviated forms of writing common online, and demonstrates her eloquence even in such constricted circumstances. *The Globe and Mail* describes Atwood's tweets as 'rallying her legions of social-media followers against the University of Toronto's plan'.[84] A piece in the *Toronto Star* on the same incident quotes Professor Stephen Scharper, who connects this incident to Atwood's other acts of activist oversight:

> Atwood has a long and feisty history of challenging certain traditions here at the University of Toronto that need to be challenged," he said. "When she took on (Toronto Mayor) Rob Ford in the library closures it just shows she has just a lot of wonderful spirit and a real commitment to what she believes in," said Scharper.[85]

The piece ends by re-emphasising Atwood's role as a consciousness raiser:

> It means a lot not just because (Atwood) is famous but people have a lot of respect for her. She has this intensely ethical position, particularly with regard to environmental issues. She's been helping people become more aware of what's at stake.[86]

Scharper's comments echo the commitment to ethics that Atwood scholars have found in Atwood's own writing, and which I have explored in this thesis. In particular, her engagement with Twitter can be read as a form of witnessing, in which we see Atwood as reflecting her times and expanding our view of the world. Like Offred, she is implicated in the world that she lives in, and her relative security as a member of the global prosperous

[84] James Bradshaw, 'Margaret Atwood Leads the Charge against Fake Turf at U of T', *The Globe and Mail*, 13 March 2013 <http://www.theglobeandmail.com/news/toronto/margaret-atwood-leads-the-charge-against-fake-turf-at-u-of-t/article9757636/> [accessed 28 November 2016].

[85] Tess Kalinowski, 'The Literary Icon Suggests the University of Toronto Could Write Itself Right out of Her Will If It Goes with an Astroturf Playing Field.', *The Toronto Star*, 12 March 2013, paras 7–8 <http://www.thestar.com/news/gta/2013/03/12/margaret_atwood_tweets_opposition_to_u_of_ts_plan_for_artificial_turf.html> [accessed 31 July 2014].

[86] Kalinowski, para. 11.

makes her partially complicit in that world. Her acknowledgement of her complicity, and her drive to speak out about such issues give her something of the same power as Offred, Snowman, and Toby. In her writing on Twitter as much as in her novels, she 'is both an eye-witness and an I-witness, the one to whom personal experience happens and the one who makes experience personal for others.'[87]

Pledges: *In The Wake of the Flood* and *Angel Catbird*

> MA: Let's go way, way, way, way back in time. I am the person who won the prize in Sunday School for the temperance essay.
>
> Lorna Dueck: [In astonishment] I never knew that.
>
> MA: Yes. It was illustrated. It would show what awful things would happen to you if you drank, such as that your nose would get very big and red, and you would die in the snow.[88]

Atwood has utilised another model to attempt to create a moral community, which, like narrative, functions by appeal to the personal rather than directly seeking political change. This is the pledge: a solemn promise made in public to do something or to refrain from doing something. The pledge thus encourages temperance in two stages, which can be understood in the separation between continence and temperance I outlined in the introduction. At first, pledges are mechanisms for constraining desire; they habituate one to acting in a particular way. If the new act becomes truly habitual, then it becomes a settled characteristic, which replaces the excessive desire. The second step is internalising the reasons behind the pledge; as one repeatedly exercises the habit of temperance, one reflects on the purpose of the pledge, and internalises the message it contains, which, in turn, shapes the nature of the desire. Thus,

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[87] Margaret Atwood, 'An End to an Audience?', *The Dalhousie Review*, LX.3 (1980), 415–33 (p. 425).

[88] Lorna Dueck, *Context with Lorna: God's Gardeners*, 2014 <https://www.youtube.com/watch?v=NAWTAd_G9K0> [accessed 19 November 2016].

changes in behaviour on one issue can change excessive desire more radically, and this shift

in patterns of desire enables one to have the right desire in a broader pattern of activity, i.e. to

come to possess fully the virtue of temperance. Publicly conducted pledges have a long

history, from their contemporary use in the sex education of teenagers in the evangelical

United States of America, through the Temperance movement (where abstinence from

alcohol was known simply as the Pledge), and further back into feudal acts of pledging

allegiance to one's feudal lord. In her study of the history of Canada from 1815 to 1840,

Atwood traces how changes in the view of alcohol reflected wider changes in society - 'the

first Tory custom to weaken was drinking' as the temperance movement made in-roads in

Canada towards the 1840s, in tandem with which public hangings fell in popularity, and it

became important to provide 'soup as well as bread' for prisoners.[89] As the central feature of

the radical, predominantly working class, and feminist Temperance movement, the Pledge

was an important tool in the ongoing campaign against domestic violence.

In 2009, Atwood packed her bags and flew to Edinburgh to begin her latest book tour,

in this case in support of her recently published novel, *The Year of the Flood*. It was

something that she had done many times before, as her cartoon series "Book Tour" will

attest. In those comics - humorous rewritings of Atwood's own experiences - the author is

disenchanted with the process of drumming up attention for their work. Reingard Nischik

reproduces several of these cartoons in her seminal work on Atwood as a cartoonist,

Engendering Genre (2009).[90] In "Book Tour Comics vol.1,963", Atwood is being

interviewed about *The Robber Bride*. "Who is Atwood in the story?" asks the bearded

interviewer — "Zenia", the author replies, which flusters the interviewer, who imagines

Zenia to be a buxom, coiffured femme fatale. In another Book Tour comic, Atwood drags a

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[89] Margaret Atwood, *Days of the Rebels* (Toronto, ON: Natural Science of Canada, 1977), p. 65.
[90] Reingard M. Nischik, *Engendering Genre: The Works of Margaret Atwood* (Ottawa, ON: University of Ottawa Press, 2009), pp. 233, 236, 238.

heavy book on a handcart named only through malapropisms ("The Blind Pig", "The Blind Bit of Difference", "The Blind Assertion"), which wins the "Hooker prize". In this tour, the interviewer receives another sharp response from Atwood, and wishes that he were on the sport desk instead. All of this paints the book tour as an object of drudgery, compelled by contemporary publishing practices, and nothing to do with the artistic aims of the works so promoted.

However, with the book tour for *The Year of the Flood*, Atwood took a different approach, and one that draws an immediate connection between the *MaddAddam* trilogy and Atwood's personal political advocacy. This tour was so different that it was filmed and turned into a documentary, *In the Wake of the Flood* (2010), directed by Ron Mann.[91] The documentary follows Atwood as she proceeds through the various stages of her international tour, travelling from city to city and country to country, reading from her new work to crowded venues in Edinburgh, London, Manchester, Toronto, Vancouver, and Sudbury, amongst others. The documentary entwines the tour and Atwood's creative work with the whole of her biography, from reflections about how her father's positions on environmental activism had influenced her ("the lunatic fringe"), through events like Terry Fox's cross-Canada run, "The Marathon of Hope", to her life with her partner, Graeme Gibson. Intercut with these scenes are film footage of several famous environmentalists of the twentieth century, who have become saints to the God's Gardeners: for instance, footage of Rachel Carson calling for evidence about the dangers and drawbacks of pesticide use, and footage of Euell Gibbons cooking food he'd gathered from the surroundings and lambasting the trend towards distance from food production. In her voiceover introduction, Atwood suggests that for this tour she wanted to do something different, to make changes in her own life, and to try and reach out to others to make changes in theirs; we can see this as Atwood using her

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[91] Ron Mann, *In The Wake Of The Flood* (Sphinx Productions, 2010).

cultural capital to make ethical interventions in a similar way to her fiction. She describes it as 'my attempt to support the continued life of the birds of the skies.'[92] This is not 'only birds threatened with extinction, but all birds, because all birds are now really in quite a lot of trouble.'[93] The tour was unorthodox because it was carried out, as far as possible, with green principles at the forefront. Money raised by the tour went to several charitable organisations, but primarily to BirdLife International, of whom Atwood is a keen supporter. Atwood used the phrase "For the birds" as a tagline for this tour, and the line appears on posters and advertising material for *In the Wake of the Flood* too. In putting the phrase front and centre, Atwood is trying to reclaim it as an environmentalist slogan, rather than a flippant excuse to ignore something; this continues her work in *For The Birds* that I discussed in Chapter 3. The central idea was that the tour should have the lowest carbon footprint possible — so Atwood travelled to each place alone and by public transport, and each stint was carbon offset by a company in Canada (a policy which has now been added to the O.W Toad Office "Green Policies"). Atwood became a vegetarian for the duration of the tour on the same basis as the God's Gardeners — which meant that she wouldn't eat meat 'unless I get really hungry'. To vegetarians and vegans this seems like a weak position, but Atwood comments that, when the Gardeners' vegetarianism fails, they turn to 'the bottom of the animal food chain. I won't go into what that entails, but we may all be driven to it. Let us hope not.'[94] Atwood built another website for *The Year of the Flood* to keep it separate from the publisher's press website because 'I wanted to do some non-publishing things on mine, such as raise awareness of bird vulnerability and heighten Virtuous Coffee Consumption.'[95]

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[92] Mann, (1:41-2:07).
[93] Mann, (2:59-3:10).
[94] Margaret E. Atwood, 'The Battle Between Action and Belief', *Words That Matter*, 2017, para. 28 <https://medium.com/wordsthatmatter/the-battle-between-action-and-belief-49bec7456341> [accessed 7 September 2018].
[95] Margaret Atwood, 'Twitter', para. 2.

To make the tour more engaging, at each location a group of local volunteers performed a selection of material from *The Year of the Flood*, and sang some of the Gardener's hymns. In a recorded performance of her poem "The Weather", which furnishes the epigraph for this section, and which Atwood performed as a consciousness-raising piece at a climate change charity event, Atwood says that "it is sad that we have the occasion to do this event, but very wonderful that so many people came together in order to do it" - and this might well stand for *The Year of the Flood* book tour as well. In some settings, various celebrities and actors also contributed their time. In Edinburgh, for example, the part of Adam One was played by the former Bishop of Edinburgh, Richard Holloway, and the London performance featured Roger Lloyd Pack and Diana Rigg: in these cases, those collaborating with Atwood wanted to lend their public profiles to the charitable causes espoused. The volunteer spirit that created these performances is also visible in a number of other guises, as when Atwood visits the Kingston Community Harvest Group, who provide a *MaddAddam*-themed meal made from things grown in their communal gardens. Of the signs brought to the attention of the camera, perhaps the most significant bears the legend "Secret Burger". However, this particular production reverses the logic of the Secret Burger, both by being forthcoming about its contents ('All Natural Beef'), and by including only locally sourced, environmentally sustainable meat in its recipe. One of the most intimate moments of the documentary is captured when Atwood returns for a brief stopover in Toronto before moving to the next reading, and recuperates by enacting that maxim, "we must cultivate our garden". Her own garden, filled with luxuriant foliage, is evidently a reflection of Atwood's views on the importance of both growing local food, and providing shelter and food for wildlife, particularly birds. This garden is also clearly the inspiration for Cleo's walled garden in *The Happy Zombie Sunrise Home*.

It is worth recognising that the theatrical performances have not met with uniform

praise; Csicsery-Ronay, in a conference report for *Science Fiction Studies* describes a

performance in less charitable terms as 'an embarrassingly amateurish homage to *The Year of*

the Flood, staged with choral reading and acoustic guitar-songs, all of which resembled a

small town's middle-school pageant for a visiting writer or a filk session at a local Con.'[96] It

may be that Csicsery-Ronay's views may have been influenced by his hostility to her thesis

in *In Other Worlds*:

> Atwood was treated with great deference, though most of what she contributed
> to the discussions was glib and banal. […] Her superficial pronouncements
> were frustrating enough to provoke snarky comments from the gallant [China]
> Miéville and a velvet-smooth put down by the angelic [Joyce Carol] Oates
> ("Margaret doesn't have all the answers, but you can't tell").[97]

However, when seen in the context of Atwood's environmental practice, it is obvious that

these performances are supposed to mobilise the local community, and not necessarily to

aspire to the highest production standards that the stage is capable of producing. It is

important these performances were created by the community, and that the community was

not forced to play the role of the anonymous chorus to a band of professional actors; part of

Atwood's point is to empower local communities to win back control over their

circumstances. It thus plays out the logic of the virtue ethical reading of the trilogy; by

participating in shaping the story and its performance, the community is prompted to action.

If the aim of the book tour was more than simply celebrating *The Year of the Flood*, which I

contend that it was, then we must recognise that much of the force of these performances

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[96] Istvan Csicsery-Ronay, 'Report from the Key West Seminar', *Science Fiction Studies*, 39.2 (2012), 353–57 (p. 357). Filk is a genre or culture of music created as a celebration of an sf fandom. As a consequence of this, filk music is welcoming of amateur performance, and etiquette dictates that criticism is not appropriate except to give tips or suggestions.
[97] Csicsery-Ronay, 'Report', p. 357.

comes from knitting together groups of activists and fans as a stage company, and that the transformational capacity of these performances comes from the participation.

The climax of these performances would be Atwood's request that the audience members present take a pledge to drink only organic shade-grown arabica coffee. While on tour she always carried such coffee, which is bird-friendly, and exhorted those attending the readings to sign up to only drink coffee produced in this way. *The Year of the Flood* website carries a page specifically dedicated to this aspect of Atwood's activism, with the rationale that 'If you can't change anything else in your life, you can probably change this, and make a real impact'.[98] During one of the readings, the pledge was administered as follows:

> I hope you will all now take the following pledge: I promise never to drink anything but shade grown organic coffee because the other kind is a big killer of migratory song birds. [Atwood gestures]. Hands in the air. Yes, yes, yes, thank you.[99]

In her interview with Leah Kostamo, Atwood explains more fully what the implications of drinking shade-grown coffee actually are:

> If you drink only shade-grown coffee, and any coffee that is arabica is shade-grown, you're helping to preserve the canopy of forests which are otherwise cut down. So if you drink only shade-grown you're encouraging the preservation of forests — tropical and sub-tropical forests. If you can then manage to drink fair trade, organic, and shade-grown, you then get extra points.[100]

Making the pledge publicly causes the participants to stake their reputations on abiding by their promises. This is one of the features that make pledges function effectively, acting to prevent those who take them from backsliding — though, of course, as George Eliot once

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98 "The Bird-Friendly Coffee Page" on *The Year of the Flood* website <http://yearoftheflood.com/the-bird-friendly-coffee-page/> [accessed 14 November 2016]
99 Mann (33:50-34:15).
100 A Rocha Canada (21:00-21:32).

wrote, 'a moment is wide enough for the loyal and mean desire, for the outlash of a murderous thought and the sharp backward stroke of repentance.'[101] Atwood's application of the pledge is not stringent, however. For one, there is no mechanism for holding those who pledge to account; it relies purely on the psychological commitment to keep to one's promises to keep the adherent from abandoning their pledge. It may, therefore, be tempting to dismiss the device of the pledge as a joke or a harmless eccentricity, perhaps as a bit of audience participation to keep the punters engaged during long readings. However, that small act of engagement may be enough to succeed in making the listeners think critically about their habits of consumption; doing so on a small scale prompts larger 'questioning, dialogue, and community.'[102] Atwood capitalises on this pledge to drive home her message that it is up to us all, in our daily lives, to make real the temperance that will make our lives ecologically sustainable. As an everyday ritual for many throughout the world but particularly the globally prosperous, the reminder of the ethics inherent in drinking a cup of coffee serves as a potent reminder of the consequences of our actions with which we must engage; these cups of coffee, then, act as a prompt to keep the pledge fresh in the minds of its adherents. 'Wasn't that easy?' she says: 'Instant virtue!'[103] During and after the tour for *The Year of the Flood*, she would be approached by fans with bags of their local roaster's organic coffee. Inspired by this, Atwood became involved with Balzac's Coffee, with the idea of launching an ethically-sourced coffee that could be sold for charitable causes; thus, as of 2016, the Atwood Blend has become a staple of Balzac's Coffee — a percentage of every sale goes to the Pelee Island Bird Observatory.

I interpret this whole episode as an example of the way that Atwood fosters a community between herself and her fans, and in doing so issues them with a call to action. It

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[101] George Eliot, *Daniel Deronda* (London: Zodiac Press, 1987), p. 38.
[102] Waltonen, p. 33.
[103] A Rocha Canada (22:00-22:05).

should be noted, at this point, that her preferred call to action is a private one, that tries to alter the quotidian values and practices of her audience, not a call for the banning of non-organic coffee outright, or for any action to be taken by the states or federal government. Thus it mirrors her 'gradualist' opposition to the desire for utopian perfection. Changing cultural values is the aim, and this small token opens the door for other challenges to our acceptance of the normalcy of greed. In the segment of the documentary prior to the pledge scene, Atwood discusses the legacy of Henry David Thoreau, and celebrates his influence on Mohandas Karamchand Gandhi — specifically in relation to the idea of removing one's services as a citizen from the state as a means of protest. In seeking to influence values by literary sympathy and by encouraging her audience to use their power as consumers to force companies into accepting higher ethical standards, Atwood uses the temperance and self-restraint as a technique for affecting political change.

That the mechanism of the pledge is important to her is reinforced by a second pledge that Atwood has more recently begun to administer. Nature Canada have described bird populations in Canada as in crisis: 'The number of Canadian Bird Species at Risk increased 100% between 2001 and 2017.'[104] This means it is a particular problem of the twenty-first century, and that bird conservation, which many assume to be a battle that was "won" by Rachel Carson, is an ongoing war which we appear to be losing. Nature Canada report that this pressure is caused almost entirely by human activities and their consequences; in particular 'Cats are thought to cause the vast majority' of such bird deaths, at 75%. As in *For the Birds*, the *Angel Catbird* trilogy includes a number of sidebars with educational information about cats, the dangers they face in the outside world, and the best way to keep

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[104] "Save Bird Lives!" on Nature Canada's *Cats and Birds* website <http://catsandbirds.ca/backgrounders/save-bird-lives/#sthash.UszQWrWH.dpbs> [accessed 27 July 2018].

them healthy and entertained while keeping them inside. When Atwood describes the genesis of *Angel Catbird*, she writes that

> I now had a burden of guilt from my many years of cat companionship, for my cats had gone in and out of the house, busying themselves with their cat affairs, which included the killing of small animals and birds. These would turn up as gifts, placed thoughtfully either on my pillow instead of a chocolate, or on the front doormat, where I would slip on them.[105]

Part of the motivation for *Angel Catbird* is to allow Atwood to unburden herself of this guilt, and Nature Canada's #SafeCatSafeBird program, which asks cat owners to 'take the pledge' to keep their cats inside, and not to let them roam freely, is a means by which that guilt can be lifted and further lives saved: 'as the pledges mount up, we can hope that there might be an uptick in the plummeting bird counts that are being recorded in so many places.'[106] Thus, Atwood's testimony in this introduction gathers some of the same force as the protagonists of the *MaddAddam* trilogy and *The Handmaid's Tale*; the admission of complicity with the general practice makes her a persuasive witness to the need for change. Even while excoriating the killing of birds, which she notes is something humans typically do by accident, she introduces her own burden of guilt from her pet ownership. Atwood continues to refresh the idea of this pledge using her Twitter page, featuring repeated links to articles about how to keep cats indoors in a fully humane way.

The final note of her introduction is that, 'in my wildest dreams, Angel Catbird and Cate Leone, and maybe even Count Catula, would go around and give something or other — a flag, a trophy? — to schools that had gathered a certain number of safe-cat pledges'. With the addition of this context, the pledge as a function of Atwood's advocacy can be seen not merely as a rhetorical device, or an ironic joke to draw attention to an issue, but also a

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[105] Margaret Atwood, *Angel Catbird*, ed. by Daniel Chabon, 3 vols (Milwaukee, OR: Dark Horse Books, 2016), I, p. 7.
[106] Atwood, I, p. 10.

genuine tool for encouraging ourselves and others to commit to our principles — to connect our theoretical understanding of an issue to our everyday practical lives. Atwood argues we should bring back this somewhat nostalgic practice, and there is evidence that such pledges do indeed improve behaviour.[107] It is an "outering", to borrow an Atwood phrase from another context, of the active reading paradigm described by Waltonen. In 2017 the Canadian Federation of Humane Societies issued a report, *Cats in Canada 2017: A Five-Year Review of Cat Overpopulation*, which noted an increase of 13% in cat owners keeping their cats from roaming unsupervised, from 59% in Nature Canada's 2016 poll to 72%. Nature Canada attributes this increase to 'shelters, humane societies, rescues, municipalities, *Angel Catbird*' and the #SafeCatSafeBird program itself.[108] Since writing *Angel Catbird*, Atwood has continued to share articles related to proper cat care on Twitter, such as Rachel Joy Lewis' blog post "How I Trained My Cat To Walk On A Leash".[109]

In this chapter, I have argued that the standard of temperance that Atwood constructs in the *MaddAddam* trilogy can also be traced through her activism, as she tries to bear witness to the world in its present condition. The solution Atwood posits is, as Sheckels suggests, gradualist and personal. '[S]uspicious of political solutions', she calls for us all to become both eye- and I-witnesses, to expand our moral vision to see what is really there.[110] Wagner-Lawlor argues that '"responsibility" — both individual and corporate, local and global —

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[107] For discussion of the rates and mechanisms of this success, see Sekar Raju, Priyali Rajagopal, and Timothy J. Gilbride, 'Marketing Healthful Eating to Children: The Effectiveness of Incentives, Pledges, and Competitions', *Journal of Marketing*, 74.3 (2010), 93–106; Xiao-ping Chen and S. S. Komorita, 'The Effects of Communication and Commitment in a Public Goods Social Dilemma', *Organizational Behavior and Human Decision Processes*, 60.3 (1994), 367–86 <https://doi.org/10.1006/obhd.1994.1090>; Peter S. Bearman and Hannah Brückner, 'Promising the Future: Virginity Pledges and First Intercourse', *American Journal of Sociology*, 106.4 (2001), 859–912 <https://doi.org/10.1086/320295>.

[108] "An Update on Cats in Canada" <http://catsandbirds.ca/research/an-update-on-cats-in-canada/#sthash.HZ6aoWbl.dpbs> [accessed 27th July 2018].

[109] Margaret Atwood, retweet, <https://twitter.com/RachelLarris/status/822153298539118596> [accessed 29th July 2018]. It should be noted that not all animal welfare socities consider keeping cats inside to be an ethical practice.

[110] Stein, *Revisited*, p. 77.

may be Atwood's great subject', which mirrors her engagement with the other forms of activism I have explored.[111] In an essay written before the release of the other volumes of the trilogy DiMarco argues that because *Oryx and Crake* ends before Snowman decides to save the Crakers or collaborate with the humans in killing them, 'choice and accountability are left in the minds of the readers, although Atwood does guide her readers to contemplate seriously the ethical implications of particular choices.'[112] Unlike her depiction of the God's Gardeners and other activists in the trilogy, Atwood's witness is not passive; through her cultivation of cultural capital and her canny use of social media networks, Atwood's witness reaches a huge audience. Both in her fiction and as a matter of political reality, Atwood opposes the *pleonexia* that is destroying the possibility of human life on the planet. To avoid the necessity of Crake's solution, it is necessary to change now. Thus Atwood celebrates the hopeful signs of the return of the albatross from near-extinction:

> Still, '"Hope' is the thing with feathers," wrote Emily Dickinson. Too often, these days, it isn't. But in the case of the albatross, it is, if we're reading the bird signals right. Or at least it could be; which is the nature of hope.[113]

Hope

> Wherever overtly apocalyptic hope has been literalized it has been proved literally *wrong*; the normative hope, however, cannot be falsified. It can be named: hope for mutual respect in proximate and political relations, justice

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[111] Jennifer A. Wagner-Lawlor, *Postmodern Utopias and Feminist Fictions* (Cambridge: CUP, 2013), p. 86.

[112] Danette DiMarco, 'Paradice Lost, Paradise Regained: Homo Faber and the Makings of a New Beginning in Oryx and Crake', *Papers on Language and Literature*, 41.2 (2005), 170–95 (p. 172).

[113] Margaret Atwood, 'Act Now to Save Our Birds', *The Guardian*, 9 January 2010, para. 22 <http://www.theguardian.com/books/2010/jan/09/margaret-atwood-birds-review> [accessed 10 April 2018].

and mercy upon the land and within the city, for transnational, trans-species healing and renewal. […] This hope can only be verified, however, by being *made true*: spirit practised, materialized, spun, performed.[114]

Atwood's ustopian *MaddAddam* trilogy gestures towards the eutopian even as it revels in the dystopian; as speculative fiction, it is grounded in history and scientific discovery even as it presents a hyperbolic, exaggerated and distorted view of our society. Atwood's ambiguous ustopia — to paraphrase the subtitle of Ursula Le Guin's *The Dispossessed* (1974) — portrays a civilization in trouble, and, rippling outwards, a species in trouble, a world in trouble. The life that flourishes after the Flood is circumscribed; the darker choices have been placed out of reach, and human nature has been de-clawed, disciplined by instinct. Crake's mission to save the world is a success, and the cost has been us — the us of ustopia.

Atwood is famous for concluding interviews, narratives, and essays with more and deeper questions than those asked at the outset.[115] At each temporary ending of the eventual trilogy the reader and the author are left with more questions; *MaddAddam*, the final part in the trilogy, leaves us with yet more. Her novels operate as moral and ethical guardians of the community by asking these questions and framing part of an answer, but they always require the reader to challenge the teller, to grasp the complexities and the nuances that are presented. As I have argued here, one of the answers to the trilogy's depiction of our 'monkey brains'' desire for more is to answer "enough". Evil in Atwood's fiction comes from greed: it is the icy heart of the wendigo; it puts us in debt; it strips us of our wings, we 'who once, too, thought we could fly.'[116] For those who thrive in the trilogy, a balance needs to be struck

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[114] Catherine Keller, *Apocalypse Now and Then: A Feminist Guide to the End of the World* (Boston, MA: Beacon Press, 1996), p. 308.

[115] Examples include the open ending of *Oryx and Crake*; the poem "The Weather"; and Andrew Tate's interview "Natural Lore". This rhetorical tendency is one of the points that Csicsery-Ronay criticises in "Key West Seminar".

[116] Margaret Atwood, *In Other Worlds: SF and the Human Imagination* (London: Virago, 2011), p. 230.

between excessive greed and puritan millenarianism. The post-Flood world lets many things from the pre-Flood world fall away, but not everything. Storytelling remains, and a community in balance with nature; Toby and Zeb are married, and Blackbeard begins the pages of humanity's story afresh. Nonetheless, the trilogy compels us to make changes in our ways of life, to be more responsible, and to recognise the moral problems that are readily apparent for those willing to look: in the words of one epigraph to this thesis: 'You don't like this future? Switch it off. Order another. Return to sender.'[117] This is the message we should take away from the trilogy. Reading Atwood's story, being exposed to its turns of phrase, wordplay, and allusions, empathising with its characters and the choices that they make, all act to transform the reader, redirecting them towards a more temperate, sustainable path.

As I indicated in the introduction, where virtue ethics has paid attention to literature, it has not paid significant attention to genre fiction. In advancing my argument here, I have shown that virtue ethics has much to gain by recourse to such texts; this is particularly true for ustopian and speculative fictions, which are centrally concerned with reflections on what is best in human life and with answering the question: how should one live? While I have focused primarily on temperance, the trilogy offers complex considerations on a whole range of virtues and vices, and it would be productive to pursue these further. Atwood offers us a model of engaged activism which encourages development of character, and her vision of the human being is one which is instructively dark — an under-represented view in virtue ethics.

All of these themes, which I have argued are central to the *MaddAddam* trilogy, have continued to be significant in Atwood's writings. Her warnings may 'have become more urgent', but as Atwood stresses, 'Everybody's warnings have gotten more urgent'.[118] Accordingly, temperance, speculative fiction, and the ustopia have continued to play a central

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[117] Margaret Atwood, 'Hardball', in *Good Bones* (London: Virago, 2010), pp. 87–90 (p. 90).
[118] Coral Ann Howells, *Margaret Atwood in Conversation with Professor Coral Ann Howells* (London, 2016) <https://vimeo.com/199141947> [accessed 24 June 2018], (09:50-10:05).

role in her work since the trilogy concluded in 2013. These themes have been highlighted by a sequence of works surrounding finance and total institutions, particularly prisons and care homes for the elderly. *The Heart Goes Last* and *Hag-Seed* have both focused on the externalisation of discipline that we ourselves lack — as he lies on the execution bed, Stan in *The Heart Goes Last* describes himself as a 'puppet of his own constricted desire'.[119] Even through the sedatives he's been given, he thinks not about escape, but about how embarrassing it would be to be unable to speak: 'He hopes this isn't permanent: he won't be able to buy anything except with little notes. *Hi, my name is Stan and I can't talk. Gimme ten bottles of booze.*'[120] The close parallel between Stan and Jimmy is clear. Felix in *Hag-Seed* reveals and punishes the greed of three men of sin, who are driven by unchecked appetite: "Who told them?" Sebert wails, "It was a legitimate expense!"[121] As in *The Tempest*, Felix's revenge is tempered at the suggestion of Miranda, and her plea for a recognition of their shared humanity.

An education in temperance and in practical wisdom is hard won in these texts; as a re-telling of Shakespeare's tale, *Hag-Seed* presents more hope than many of Atwood's own narratives. But the ustopian logic of her speculative fiction remains: the force of hope, with the power to choose what to pursue to the fullest extent of our humanity — it's a nice story anyway.

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[119] Margaret Atwood, *The Heart Goes Last*, 2015, loc.2856.
[120] Margaret Atwood, *Heart*, loc.2771.
[121] Margaret Atwood, *Hag-Seed* (London: Hogarth, 2016), p. 230.

Appendix 1. The structure of the *MaddAddam* Trilogy

The structure of the trilogy can be visualised in two ways. Atwood thinks of it as follows:

> It's […] an inverse 'V' formation, so the first two books come together at about the same point in time and the third one then continues on from that and tells us also what such a person as Zeb was doing in such a cult as the God's Gardeners — it did not seem to be a fit.[1]

One might think of the trilogy as a whole, then, as having a "Y" structure, with the first two novels feeding into the the single concluding part. However, the "Y" structure is undermined somewhat by Atwood's qualifying remark about Zeb, because the story of Zeb — the book's title when translated in Germany — extends a third branch backwards, making a more of a "psi" (Ψ) structure. In my view, this is insufficient to show the complexities of the plot structure. Rather, the "present" of the novels happens simultaneously, with each additional novel moving the narrative forward in time from the end of the previous novel somewhat, and expanding the backstory and world-building into the events that lead up to the present. It is this secondary feature that the Ψ structure fails to capture. Consequently, a second way of visualising the structure of the trilogy can be illustrated by the following sparkline diagram,

, which indicates the time over which the narrative is constructed.[2] The red line represents *Oryx and Crake*, the green line *The Year of the Flood*, and the purple line *MaddAddam*. There are also three black lines, which join two of the coloured lines together.

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[1] Paul Gallagher, 'Interview: Margaret Atwood on New Novel MaddAddam', *The List*, 2013 <http://www.list.co.uk/article/54764-interview-margaret-atwood-on-new-novel-maddaddam/> [accessed 2 September 2014].

[2] Edward R. Tufte, *The Visual Display of Quantitative Information*, 2nd edn (Cheshire, CT: Graphics Press, 2015); 'Sparklines; Intense, Simple, Word-Sized Graphics' in Edward R. Tufte, *Beautiful Evidence* (Cheshire, CT: Graphics Press, 2006), pp. 44-63.

The left-most black line is the Gardener Year 5, when Toby joined the God's Gardeners. The other two black lines, which together join all three coloured lines, is the Year Twenty-five, "The Year of the Flood", at "zero hour", when Snowman leaps out from the bushes to confront the Painballers. As must be clear, the scale is not perfect, as it condenses the earlier sections of the story and exaggerates the time past the ending of *Oryx and Crake*, which at the end of *The Year of the Flood* is only a few hours, but in *MaddAddam* extends to, potentially, several years.

To represent this, I have created three sparklines, one for each novel. Each sparkline consists of bars which rise or fall from a centre line. Each bar represents a section, and if they rise from the centre line they are set in the present, and if they fall from the centre line they are set in the past. The height of the bars represent the word-count of each section, to give a rough approximation of the length of a section, and the sections are grouped together into chapters. Each bar also has a colour which relates to the character through which the section is focalised. The graph for *Oryx and Crake*, illustration 19, is a good demonstration.

Illustration 19: Oryx and Crake sparkline

This shows how chapters of *Oryx and Crake* alternate between Jimmy's growth from childhood to adulthood, and Snowman's journey to retrieve supplies from the Paradice Dome. In this sparkline, bars in black or shades of grey represent sections focalised through Jimmy. The sections in the past start light grey and get darker as they move chronologically towards the present, finally meeting up with the present in the fourteenth chapter.[3] The

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[3] A similar flashback structure, with a temporally-positioned narrator reflecting on a past that slowly brings the reader into the narrator's present moment, appears in a number of Atwood's other works — Fiona Tolan describes this structure in detail as it applies to *Moral Disorder* (2006) in her article on

exception to the colour scheme, the sixth chapter, in bright red, is the chapter in which we learn Oryx's past, and the narrative focuses on her viewpoint. This structure is the model for the other novels, though these are complicated with additional features.

Illustration 20: The Year of the Flood sparkline

The Year of the Flood has two primary narrators who alternate with one another, Toby in yellow, and Ren in green. As with Jimmy's bars in the *Oryx and Crake* sparkline, sections in the distant past are paler, and the sections get darker as they approach the present, in this case moving fully into the present in chapter eleven. Each chapter also begins with a sermon to the God's Gardeners given by Adam One, in purple, and a hymn from the *God's Gardeners Oral Hymnbook*, in red, both of which take place in the past until chapter thirteen, when they switch to Year Twenty-five. An obvious contrast emerges with *Oryx and Crake*, which is that *The Year of the Flood* contains significantly more sections, and is significantly longer. Instead of alternating chapters between past and present, in *The Year of the Flood* each narrative portion of the chapter begins with a section in the present, which situates the narrators' location and current thinking, and against which the past sections are juxtaposed.

Illustration 21: MaddAddam sparkline

ageing in Atwood's writing 'Aging and Subjectivity in Margaret Atwood's Fiction', *Contemporary Women's Writing*, 2017 <https://doi.org/10.1093/cwwrit/vpx018>.

Finally, *MaddAddam*'s complexity arises with the number of different chapter viewpoints. Toby is the primary focaliser for the novel, but extended sections are Zeb's retelling of his early life, which are, in turn, adapted by Toby into mythic or folkloric retellings for the Crakers in sections which have their own distinctive structure and narrative conventions. Towards the end of the book, sections are narrated entirely by the young Craker boy, Toby's apprentice Blackbeard, and other sections are supposed to be written accounts in the book which becomes the human-Craker community's historical chronicle and religious text, authored in part by Toby and in part by Blackbeard.

Appendix 2. Atwood's Publications in the Twenty-First Century

Atwood's trilogy appeared across approximately the first decade and a half of the twenty-first century. Atwood's literary production across this period was prodigious, including not only novels, but poetry, short fictions, children's literature, a libretto, graphic novels, and several collections of essays. A list of her major works in the period includes:

a.   *The Blind Assassin* (2000)

b.   *Negotiating with the Dead* (2002)

c.   *Oryx and Crake* (2003)

d.   *Rude Ramsay and the Roaring Radishes* (2003)

e.   *Frankenstein Monster Song* (2004)

f.   *The Penelopiad* (2005)

g.   *The Tent* (2006)

h.   *Moral Disorder* (2006)

i.   *Bashful Bob and Doleful Dorinda* (2006)

j.   *The Door* (2007)

k.   *Payback: Debt and the Shadow Side of Wealth* (2008)

l.   *The Year of the Flood* (2009)

m.   *Wandering Wenda and Widow Wallop's Wunderground Washery* (2011)

n.   *In Other Worlds: SF and the Human Imagination* (2011)

o.   *MaddAddam* (2013)

p.   *Stone Mattress* (2014)

q.   *Scribbler Moon* (2014, unreleased)

r.   *Pauline* (2014)

s. *The Heart Goes Last* (2015; as ebooks in the *Positron* series 2012-2013)

t. *Hag Seed* (2016)

u. *Angel Catbird* (2016-2018)

At the time of writing, this busy period has been concluded by the release of several (very) popular television adaptations of some of her major works — *The Handmaid's Tale* and *Alias Grace*, with an adaptation of the *MaddAddam* trilogy supposedly under way. In December 2018, Atwood revealed that sequel to *The Handmaid's Tale* (the novel) was in progress, and due for publication in 2019.

Appendix 3. Atwood on Twitter

Illustration 22: Some of Atwood's tweets on November 16th 2017

Illustration 23: Atwood on astroturf

Illustration 24: Twibbon on Margaret Atwood's twitter page as of November 16th 2017

Appendix 4. List of folders from Margaret Atwood Papers[1]

These folders come from boxes 113-116. The finding aid summary of the 2004 accession which included these boxes describes the contents as Atwood's 'copious notes and research for *Oryx and Crake*.' The following list covers only a selection of particularly relevant folders.

- Slavery, 2001-2

- Small Pox 2002

- Stem Cell research, 2001-2

- Strange Math Stats, 2001

- Studies Reveal … social, 2002

- Studies Reveal … technology and medical, 1999-2003

- Surveillance, 2001-2

- Threatened Species, 2000-3

- U.S. Politics — environment, 2000-3

- Animal-Rights Violations 2002-3

- BSE: Mad Cow Disease

- Child Sex Trade

- Climate Change

- Cloning

- Congress - Controversial Medical Bills

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[1] University of Toronto Libraries, 'Margaret Atwood Papers: Finding Aid MS Coll 355', *University of Toronto Libraries Catalogue*, 2006 <https://fisher.library.utoronto.ca/sites/fisher.library.utoronto.ca/files/finding_aids/atwood335.pdf> [accessed 6 April 2018].

- Drug Resistant Organisms

- DNA Tampering

- Environmental Damage

- Failing Healthcare

- Globalization

- Pharmaceutical Blunders

- Pigs

- Proteomes

- Security

- September 11

Appendix 5. Crake's plan

It should be noted that the fabula of Crake's life is not entirely consistent; the times and dates given for specific events are sometimes directly contradictory. I interpret this inconsistency to be evidence of two things: that the narrative was composed across a decade with a substantial break between the first and second instalments; and that this is the first narrative that Atwood has written across multiple volumes. Another possibility, suggested by the unusual structure of the trilogy and the mode of narrative voice, is that evidence supplied by any or all of the focalising characters is suspect, subordinated to their own purposes, as for example in Jimmy's refusal to call Crake Glenn.

Approximate Date	Description
Age 5, approximately Year 3	Glenn is mentored by Pilar; she teaches him to play chess. Given some of the views she expresses later, it is possible she shares her deep green beliefs with Glenn during the approximately ten years she mentors him.
Approximately age 8-10, approximately Year 8	Glenn meets Zeb, and Zeb teaches him to hack. In the course of conversations, Glenn twice mentions the necessity of cutting down large carbon footprints by any means necessary, suggesting he already holds deep green views.
Approximately age 8-10, approximately Year 8	Glenn records his mother having an affair with Uncle Pete. His father is killed by Corpicide, and Glenn hacks into his father's computer, retrieving evidence that HelthWyzer are deliberately infecting their customers, that Glenn's father was going to reveal this, and that only Glenn's mother and Uncle Pete knew this. He concludes that they were at least involved in his father's murder.
Approximately age 14,	Glenn takes Pilar the results of her cancer biopsy, which

Year 12, Mole Day	indicate that she is terminal. They play a last game of chess, which Crake wins. She commits suicide shortly thereafter, and in her will her chess set passes to Glenn. The chess bishop contains three pills at least one of which kills in a similar manner to the JUVE outbreak — Zeb has already used it to kill his father, the Rev. It is revealed that Glenn has been acting as a courier inside the Compounds for the Gardeners, and also that Crake's hacking skills are now nearly equal to Zeb's.
High School years	Glenn goes to HelthWyzer High with Ren and Jimmy. Jimmy and Glenn play Extinctathon, and Glenn assumes the name Crake. Ren tries to seduce Crake, but instead they strike up a sort of friendship, and Crake learns more about the Gardeners and their philosophy.
Graduation	Just before they graduate, Rhoda dies of an infection that 'causes froth to come out'. The researchers think it is a type of transgenic staph infection. It superficially resembles JUVE, but may be one of the other three pills Crake has acquired. The implication is that Crake has murdered his mother for her betrayal.
Watson-Crick (undergraduate)	At Thanksgiving, Jimmy visits Crake. Jimmy gets an unprecedented level of insight into Crake. Crake gives the hypothetical, the story of HelthWyzer's exploitation and his father's murder. Jimmy finds Crake screams in his sleep. We see Crake's first lot of fridge magnets. Crake reveals Extinctathon as a meeting place for the ecosaboteurs, the MaddAddamite faction. Crake speculates that the MaddAddamites want to bring down the pre-Flood society.
Watson-Crick (post-graduate)	The narration suggests that Crake graduates early, and starts work on post-grad projects.
RejoovenEsense	Crake is head-hunted by one of the most powerful

Approximately Year 18	Compounds. Shortly afterwards, Uncle Pete is killed by a virus that turns him into 'pink sorbet' — again, this appears to be an early form of JUVE. Crake is working on the BlyssPluss Pill; it is suggests that it is almost single-handedly his work, unlike the Crakers which requires the MaddAddamites. Crake 'goes dark' for the Gardeners.
	Crake begins visiting Scales and Tails, conducting non-invasive trials and asking girls questions about their happiness.
Year 21	Crake is active on the MaddAddamite message board, passing information directly to Zeb. The Edencliff Garden is destroyed, and the MaddAddamites are actively hunted.
RejoovenEsense Year 25	Crake brings Oryx to Scales and Tails. The Crakers are completed. Sharon is killed, Crake brings Jimmy to Scales and Tails, immunising him against JUVE. BlyssPluss is distributed around the globe, and JUVE breaks out.
Year 25	Crake confronts Jimmy, and murders Oryx, leaving Jimmy as ostensibly the only human survivor.
	After Crake's death, Jimmy waits for the humans to die from JUVE, introduces himself to the Crakers as Snowman, and shepherds them to the beach to begin the neo-human phase, in balance with the environment.

Appendix 6. Physical traits of the Crakers

Rapid growth and maturation

'The yearling looks like a five-year-old. By the age of four he'll be adolescent. Far too much time was wasted in childrearing, Crake used to say. Childrearing, and being a child. No other species used up sixteen years that way.' (*Oryx and Crake*, p.187)

Limited life span

'they're programmed to drop dead at thirty — suddenly, without getting sick. No old age, none of those anxieties.' (*Oryx and Crake*, p.356)

Strengthened immune functions

'the Paradice models had enhanced immune-system functions, so the probability of contagious diseases spreading among them was low.' (*Oryx and Crake*, p.356)

Built-in insect repellent

'they smell like a crateful of citrus fruit — an added feature on the part of Crake, who'd thought those chemicals would ward off mosquitoes' (*Oryx and Crake*, p.117)

Inability to conceive of racism (relating to skin colour)

'racism - or as they referred to it in Paradice, pseudospeciation — had been eliminated in the model group, merely by switching the bonding mechanism: the Paradice people simply did not register skin colour.' (*Oryx and Crake*, p.358)

Alteration of digestion to form and consume caecotrophs

'He finds the caecotrophs revolting, consisting as they do of semi-digested herbage, discharged through the anus and reswallowed two or three times a week. […] For animals with a diet consisting largely of unrefined plant materials […] such a mechanism was necessary to break down the cellulose, and without it the people would die.' (*Oryx and Crake*, p.188)

Seasonal reproductive cycle

'they came into heat at regular intervals, as did most mammals other than man'; 'Her condition will be obvious to all from the bright-blue colour of her buttocks and abdomen';

'[The males] penises turn bright blue to match the blue abdomens of the females.' (*Oryx and Crake*, p.358; 193-194)

Multi-partner reproduction

'There'll be the standard quintuplet, four men and the woman in heat. […] Courtship begins at the first faint blush of azure, with the males presenting flowers to the females. […] At the same time they indulge in musical outbursts, like songbirds.' ; 'It no longer matters who the father of the inevitable child may be, since there's no more property to inherit, no father-son loyalty required for war.' (*Oryx and Crake*, p.194)

Predator-deterrent urine

'According to Crake […] the chemicals programmed into the men's urine are effective against wolvogs and rakunks, and to a lesser extent against bobkittens and pigoons.' (*Oryx and Crake*, p.183)[1]

Self-healing by purring

'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.' (*Oryx and Crake*, pp.184-185)

Unearthly vocal abilities, including the ability to communicate with Pigoons

'The two piglet-bearers have gone forward to the line of piss. Abraham Lincoln and Sojourner Truth are on the other side of it. They kneel so they're at the level of the pigoons: head facing head. The Crakers stop singing. There's silence. Then the Crakers start singing again. […] "They are talking, Oh Toby," says Blackbeard. "They are are asking for help."; "the Morse code of Crakerdom".' (*MaddAddam*, p.327; 423)

Enhanced vision

'Every once in a while he steps off to the side, lifts the binocs, focuses. "Crows," he announces. "Vultures." The Craker women laugh gently, "Oh Blackbeard, but you knew that without the eye tube things," they say. Then he laughs as well.' (*MaddAddam*, p.337)

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[1] It is unclear why Crake tested their urine against Pigoons, as he would have to have (correctly) predicted their escape from captivity during the Flood. I speculate that these were among the most threatening mammals available for testing.

UV resistant skin

Johnston suggests that the Crakers demonstrate two other features, for which I find little evidence in the trilogy; these are photosynthetic skin, which Johnston suggests allows them to exist 'without massive agricultural or industrial procedures', and the free practice of homosexuality.[2] In fact, one of the criticisms that could be levelled against the text is is exactly the opposite of what Johnston proposes — that it reduces sexuality to biology, so that homosexuality is inconceivable among the Crakers.

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[2] Justin Omar Johnston, 'The Prosthetic Novel and Posthuman Bodies: Biotechnology and Literature in the 21st Century' (unpublished PhD, The University of Wisconsin-Madison, 2012), pp. 116——17.

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