

Mapping the MaddAddam Trilogy and *The Heart Goes Last*: A Cartography of Margaret Atwood's Posthumanisms



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Introduction: Intersections

The present work is an attempt at mapping the intersection of current posthumanist theory and four of Margaret Atwood's works of speculative fiction, namely, her MaddAddam trilogy (*Oryx and Crake*, 2003; *The Year of the Flood*, 2009; *MaddAddam*, 2013) and *The Heart Goes Last* (2015). At the same time, this paper tries to make sense of Atwood's use of the neoliberal capitalist technological economy through the lens of the posthuman.

Atwood's speculative fiction has been specifically selected as the object of this study because of two reasons. First, because the genre of speculative fiction not only takes issue with the present but also simultaneously projects its preoccupations into the future. This allows for the establishment of an osmotic relationship between past, present and future: in light of the bearing that past events have on the current state of affairs, the past is imaginatively combined with the present to predict possible outcomes to modern anxieties. The results of this creative experiment might then serve, as it is the case in Atwood's fiction, as cautionary tales of humankind's flawed relationality. Man, we are warned, in his Enlightenment conception as

the central figure of the cosmos, has by turns neglected and abused his relationship with nonhuman others, with disastrous consequences for animals and the environment. He is also allowing himself to be led by the corrupting influence of neoliberal capitalism, which has become not only an economic model but a value system that negates affectivity in favour of the pursuit of wealth. Furthermore, Man has historically been conceptualised as European, white, male, able and in his prime, and so he has marginalised other subjectivities that, precisely because of their otherness with respect to this standard, have become oppressed minorities under the reign of Western logos.

Second, Atwood's central place at the heart of Canadian Literature, both as one of its prominent authors and theoreticians and critics, makes her speculative fiction an ideal subject of study to explore the convergence between Canada's canonical literature and the posthuman. I contend that a chief reason why an exploration of the previous categories is particularly worthwhile is because some of the central tropes and preoccupations in Canadian Literature, particularly in current speculative fiction, resonate with those of posthumanist thought. For instance, in the current climate, in which survival has become



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an industry in and of itself (see Stec), posthumanist thought can shed new light into Atwood's 1972 assertion that "the central symbol for Canada (...) is survival" (2012: 27). Atwood's statement is reminiscent of Donna Haraway's—one of the leading posthumanist thinkers—description of the cyborg figure, which, according to her, posits questions the answers to which "are a matter of survival" (2000: 73).

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Officially self-declared a multicultural nation-state, Canada might well turn out to be, albeit perhaps inadvertently, the first self-imagined cyborg country in its attempt to erase the barriers that spring from cultural clash in the sociopolitical sphere. Indeed, as Haraway points out, the figure of the cyborg is a figure of opposites and contradictions (2000: 74). If an escape from bare survival can be achieved through creativity (Atwood, 2012: 35), then Canada could be collectively imagined as the cyborg figure re-creating itself through its writing. Certainly, many other multicultural

countries exist that may bring into question the particular applicability of the cyborg myth to Canada—the so-called 'salad bowl' of the United States is a good example—but the self-imagining of the U.S. as a nation-state has historically led to the invisibility of minorities in favour of a projected heterogeneity under the 'American' label. As such, Canada remains to my mind the most adequate example of a self-styled posthumanist country: in the multiplicity of voices that it encourages, its language embraces the "powerful infidel heteroglossia" of Haraway (2000: 84); through its policies of multiculturalism it also speaks of the "transgressed boundaries, potent fusions, and dangerous possibilities which progressive people might explore as one part of needed political work" (Haraway: 74).

In keeping with this rationale, posthumanist literary criticism asserts itself as a powerful tool for the analysis of Canada's literary products, since posthuman literary criticism understands literature as "an agent of conceiving new conceptual personae defined by their rationality and outward-bound interconnections" (Lau, 2018: 347). Canadian Literature, in its exercise of self-definition and of contributing to the Canadian metanarrative, is precisely involved in such a process. Thus, Atwood's novels become prime raw material for an in-depth look at the inner workings of such procedures.

Approaches to Posthumanism

I pay here particular attention to three different approaches to the posthuman which are simultaneously present in the studied novels: transhumanism, speculative posthumanism and critical posthumanism. This is not to say that there are no other points of view informed by the posthuman, or belonging to its critical sphere, which may potentially apply to Atwood's fiction—there can be little doubt, for instance, of the application of



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ecomaterialism to Atwood's environmental dystopias. Rather, this selection is a way of narrowing down the focus to ensure a minimum representation of diverging iterations of the posthuman in order to show their individual applications as well as shortcomings within the context of *The Heart Goes Last* and the MaddAddam trilogy. Both the novel and the trilogy feature prominently among Atwood's works of speculative fiction, and deal specifically with the consequences of the misapplication of current (or theoretically possible) technologies. These novels also highlight the process of construction of new subjectivities, which becomes necessary in conditions of drastic social and/or environmental change. In these scenarios, Man must rethink his claims of centrality in the Earth's ecosystem. Only in acknowledging his interdependency with, and the validity of, human and nonhuman entities whose subjectivity had previously been thought either worthless or nonexistent, as well as in acknowledging their combined dependency on the natural environment, lies the possibility for the continued existence of all.

The first of the posthuman theorisations considered in the present pages, transhumanism (or H+, for "Humanity Plus"), is starkly different from speculative and critical posthumanism in that it emphasises its roots in Enlightenment humanism and progress (More, 2013: 4), and "focuses specifically on human enhancement" (Ferrando, 2018: 439). The pathways for the modification of the human opened by the development of high technology, transhumanists argue, may lead to the existence of superior beings stemming, but different from, humans: the posthumans (Wolfe, 2010: XIII). Transhumanism also takes into account the possibility that artificial intelligences created by humans develop independent (non-programmed) thought, something known as 'the singularity.' Thus, progress also finds at its centre the likelihood of catastrophe, what Bostrom has termed "ex-

istential risk": "one where an adverse outcome would either annihilate Earth-originating intelligent life or permanently and drastically curtail its potential" (2002: 2). This is acknowledged in Article 3 of the Transhumanist Declaration, which recognises that "humanity faces serious risks, especially from the misuse of new technologies. There are possible realistic scenarios that lead to the loss of most, or even all, of what we hold valuable (...). Although all progress is change, not all change is progress" (Baily *et al.*, 1998: online). The reference to progress is key in the understanding of the transhuman, particularly since technoscientific progress is at the core of current technological/advanced capitalism.

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Speculative posthumanism (abbreviated SP) does not take Enlightenment humanistic values as the point of departure, nor does it understand their persistence in time as a necessity. Summarising Roden's extensive book on speculative posthumanism (2015), Dana-her identifies SP as the middle ground between the approaches to the posthuman reflected here. Speculative posthumanism "shares certain elements of transhumanism and critical posthumanism." While it partakes of "the transhumanist fascination with the ways in which technology can be used to modify and enhance human attributes," it also holds that the resulting beings "could be radically alien and different," leading to "a radical restructuring of the values inherent



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in present social orders" (Danaher, 2015: online). This aligns with the necessity identified by critical posthumanism of finding new iterations of now-obsolete (or perceived as such) humanistic values that might spur new, affective forms of subjectivity and relationality.

Critical posthumanism, the last of the posthumanisms I am concerned with here, is born from the convergence of posthumanism, understood as the "critique of the humanist ideal of 'Man' as the universal representative of the human," with post-anthropocentrism, a critique of "species hierarchy" that advances "bio-centred egalitarianism" (Braidotti, 2018a: 1). According to Braidotti, critical posthumanism entails the convergence of deviating strands of posthumanist thought beyond dialectical opposition, wanting to "re-assemble a discursive community out of the different, fragmented contemporary strands of posthumanism" (2013: 42).

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I would like to clarify that, although my analysis focuses on the relationship between the human and the technological, I reject the idea that both categories constitute a binary and are of necessity dialectically opposed, for "any material system is technological if it filters information useful to its survival (...) if it

intervenes on and impacts its environment so as to assure its perpetuation at least" (Lyotard, 2000: 132). This is in line with the conception of both categories held by non-humanist strands of posthumanism, and it is something that I believe Atwood's fiction also reflects.

Margaret Atwood and Posthuman Criticism: Rethinking the Human

In order to identify what the posthuman looks like, the question at the centre of its thought is "what is (a) 'human'" (see Wolfe). Different strands of posthumanist thought might provide different answers but, before their applicability to Atwood's fiction can be contrasted, we first need to unravel what 'human' looks like in the different scenarios presented by Atwood's works.

Within the context of genetic engineering as portrayed by the MaddAddam trilogy, the first approach to distinguish what counts as human and not is quantitative; that is, having to do with the extent to which an organism has been modified and how much these modifications separate the bioengineered result from the initial product. For instance, the Crakers, who include all the different possible bodily enhancements enabled by genetic engineering, are acknowledged as a separate humanoid species in their condition as technological "floor models" (*Oryx*: 359). Beyond that, a discussion of someone's humanity is also closely related to their upholding of humanist values that are still perceived to be at the core of the individual (if not of society, which has progressively abandoned them). In particular, characters in the trilogy take note of how senseless violence and cruelty, such as that exerted by the main antagonists of the third novel—the "Painballers"—, affect our notion of the human. Painballers, in the novel, are hardened criminals competing in teams on a reality TV show



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arena where they gruesomely murder each other in the manner of gladiators, and leave evidence of their killings for the other team to find—for instance, by hanging corpses that visibly lack some organs. These sadistic practices not only serve to intimidate the opposing team but are also an extreme example of the insensitivity and moral blindness that is characteristic of the neoliberal capitalist moment. Thus, they can be said to dissolve the basic humanity or “humane-ness” that is automatically granted to members of the *Homo Sapiens Sapiens* species:

‘Who cares what we call [the Painballers],’ says Rhino. ‘So long as it’s not *people*.’

Hard to choose a label, thinks Toby: three sessions in the once notorious Painball Arena have scraped all modifying labels away from them, bleached them of language. Triple Painball survivors have long been known to be not quite human (*MaddAddam*: 448, original italics).

The passage calls attention to language. Art also seems to play a role in the construction of what is known as human, for an utter lack of artistic ability—in this example, singing—during the development of the Crakers rendered them essentially “zucchini” (*MaddAddam*: 57). That is, although the Crakers are, physically, fully functional humanoids, their lack of creativity makes them incapable of adequately engaging with others.

Chief among the arts that scientists tried to erase from the Crakers are linguistic products: insofar as they can offset and prevent situations of extreme violence, writing and the effective/affective use of language are hailed as the safeguards of common (not shared) humanity. In the post-apocalyptic context of *MaddAddam*, creativity is not only a necessary survival skill (to improvise solutions to the decay and disappearance of technology), but also a life-affirming practice. Writing in particular becomes a way of affirming life as

potentia, which, in critical posthumanism, corresponds to the Spinozist notion of the division of power as negative, or dominating (*potestas*) and generative and connected to the world (*potentia*). The ‘*potentia*’ of writing is then exploited in *MaddAddam* to counteract the erosion of humanistic values that seem to become redundant within advanced capitalism, in line with critical posthumanist thought, which views with scepticism the current perceived obsolescence of literature: “a critical posthumanist (and ‘countertextual’) approach is both aware and wary of the contemporary desire to leave the humanist apparatus of literacy and its central institution of literature (...) behind” (Herbrechter, 2018: 95).

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The relevance of language in relation to humanness is also echoed in *The Heart Goes Last*, where it is stated that the addition of “fancy language” in anthropomorphic sex robots “costs extra” and is only available at “the Platinum level” (*Heart*: 232). Indeed, the economic terms in which the description of perceived human traits is given are, as we will see, characteristic of the overall tone of the novel. Language, however, is not unequivocally depicted as good—particularly not in women, who, in the novel, become another object of the advanced capitalist economy: “There’s a plus [if the robots can’t talk] though, they



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can't pester you, like, did you lock the door, did you take the garbage out, all of that" (*Heart*: 232). Furthermore, as one of the characters expresses in *MaddAddam*, the creative power of language and writing also contains within it the possibility of generating evil: "Now what have I done? She thinks. What can of worms have I opened? (...) What comes next? Rules, dogmas, laws? The Testament of Crake? How soon before there are ancient texts they feel they have to obey but have forgotten how to interpret? Have I ruined them?" (*MaddAddam*: 250).

The MaddAddam Trilogy

In Atwood's MaddAddam trilogy, we are presented with an account of a pre- and post-apocalyptic "New New York." In it, most human beings have been obliterated with the dissemination of a deadly disease through the very commercially successful BlyssPlus Pill. As Crake, its creator, explains, this is a

- [S]ingle pill that, at one and the same time:
- a) would protect the user against all known sexually transmitted diseases, fatal, inconvenient, or merely unsightly;
 - b) would provide an unlimited supply of libido and sexual prowess, coupled with a generalized sense of energy and well-being (...)
 - c) [and prolong] youth. (*Oryx*: 346) (*Oryx*: 346).

The survivors, Crake's friend Jimmy, a number of scientists—the MaddAddamites—and members of the ecological sect known as God's Gardeners are left to take care of the Crakers, an anthropomorphic new species designed by Crake to take over the planet after man's demise. At the same time, they must defend themselves against the Painballers who have survived their own murderous reality TV show to conquer freedom, while negotiating their place among new spliced bioforms like the pig/human organ hosts, the Pigoons.

In MaddAddam, the Crakers are arguably the most complex iteration of the technologically enabled posthumanism, being a new race of humanoid creatures bioengineered to surpass so-called 'narrow' humans and take their place in the new world order after their creator, Crake, triggers the 'Waterless Flood' that does away with the greater part of humanity:

Compared to [the Crakers], even the Blyss-Plus Pill was a crude tool (...) In the long run, however, the benefits for the future human race of the two in combination would be stupendous (...). The Pill would put a stop to haphazard reproduction, [the Crakers] would replace it with a superior method (...). What had been altered was nothing less than the ancient primate brain. Gone were its destructive features, the features responsible for the world's current illnesses. (*Oryx*: 358).

In their bioengineered physical superiority with respect to narrow humans, the Crakers can be seen as away of bridging the gap that, according to speculative posthumanism, "[t]here are no posthumans." According to speculative posthumanism, an agent is posthuman "if and only if it can act independently of the 'Wide Human' (WH)—the interconnected system of institutions, cultures, individuals and technological systems whose existence depends on biological ('narrow') humans" (Roden, 2018: 399-400). The Crakers, then, are able to figure among the new class of "posthumans" because they have been specifically designed for a world without the WH, as a replacement *sui generis* species (*Oryx*: 356). However, this does not take into account the Crakers' necessity of a teacher and caretaker, without whose support the Crakers lack sufficient knowledge to guarantee their independent survival, regardless of their bodily enhancements. Particularly so, since the Crak-



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ers cannot understand violence and are helpless to defend themselves not only against the more dangerous remnants of the pre-apocalyptic world (like the Painballers), but against the very environment in which they are supposed to thrive, grasping only with difficulty the possibility of their having predators at all (*Oryx*: 185).

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The Crakers' reverence for their guardian Jimmy, who is on his way to becoming "a secondary player in their mythology" (*Oryx*: 262), is also an indication that the Crakers have begun to operate within the ideological structures enabled by the WH, in spite of the genetic engineering whereby the Crakers ought to have functioned not only better than, but completely separate from, humans and their ideological architecture: "Crake thought he had done away with all that, eliminated what he called the G-spot in the brain. *God is a cluster of neurons*, he'd maintained" (*Oryx*: 186, original italics).

Furthermore, the adherence to a speculative posthumanist view of the Crakers would signify that, in the advent of an apocalyptic event which dismantles the WH, the *post*-human is chronologically triggered, because human agency and human products, if at all existent after the apocalypse, are not longer usable or current. In this case, the posthuman moment is reached without the necessity for a shift in human materiality or subjectivity (e.g. without the reliance on human enhancement technologies or an ontological turn to an inclusive posthuman subjectivity that also acknowledges the value of nonhuman subjects). Hence, the posthuman turn would not necessitate the appearance of a posthuman species like the Crakers, merely the disappearance of humans and the dismantling and decaying of their institutions by the sole effect of time.

This is a complication acknowledged by critical posthumanism, which sees the "chronological trigger" for the posthuman as a dialectical construction that can be overcome by means of non-binary thinking:

The prefix 'post-' (...) on the one hand, signifies a desire or indeed a need to somehow go *beyond* humanism (or the human), while on the other hand, since the *post*- also necessarily repeats what it prefixes, it displays an awareness that neither humanism nor the human can in fact be overcome in any straightforward *dialectical* or historical fashion (for example, in the sense: after the human, the posthuman). (Herbrechter, 2018: 94, original italics)

Therefore, in critical posthumanism, the existence of the Crakers as a posthuman population goes unquestioned *regardless* of the situation of the humans or the speculative posthumanism's WH.



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Genetic Engineering and Animal-Human Relations

The MaddAddam world is dominated by practices of bodily enhancement and genetic engineering. These have ostensibly positive aims, in the name of (human) progress, normally associated with a prolonged lifespan or cosmetic enhancement. However, these technologies also have a strong potential for being used with nefarious intent, providing their users with the opportunity to change their features and biometric data in order to melt into the criminal underbelly of the technocratic, corporation-run society. As Macpherson points out, the ethical issues behind the darkest applications of these technologies go unquestioned. Those who doubt that these advances are constitutive of progress are condemned to disappearing from the system: "The thrill is in the possibility (...) The moral results of such experimentation are apparently never explored—or only explored by those whose fates become dark and twisted" (2010: 78). As ever, the development of these technologies remains a capitalistic venture, and so the ultimate considerations have to do with profit and motive (cheapness and ready availability).

The best example of this are the Pigeons, which are developed as a substitute for organ donors but whose human subjectivity is contemplated by the fact that they possess human genetic material: "to set the queasy at state, it was claimed that none of the defunct pigeons ended up as bacon and sausages: nobody would want to eat an animal whose cells might be identical with at least some of their own" (*Oryx*: 27). In spite of these assurances, however, the reduction of biodiversity sees the Corporation's canteen offer pork products more often, which is at odds with the young protagonist Jimmy's empathetic connection with the spliced animals: "He didn't want to eat a pigeon, because he thought of the pigeons as creatures much like himself. Neither he nor they had a lot of say in what was

going on" (*Oryx*: 27). As we will see, the capacity to relate empathetically with nonhuman subjects is an important theme in the MaddAddam trilogy. This is seen in different characters throughout the series but, as Adami points out, "in *Oryx and Crake* it is Jimmy who gives voice to Atwood's preoccupation regarding the impact of biotechnology on our humanity questioning the morality of Crake's enterprise" (2012: 255). The third-person narrator gives voice to Jimmy's own queasiness, which will be echoed throughout the remaining books in the trilogy: "Why is it he feels some line has been crossed, some boundary transgressed? How much is too much, how far is too far?" (*Oryx*: 242)

The radical malleability of bodies in the posthuman moment forces their reconceptualisation. Rather than being unitary subjects endowed with cartesian rationality, bodies are defined according to the concept of material and subjectival assemblage. The new posthuman subjectivity, then, "becomes distributed and prosthetic. The posthuman subject has no property in the body but is both open and closed, receptive of outsiders as well as dependent on a continuous self-exteriorization" (Rossini, 2017: 159). In accordance with the critical posthumanist belief in the ubiquity and interconnectedness of matter, the human body or subject is seen as "just another knot in the web of interspecies or intersubjective dependencies (...). Being is being-with, living-with strangers and foreigners, including the foreigners within" (Rossini, 2017: 165). The "foreigners within," of course, refer to the products of enhancement technologies, which, as transhumanists will acknowledge, may also foster a sense of alienation from one's own foreign materiality as much as they might enhance somebody's abilities or quality of life, also in the most basic cases—for instance, to mention Rossini's own example, in the event of a heart transplant.

The MaddAddam animals, as well as the Crakers, literally *embody* the material inter-



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connectedness that is at the heart of the posthuman. Some of these hybrid animals, albeit to a lesser extent than the Crakers, have even become hardly recognisable in their intraspecies splices or adaptations. Their genetic heritage is known only by their names, like “wolvog” (a cross between a wolf and a dog) or “liobam” (a lion/lamb splice).

Bodily dislocation paves the way for a new posthuman subjectivity, reflected, for example, in the uncertain extent to which animals like the Pigoons are considered fellow (non)human/hybrid subjects. This shift in subjectivity is also reflected in the breaking down of linguistic barriers that allow the Crakers and Pigoons to communicate, erasing one of the boundaries which, in humanist thought, have most clearly separated humans from animals. The fact that narrow humans cannot understand this language, but the Crakers can, speaks not of the continued exceptionality of humans in the post-apocalyptic landscape, but, I believe, of the inadequacy of the species in a world no longer tailored to it. Without the enhancements of the Pigoons or the Crakers, the surviving humans are at a social and biological disadvantage. The survivors, in their lack of understanding of the nonhuman Other, are unable to relate affectively to their environment and engage in productive dialogue such as ultimately allows the establishment of peace among humans and Pigoons. In this failure, they perpetuate the cycle of violence that is acknowledged throughout the series as the condition of their kind, for instance in the Blood and Roses game, where players exchange the artistic feats of mankind for the many atrocities that have ultimately destroyed them. The Crakers' initial condition too, becomes reversed: by the end of the trilogy, they are the effective caretakers of the humans, and the preservers of their dwindling legacy: “Now I have added to the Words, and have set down those things that happened after Toby stopped making any of the Writing and putting it into the Book. And I have done

this so we will all know of her, and of how we came to be” (*MaddAddam*: 470).

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The relational shift incurred on by Crakers and animal splices alike can best be understood from the point of view of posthuman critical theory, where the adoption of a Spinozist ethics of joy and affirmation becomes the ultimate site of resistance against the “rashness” and “anger” that propel violent action against others (*Year*: 22). Rashness and anger are not only traits that antagonist characters like the Painballers possess, but are acknowledged to be a central part of the human condition, as they also appear in otherwise kindly and peaceful characters like Toby, pointing to the violence of humankind as a barrier blocking its access to an affective relationality with the other.

***The Heart Goes Last*: A Utopian Novel**

The Heart Goes Last is a utopian novel—to use Atwood's word, a conflation of “utopia”



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and “dystopia”—that begins in the midst of an economic crisis reminiscent of that of 2008:

There were hordes of two-bit experts on TV pretending to explain why it had happened—demographics, loss of confidence, gigantic Ponzi schemes—but that was all guesswork bullshit. Someone had lied, someone had cheated, someone had shorted the market, someone had inflated the currency. Not enough jobs, too many people. Or not enough jobs for middle-of-the-road-people like Stan and Charmaine. (*Heart*: 9)

The protagonist couple enters an arrangement by which, in order to be spared from poverty and insecurity, they are to live in a highly automatised, isolated compound of town and prison (Consilience/Positron), alternating each month between living in an assigned home and gender-segregated cells. The project, at first promising to become “a revolutionary new venture” (*Heart*: 53) and a model for the future, is soon revealed to have a dark underside in the form of an organ farm, unveiling the ruthless economic interests of its founder, Ed, and presenting a picture of an amoral, market-driven society, where the ethical considerations of any given action have been displaced in favour of a calculation of the economic profit one might be able to obtain for it: “We’ve turned away at least a dozen baby-blood offers. We tell them we can’t accept it.’ Someone’s accepting it, Stan thought. You can bet they are. If there’s money in it” (*Heart*: 10-11).

In *The Heart Goes Last*, one of the prime examples of the use of technology to alter the human condition is a type of laser brain surgery whereby the patient “imprints,” or falls in love with, what they first lay eyes on upon waking up from the procedure. In the novel, patients do not choose to undergo this surgery, but are kidnapped and then forced to it: the subjects “[don’t] sign up, exactly (...) Wake up

is more like it. That way there’s more freedom of selection. The clients wouldn’t likely want anyone desperate enough to sign up of their own accord” (*Heart*: 254). From the wording, it is also very clear that this is a medical procedure to which only women are vulnerable: “When the subject wakes up *she* imprints on whoever’s there. It’s like ducklings” (*Heart*: 254, emphasis added). This procedure exemplifies how women’s bodies become another saleable commodity in the capitalist economy. Because women are no longer considered fellow subjects, but are treated as objects within the system, technology becomes “a major instrument of *elite* male domination,” aided by the fact that “minorities are systematically steered from technology” (Leonard, 2003: 19, original italics).

The aforementioned surgery and its implications can be most clearly traced to the transhumanist belief in the possibilities of human enhancement—however misguided or problematic the resulting ‘enhancement’ might turn out to be. As it has been pointed out, the transhumanist belief in (post)human perfectibility does not shy away from the acknowledgement that there are many ethical questions to consider in the carrying out of enhancement procedures, and that some of the results might turn out to be catastrophic for humans at large—or for a segment of the population, in this case, women. At least, in *The Heart Goes Last*, women have the dubious honour of figuring in the picture, as other groups that are deemed minorities have become effective castaways of the Consilience/Positron intended model society, such as LGBTQI+ folk: “Anything goes, out there in the so-called real world, though not inside Consilience, where the surface ambience is wholesomely, relentlessly hetero. Have they been eliminating gays all this time, or just not letting them in?” (*Heart*: 238).

The existence of these new technologies also calls into question the notion of free will.



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The successful performance of the previously mentioned procedure or lack thereof problematises the notion of individual responsibility, which rests upon an individual's own sense of accountability for the use of their free will. As one of the novel's characters expresses, "Nothing is ever settled (...) Every day is different. Isn't it better to do something because you've decided to? Rather than because you have to?" At the same time, this character acknowledges that a withdrawal of responsibility can be "seductive" to some, asking: "You want your decisions taken away from you so you won't be responsible for your own actions?" (*Heart*: 379). The lack of free will, or rather the disavowal of accountability that a lack of free will entails, brings to mind Hannah Arendt's notion of the 'banality of evil,' and so opens up dialogue regarding, for instance, the extent to which advanced technologies should be endowed of moral decision-making—not being responsible for their own programming—or held accountable if they turn out to be the agents of violence. The novel also questions the inevitability of inflicting evil under conditions of self-preservation, and, as Fraile Marcos argues, it focuses on the ordinary citizen to explore, again following Arendt, how "[b]y refusing to take moral responsibility for one's actions or turning a blind eye on the unethical behaviour of others, the average person may easily turn from being a victim into a collaborator and perpetrator of evil" (n.p. forthcoming).

In *The Heart Goes Last*, sex robots can be read as an example of the disposable body. The robots themselves, as a piece of technology in the neoliberal capitalist market, are disposable in their being gadgets that can be thrown away when upgraded, operating in a system that encourages their obsolescence. Moreover, though, they also make the Other human body disposable in the carrying out of intimate relationships and, because in the novel these robots can be customised to resemble specific people, they are symbolic of

the similar expendability of individuals themselves. This expendability, as evidenced by Agamben, is one that functions in a particular political, social and economic system, where life loses its inherent value. This is also a system that has collapsed: Agamben notes the "state of exception" in which individual freedoms are curtailed by a totalitarian state seeking to limit the damages of the current crisis. This "state of exception" can also be found wherever a state is not present or is unable to exercise its sovereign power, as in the dystopian scenario presented in *The Heart Goes Last*.

In *The Heart Goes Last*, sex robots can be read as an example of the disposable body.

Life is not devalued merely in a Cartesian, spiritual sense, but also very clearly in a posthumanist one, because the malleability and expendability of human materiality desacralises the body, as argued for by cyborg theory (Haraway, 2000: 79). However, in *The Heart Goes Last*, the de-sacralisation of human materiality is not a conscious ontological turn to the posthuman, but happens within the wider context of neoliberal capitalism. For example, the Possibilibots, being commodities, are described in economic terms: they are "almost all margin once you've put in the front money. No food to buy, no death as such, and it's multiple use squared" (*Heart*: 239).

Atwood's sex robots also posit ethical questions in their iteration as "Kiddybots"—Possibilibots modeled after children. Exemplifying the complexities of establishing an ethics of the posthuman—if such an ethics is even possible—the existence of Kiddibots ex-



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cites some debate in the novel. On the one hand, their social good is argued by those who see Kiddibots as an alternative to child abuse: "Who knows? Maybe these bots are sparing real kids a whole lot of pain and suffering (...). Keeps the pervs off the streets" (*Heart*: 251). On the other, there are those who suggest that these robots are merely a practice run for perversities to come—an inclination that seems to be a given in the context of the novel, where Possibilibots are assumed to be a taster of their flesh-and-bones models: "once he's practiced on [the sex robot] he'll want the real thing" (*Heart*: 265). Ultimately, however, it is the impulse of neoliberal capitalism that propels the Kiddybots's continued presence on the market: "A lot of customers do buy [them], if you see what I mean (...) This vertical is a big earner for Possibilibots. Hard to argue with the bottom line" (*Heart*: 251).

The existence of Possibilibots also brings into question the idea of the inevitability of progress that is at the heart of advanced capitalism. "I don't think they'll ever replace the living and breathing," says one character, to which another replies: "they said that about e-books. You can't stop progress" (*Heart*: 222). To what extent "progress" assumes a forward movement, however, is not unequivocally stated in the novel, which, as we have seen, also acknowledges the fact that the development of high-end technologies is not synonymous with their use for the common good. It is assumed that the only profit that factors in the advancement of these technologies is economic. Social benefit, if accounted for, is merely a side issue.

Posthuman Death: A Sense of Dignity

In this final section, I want to consider ways of giving death and dying in the posthuman moment or from the posthuman perspective. Both the MaddAddam trilogy

and *The Heart Goes Last* concern themselves in great part with death. The MaddAddam trilogy takes place in a scenario of mass destruction after scientist Crake has invented and distributed a flesh-corroding pill. Death is also at the center of *The Heart Goes Last*, as much of the economy sustaining the utopian community of Consilience/Positron is dependent on organ harvesting through "the Procedure," an institutionalised form of murder.

The existence of Possibilibots also brings into question the idea of the inevitability of progress that is at the heart of advanced capitalism.

Because inflicting death (to others and oneself) is addressed very differently in the MaddAddam trilogy than in *The Heart Goes Last*, a different critical approach has been taken in each case. The first, which chiefly applies to *The Heart Goes Last*, analyses death from the perspective of market capitalism. The second, which most closely applies to the MaddAddam trilogy, is related to Deleuze and Guattari's idea of death as "becoming-imperceptible," which they posit in *A Thousand Plateaus* and is taken up by Braidotti in *The Posthuman*. Braidotti works through this idea, and states that death is a "reversal of all that lives into the roar of the 'chaosmic' echoing chamber of becoming. It marks the generative force of *zoe*, the great animal-machine of the universe, beyond personal individual death" (2013: 136). Death is seen as becoming-one-with-*zoe*, a melting into the generative, ever-changing forces of the



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cosmos. Braidotti makes clear, however, that this is not a transcendentalist spiritual idea, but one born of empiricism and scientific fact; it amounts to “radical immanence” (2013: 136) in the face of the recognition that all that exists is, ultimately, just matter.

As has been noted, death abounds within the MaddAddam trilogy. But far from the genocidal eugenics masterminded by scientist Crake, I would argue that the novels, on the whole, emphasise the importance of dying with dignity. The first character that is accorded such a death is Pilar, a senior member of God's Gardeners and an expert on bees and mushrooms. Pilar, suffering from an irreversible disease, avails herself of her knowledge of mushrooms and, with the aid of Toby, departs from the world in her own terms: “Pilar believed that she was donating herself to the matrix of Life through her own volition, and she also believed that this should be a matter of celebration” (*Year*: 214). She is then buried under an elderberry bush. This interment allows other characters to then come and attempt to interact with her, or her spirit, as she is believed to have assimilated with nature: “I want to do some consulting (...) with Pilar. Who, as you know, is dead (...). I know it's a bit crazy, as the Exfernal World would have said (...). Think of it as a metaphor. I'll be accessing my inner Pilar” (*MaddAddam*: 268).

The way in which the eco-cult of the God's Gardeners views death reminds us of Braidotti's own perspective. For her, “[d]eath is the becomig-imperceptible of the posthuman subject and as such it is part of the cycles of becoming, yet another form of interconnectedness, a vital relationship that links one with other, multiple forces” (2013: 137). In this way, death escapes the pathologising that is characteristic of modern anxiety (as well as transhumanist thought, which ultimately seeks to postpone or stop it). It also defies its integration in the capitalist wheel of wealth generation, turning the self-styling of one's death into a mode of resistance in itself:

“Our beloved Pilar wished to be composted in Heritage Park (...). As you know, an unofficial composting is a risk, as it incurs heavy penalties –the Exfernal World believes that even death itself should be regimented and, above all, paid for—but we will prepare for this event with caution and carry it out with discretion” (*Year*: 219).

As has been noted, death abounds within the MaddAddam trilogy.

Reminiscent of Pilar's death is Toby's own, also self-inflicted in the face of a wasting illness: “Then Toby took her very old packsack, which was pink; and into it she put her jar of Poppy, and also a jar with mushrooms in it that we were told never to touch. And she walked away slowly into the forest, with a stick to help her, and asked us not to follow her” (*MaddAddam*: 473). Becoming-imperceptible, becoming-one-with-zoe is then the way in which Toby and Pilar make sense of the end of their worldly span: in the face of death, they choose to believe in their assimilation with nature against existential despair, and so are immersed in the process of their own perpetuation:

Some say that [Toby] died by herself, and was eaten by vultures (...). Others say she was taken away by Oryx, and is now flying in the forest, at night, in the form of an Owl. Others said that she went to join Pilar, and that her Spirit is in the elderberry bush.

Yet others say that she went to find Zeb, and that he is in the form of a Bear, and that she too is in the form of a Bear, and is with him today. That is the best answer, because it is the happiest; and I have written it down. (*MaddAddam*: 473-4).



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For Braidotti, this continued existence in time, after death, not only rests in the memory of one's life in writing or one's dissolution into the 'chaosmic' forces, but also resides in the perduration of an individual's impact in their surroundings after their death: "The inner coherence of the posthuman subject is held together by the immanence of his/her expressions, acts and interactions with others and by the powers of remembrance, or continuity in time" (2013: 138). In *MaddAddam*, this is corroborated by the emotional response Pilar and Toby's deaths elicit in their communities, making them aspirational figures whose names are willed to "still be spoken in the world, and alive" (*MaddAddam*: 463).

Aside from the Gardener ethos resonating with critical posthumanism's becoming-imperceptible, I would like to note of an opposed view of death that is more tangentially mentioned in the MaddAddam trilogy: cryonics. Cryonics is "an experimental medical procedure that seeks to save lives by placing in low-temperature storage persons who cannot be treated with current medical procedures and who have been declared legally dead, in the hope that technological progress will eventually make it possible to revive them" (Bostrom, 2003: 15). It is therefore an experiment that is firmly rooted in the transhumanist belief in the technological possibility to avoid or delay death. As a product of the belief in the perfectibility of humans and their technologies, as well as a budding new profitable industry, cryonics also features in the MaddAddam trilogy, in the form of the company that offers these services: CryoJeenyus. However, far from being the promising solution to the "problem" of death that transhumanist thought tries to solve, in the MaddAddam trilogy cryonics is seen as a trap for the rich and desperate, capitalising on the human fear of what in the novels is euphemistically referred to a "life-suspending event." To the reader, CryoJeenyus is exposed

as a sham: "[Collecting the corpses was] 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 elusive crap-speak. They had to, considering the business they were in: their two best sales aids being gullibility and unfounded hope" (*MaddAddam*: 384, original italics).

Of course, the resuscitation of a body maintained in cryonic conditions could be theoretically possible in the future—Atwood herself acknowledges that there is nothing in the MaddAddam trilogy by way of "technologies or biobeings" which "[does] not already exist, [is] not under construction, or [is] not possible in theory" (*MaddAddam*: 475). However, MaddAddam clearly does not fathom cryonics as a viable approach or possible alternative to death, and instead, I argue, leans towards the previously explored affirmative vision of death that is prevalent in critical posthumanism. In doing so, it further negates the exceptionality of human life, embracing finitude as a condition of existence and rejecting the anthropocentric mindset that sees human life as more valuable than and separate from others.

In *The Heart Goes Last*, death with dignity also seems to factor in the Consilience/Positron scheme. However, "dignity" is flippantly replaced by death with "respect" in the carrying out of the Procedures. For Charmaine, who performs them, this respect lies on the fact that death is still given by humans, rather than automated, like most other activities taking place at Consilience/Positron: "Maybe soon they'll have robots carrying out the Special Procedures and she'll no longer be required for them. Would that be a good thing? No. Surely the Procedure needs the human factor. It's more respectful" (*Heart*: 84). For Charmaine, giving death seems to be imbued with a certain amount of moral responsibility, a way of "providing an alternative" for those who are



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unable to integrate into the system (*Heart*: 86). The unposed question, then, is whether robots would have the ability to weigh in on the moral implications on their actions, and act accordingly, providing, as Charmaine believes she does, a more “humane” send-off.

Following the pattern of the laser brain operations, death in *The Heart Goes Last* is also starkly gendered: “Most of the Procedures are men, but not all. Though none of the ones she’s done have been women, yet. Women are not so incorrigible: that must be it.” (*Heart*: 85). We know, however, that it is not a matter of corrigibility: after they have served their purpose in the system, the use of men’s bodies for organ farming makes them more valuable in death, while keeping women alive enables their exploitation in light of their marketable sexual value. Furthermore, within advanced capitalism and in conditions of ecological breakdown, women’s reproductive abilities become necessary for the perpetuation of totalitarian systems as well as to fulfill the sexual desires of the elite male ruling class, as Atwood has explored in other texts (most notably *The Handmaid’s Tale*).

Conclusions

I have attempted here to create a brief cartography of Margaret Atwood’s diverse posthumanisms, using to this effect such works as deal more prominently with the fraught relationships of human and non-human subjects among themselves and with their environment. Knowing one’s place in their surroundings has inherent value, as Atwood shows us: “What a lost person needs is a map of the territory, with his own position marked on it so he can see where he is in relation to everything else” (2012: 12). But a map is, first and foremost, a navigational tool, and is virtually useless if it does not provide us with new routes going forward. This cartography can, then, be used to devel-

op new analyses outlining the intersections of Atwood’s work, Canadian speculative fiction more broadly, and the posthuman.

I have tried, then, to provide a nuanced general account of the crossings between Margaret Atwood’s speculative fiction and relevant posthumanist theory.

I have tried, then, to provide a nuanced general account of the crossings between Margaret Atwood’s speculative fiction and relevant posthumanist theory. The osmotic relationship between history and speculative fiction to which I referred in the introduction mirrors, I believe, that existing between literature and theory, and is alive and well, as I have hoped to show, in the consideration of both the MaddAddam trilogy and *The Heart Goes Last*. It also points to their currency with regards to the preoccupations of our age, for, as Braidotti points out, neither literature nor theory take place in the void: “the affective—or zoe/geo/techno-poetic dimension—embodied in the literary, artistic and cultural practices cannot be separated from broader geo-political and theoretical considerations” (2017: 13). This does not negate the fact that, throughout the text, I have mostly held the view that Atwood’s speculative fiction can broadly be seen to align with the brand of posthumanism held by thinkers such as Braidotti and Haraway—namely, vitalist posthumanisms which use the posthuman as a methodological framework for the construction of a productive new humanism that re-



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covers the “humane” that is still capable of residing within the posthuman. Incidentally, Atwood’s MaddAddam trilogy is mentioned in Braidotti and Hlavajova’s *Glossary* as an example of “posthuman literature” which “departs from anthropomorphism to develop [immanent] forms of identification of becoming-earth or becoming-imperceptible” (Lau, 2018: 348). Atwood’s own reluctance to embrace hopelessness in her fiction as a distinctive feature of our times firmly aligns her literary production in an affirmative ethics of possibility that resonates with the aims of critical posthumanism.

Advanced capitalism’s insistence on the provision of measurable results may seem to render the humanities, and especially the arts, redundant. Nevertheless, as Adami argues, “we need more than abstract rules, principles and legal precedents in order to find appropriate solutions to bioethical dilemmas, and literature may represent a tool for bridging the gap between abstract ethical principles and the concrete circumstances of the particular case” (2012: 250). The production of speculative fiction such as Atwood’s, then, becomes a statement of our individual and collective wills to exert affirmative change in society by making it reflect on and account for the damaging behaviours with respect to the environment and one another in which all sociopolitical and technological agents are immersed. By extension, the analysis of this literature, particularly through the very practical lens of posthuman philosophy and theory, is not a fruitless venture born solely of speculative curiosity, but a necessary endeavour that seeks to point out the ways in which literature functions as a peremptory tool for the potentially catastrophic overlooking of our response-ability (to use Haraway’s word) to exercise our *potentia* in meaningful ways. Then, we might be able to obtain an answer to Atwood’s initial question for the writing of *Oryx and Crake*: “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?” (2003: 2). And it may turn out to be that the answer to the latter question is, despite all the difficulties arising from pinpointing a “we,” us.

Works Cited

- Adami, Valentina (2012). “Between Bioethics and Literature: Representations of (post-) human identities in Margaret Atwood’s *Oryx and Crake* and *the Year of the Flood*.” *Pólemos*, 6.2: 249-261.
- Agamben, Giorgio (2005). *State of Exception*. Translated by Kevin Attell, Chicago: U of Chicago P.
- Atwood, Margaret (1985). *The Handmaid’s Tale*. Toronto: McClelland & Stewart.
- ____ (2003). “Perfect Storms: Writing *Oryx and Crake*.” *Mr Shirbegi*, http://shirbegi.weebly.com/uploads/1/3/8/2/13820171/writing_oryx_and_crake_1.pdf.
- ____ (2012). *Survival: A Thematic Guide to Canadian Literature*. Toronto: House of Anansi P.
- ____ (2013). *Oryx and Crake*. London: Virago P.
- ____ (2013). *The Year of the Flood*. London: Virago P.
- ____ (2014). *MaddAddam*. London: Virago P.
- ____ (2015). *The Heart Goes Last*. New York: Doubleday.
- Baily, Doug, *et al.* (1998). “The Transhumanist Declaration.” *Humanity+*, <https://humanityplus.org/philosophy/transhumanist-declaration/>. (Accessed 6 July 2018).
- Bostrom, Nick (2002). “Existential Risks: Analyzing Human Extinction Scenarios and Related Hazards.” *Nick Bostrom’s Home Page*, <https://nickbostrom.com/existential/risks.pdf>. (Accessed 6 July 2018).
- Bostrom, Nick (2003). “The Transhumanist FAQ: A General Introduction.” *Nick Bostrom’s Home Page*.



Mapping the MaddAddam Trilogy and *The Heart Goes Last*: A Cartography of Margaret Atwood's Posthumanisms

- <https://nickbostrom.com/views/transhumanist.pdf>. (Accessed 6 July 2018).
- Braidotti, Rosi (2018). "Introduction." Rosi Braidotti & Maria Hlavajova (eds.), *Posthuman Glossary*. London and New York: Bloomsbury Academic, 1-14.
- ____ (2018). "Posthuman Critical Theory." Rosi Braidotti & Maria Hlavajova (eds.), *Posthuman Glossary*. London and New York: Bloomsbury Academic, 339-342.
- ____ (1-2 March 2017). "Posthuman, All Too Human: The Memoirs and Aspirations of a Posthumanist." The 2017 Tanner Lectures, Yale University. https://tannerlectures.utah.edu/Manuscript_for_Tanners_Foundation_Final_20Oct_01.pdf
- ____ (2013). *The Posthuman*. Cambridge: Polity P.
- Danaher, John (6 July 2015). "Humanism, Transhumanism, and Speculative Posthumanism." *Institute for Ethics and Emerging Technologies*. <https://ieet.org/index.php/IEET2/more/danaher20150706#nav>. (Accessed 6 July 2018).
- Deleuze, Gilles and Félix Guattari (2004). *A Thousand Plateaus: Capitalism and Schizophrenia*. London: Continuum.
- Ferrando, Francesca (2018). "Transhumanism/Posthumanism." Rosi Braidotti & Maria Hlavajova (eds.), *Posthuman Glossary*. London and New York: Bloomsbury Academic, 438-439.
- Fraile Marcos, Ana María (forthcoming). "Free Will, Moral Blindness and Affective Resilience in Margaret Atwood's *The Heart Goes Last*." Marie Carrière, Kit Dobson & Ursula Moser (eds.), *Affect and Writings in Canada: Affect et écritures au Canada*. Edmonton, Alberta: U of Alberta P. (n.p.).
- Genel, Katia (2006). "The Question of Biopower: Foucault and Agamben." *Rethinking Marxism*, 18.1: 43-62.
- Haraway, Donna J (2000). "A Cyborg Manifesto: Science, Technology, and Socialism-Feminism in the Late Twentieth Century." Neil Badmington (ed.), *Posthumanism*. Houndmills (Basingstoke, Hampshire): Macmillan, 69-84.
- Herbrechter, Stefan (2018). "Critical Posthumanism." Rosi Braidotti & Maria Hlavajova (eds.), *Posthuman Glossary*. London and New York: Bloomsbury Academic, 94-96.
- Lau, Carolyn (2018). "Posthuman Literature and Criticism." Rosi Braidotti & Maria Hlavajova (eds.), *Posthuman Glossary*. London and New York: Bloomsbury Academic, 347-349.
- Leonard, Elaine B (2003). *Women, Technology, and the Myth of Progress*. Upper Saddle River, N.J.: Prentice Hall.
- Lyotard, Jean-François (2000). "Can Thought Go On Without a Body?" Neil Badmington (ed.), *Posthumanism*. Houndmills (Basingstoke, Hampshire): Macmillan, 129-140.
- Macpherson, Heidi Slettedahl (2010). *The Cambridge Introduction to Margaret Atwood*. Cambridge: Cambridge UP.
- Mbembé, Joseph-Achille & Libby Meintjes (2003). "Necropolitics." *Public Culture*, 15.1: 11-40.
- More, Max (2013). "The Philosophy of Transhumanism." Max More & Natasha Vita-More (eds.), *The Transhumanist Reader. Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*. Chichester: Wiley-Blackwell, 3-17.
- Roden, David (2018). "Speculative Posthumanism." Rosi Braidotti & Maria Hlavajova (eds.), *Posthuman Glossary*. London and New York: Bloomsbury Academic, 398-401.
- ____ (2015). *Posthuman Life: Philosophy at the Edge of the Human*. London and New York: Routledge.
- Rossini, Manuela. "Bodies." Bruce Clarke & Manuela Rossini (eds.), *The Cambridge Companion to Literature and the Posthuman*. Cambridge: Cambridge UP, 153-169.



Mapping the MaddAddam Trilogy and *The Heart Goes Last*: A Cartography of Margaret Atwood's Posthumanisms

Stec, Carly (7 February 2016). "The Doom Boom: Inside the Survival Industry's Explosive Growth." *ThinkGrowth.org*, <https://thinkgrowth.org/the-doom-boom-inside-the-survival-industry-s-explosive->

[growth-2fece1f6cd6c](#). (Accesed 6 July 2018)

Wolfe, Cary (2010). *What is Posthumanism?* Minnesota: U of Minnesota P.