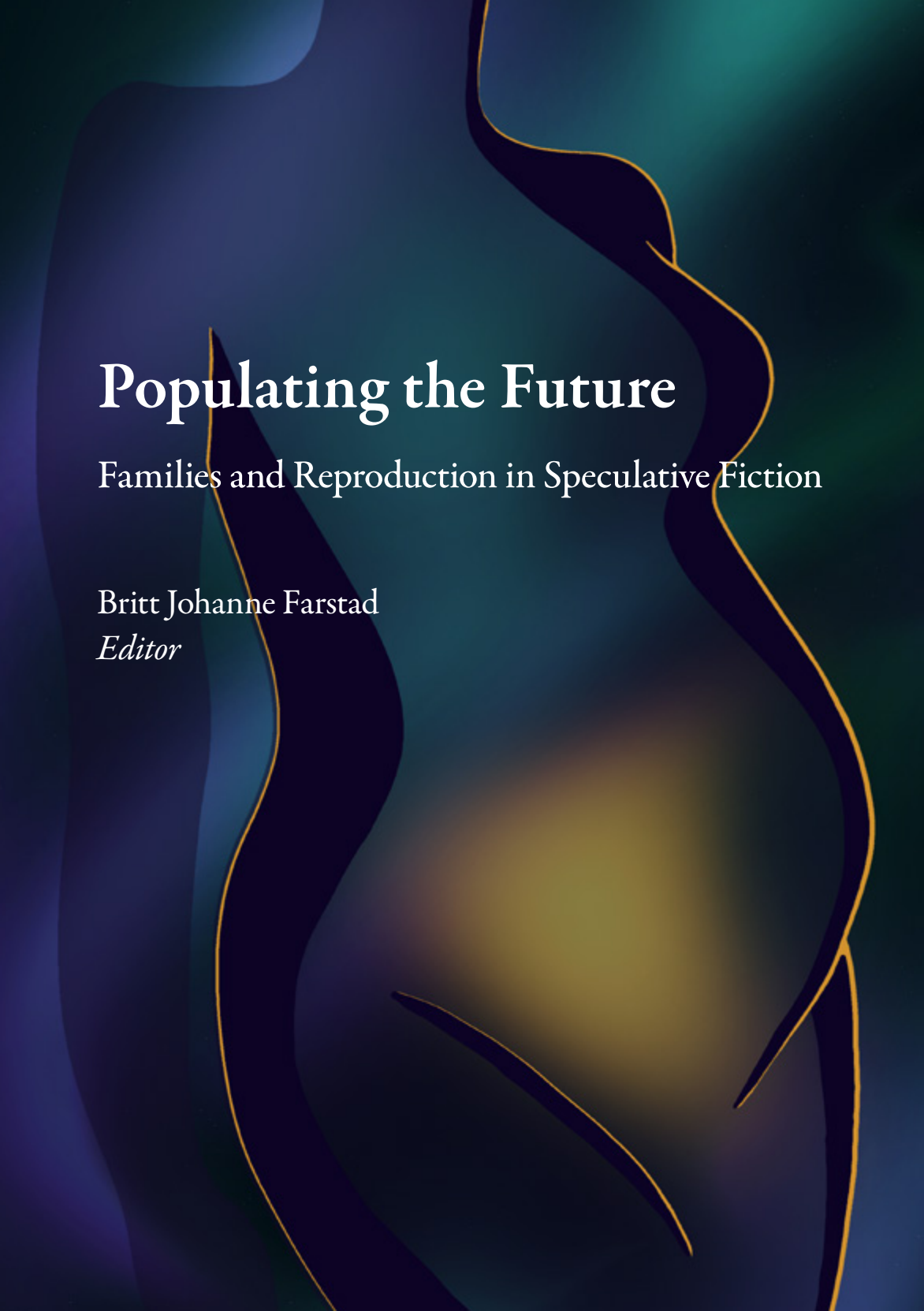

Populating the Future

Families and Reproduction in Speculative Fiction

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Editor

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UNIVERSITY OF GÄVLE

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Britt Johanne Farstad, Lövöudden, 26 April 2023

Britt Johanne Farstad

Introduction

> We need a past that leads to us. Similarly, what we imagine we are working toward does a lot to define what we will consider doable action aimed at producing the future we want and preventing the future we fear.[1]

This book aims to investigate the concept of reproduction as it is imagined in speculative fiction. The focus is on reproduction in science fiction novels, short stories, films and young adult fiction. We investigate how speculative fiction deals with this topic and how it relates to previous concepts of reproduction. Reproductive methods, motherhood and parenthood are now being renegotiated in social, political and cultural arenas. As an experimental thought laboratory, speculative fiction is a good starting point for discussing alternative family structures, reproductive techniques, practices and, above all, the consequences of the choices. The authors of the different chapters relate to fiction and earlier research in the field to contextualise their findings. The emphasis is on examining alternative family structures, mother- and fatherhood, sexual preferences, human offspring as symbioses between humans and aliens, humans and machines, social constructions and ideological backgrounds. Our primary interest is the future offspring from these – in some cases – mysterious relationships and family constellations. The hypothetical methods and fictive results used by speculative fiction authors are worth taking seriously, as will become apparent in the discussions in the various chapters. Theory, fiction and reality that imagine it possible and desirable to separate women and childbirth are discussed from several angles in this volume.

Questions about reproduction have played a significant part in speculative fiction, such as in Mary Shelley's *Frankenstein* (1818), Margaret Atwood's *The Handmaid's Tale* (1985) and, more recently, Karin Tidbeck's

short stories "Beatrice" and "Jagannath" (2018). Reproduction has been – and still is – a subject that challenges us. Mary Shelley's *Frankenstein* continues to interest researchers, and new dissertations focusing on it have been published. For example, Amber Lea Strother's *Speculative sexualities and futuristic families: Representations of reproduction and kinship in science fiction* (2017) is relevant in this context.[2] A section in Emelie Cox-Palmer-White's dissertation, *The Biopolitics of Gender in Science Fiction: Feminism and Female Machines* (2021), also discusses Mary Shelley's novel *Frankenstein*.[3]

Speculative fiction provides an arena for discussing different modes of reproduction and reproductive techniques and how they affect the power dynamics in society.[4] Reproduction is a trope continuously investigated as new authors emerge and new procedures and practices are introduced to society. It is a trope in speculative fiction that offers endless opportunities to explore the essential aspects of childbearing, parenthood, mothering, fathering, biology, responsibilities for future generations, socioeconomic and political structures, the wellknown and the unknown, gender and power structures. Ursula K. le Guin stated that

> when science fiction uses its limitless range of symbol and metaphor novelistically, with the subject at the center, it can show us who we are, and where we are, and what choices face us, with unsurpassed clarity, and with a great and troubling beauty.[5]

In *Primate Visions* (1985), Donna Haraway argues that female writers changed science fiction and used it as potentially creative, new forms of social imagination,

> creative in the sense of mapping out areas where cultural change *could* take place, of envisioning a different order of relationships between people and between people and things, a different conceptualization of social existence, inclusive of physical and material existence.[6]

Marge Piercy writes in the foreword to the latest edition of *Woman on the Edge of Time* (2019) that the point of writing about the future is not to predict it: "I'm not pretending to be Nostradamus. The point of such writing is to influence the present by extrapolating current trends for advancement or detriment".[7] Piercy stresses that the "point of creating futures is to get people to imagine what they want and don't want to happen down the road and maybe do something about it".[8] Marge Piercy also

writes that she is "always interested in who controls technology in any given society at a particular time. (...) Who chooses which technology is explored? Who sets the rules for what is dangerous and what is acceptable risk?"[9] The speculative literature discussed in this volume mirrors the human condition as it is scrutinised in hypothetical future scenarios.

In the chapters of this book, the authors have chosen texts that facilitate discussions about and problematise reproduction. Several novels, short stories and films that are discussed visualise several kinds of 'posthuman' futures. Rosi Braidotti, who appears in several chapters in this volume, writes in *The Posthuman* (2015) that human

> embodiment and subjectivity are currently undergoing a profound mutation. Like all people living in an age of transition, we are not always lucid or clear about where we are going, or even capable of explaining what exactly is happening to and around us.[10]

Based on this assumption, Braidotti argues for a posthuman ethics that departs from the conception that our bodies and lives are constantly questioned and negotiated in the posthuman era. Braidotti believes that human extensions and enhancements of what human bodies are and can do are here to stay. She is also concerned about the global effects of the actions and decisions taken today, thus making it essential to analyse fiction and fantasies about the future and reflect on what we imagine the future might hold and how authors visualise the future of human beings.

Speculative fiction

One of the characteristic narrative elements in speculative fiction is 'estrangement'. Let us start with J. R. R. Tolkien's *On Fairy Stories* (1939), in which he explains 'the fantastic':

> Mooreffoc is a fantastic word, but it could be seen written up in every town in this land. It is Coffee-room, viewed from the inside through a glass door, as it was seen by Dickens on a dark London day; and it was used by Chesterton to denote the queerness of things that have become trite, when they are seen suddenly from a new angle.[11]

In speculative fiction, reality can be viewed from 'the outside', and the familiar can be made 'strange' so that we can see it more clearly. Victor Shklovsky used the term 'ostranenie' – meaning 'defamiliarisation'

or 'estrangement'. Bertolt Brecht used 'Verfremdungseffekt', the idea of combining the mundane and familiar with the unexpected, to make us notice things we are often blind to. 'Estrangement' is an essential tool in speculative fiction. "The King was pregnant" is an iconic phrase from Ursula K. Le Guin's science fiction novel *The Left Hand of Darkness* (1969), which continues a long tradition of discussing reproduction in speculative literature and a starting point for a modern feminist discussion about power, bodies, babies and sex. The phrase is also an excellent example of 'estrangement'. The concept of 'estrangement' was developed further by Darko Suvin when he introduced 'cognitive estrangement' in *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (1979).[12]

Speculative fiction includes what is usually labelled science fiction, fantasy, several subgenres and other nonmimetic genres. Lucie Armitt argues in *Contemporary Women's Fiction* and *The Fantastic* (2000) that "carving up fantasy and the fantastic and jamming its literature into a series of discrete, neatly labelled boxes kills the literature dead"[13] . Brian Attebery has also argued that trying to pin down what fantasy is will, in the end, be counterproductive.[14] Attebery's solution is to think of genres like fantasy and science fiction as 'fuzzy sets', where the borders are constantly changing.

More recently, consensus about the speculative genres has emerged, and the term 'speculative fiction' has become an umbrella to gather rather than divide. Tom Shippey (2016) writes in *Hard Reading: Learning from Science Fiction* that most arguments about definitions "are in the end arguments about a form of words. More productive, and more in tune with the ethos of science fiction itself, would be an argument not about what it is but about how it works, or in many cases doesn't work".[15] In fact, *descriptions* of speculative literature are where most of us working with it end up, given that literary genres emerge, evolve and rapidly change.

Marek Oziewicz writes that the 'fuzzy set field' understanding of speculative fiction "arose in response to the need for a blanket term for a broad range of narrative forms that subvert the post-Enlightenment mindset: one that has long excluded from 'Literature' stories that depart from consensus reality or embraces a different version of reality than the empirical-materialist one".[16] Ozienwicz claims that speculative fiction "emerges as a tool to dismantle the traditional Western cultural bias in favour of literature imitating reality, and as a quest for the recovery of the sense of awe and wonder".[17] Several writers and critics have breached the borders between science fiction and fantasy – to

the extent that it is more common to talk about speculative fiction. Marek Oziewicz's definition of speculative fiction describes the field:

> Like other cultural fields, speculative fiction is a domain of activity that exists not merely through texts but through their production and reception in multiple contexts. The field of speculative fiction groups together extremely diverse forms of non-mimetic fiction operating across different media for the purpose of reflecting on their cultural role, especially as opposed to the work performed by mimetic, or realist narratives.[18]

Criteria that, for some decades, have defined science fiction and separated it from fantasy are no longer helpful. Instead, we would do well to approach speculative fiction as a kind of narrative that takes place in new, different and as yet unknown social, technical and political settings. These authors do what they love to do, need to do and ought to do: expand and challenge thinking, imagination, genre expectations and borders. The forces of nature they describe may differ from those on our planet. As yet unknown social structures, genders, families, reproduction and power are other areas that can surprise us when reading speculative fiction. In the following chapters, speculative fiction is understood as a broad definition of texts that can be science fiction or fantasy, but also as a combination of these genres, especially as several modern authors combine science fiction elements with those from fantasy and vice versa. Earlier defined borders between science fiction and fantasy have become less meaningful. Nonetheless, ongoing discussions about definitions can be advantageous because they generate more energy and creativity in the field than definitions in and of themselves could ever do.

Science and fiction

In this section, some visions of the future are discussed to clarify the somewhat fuzzy areas of science and fiction, which are often understood as unconnected. However, in speculative fiction, they are more closely linked than we might imagine. Scientists, philosophers and authors often work with the same challenges and questions about human life and tend to use hypothetical examples to visualise the possible future consequences of scientific research. But what is the point of imagining the future? Can we 'predict' or synthesise anything from the ongoing activities that give us clues about what might happen in the future? Or are there other rea-

sons why literature about future societies, alternative lifeforms and life conditions is so fascinating?

In *The Aesthetics of Chaos*, Michael Patrick Gillespie states that the "New Physics, which has already had an impact upon the way we think in general, also has specific application to literary criticism, as the procedure of nonlinearity can be employed for a better accommodation of our needs as readers."[19] Gillespie argues that literary critics must consider how science influences fiction and even use unconventional tools to interpret and understand modern literature. Scientific theories use literary metaphors to describe results, just as scientific icons and metaphors are transferred to literature and cultural areas. In *The Exploded Form: The Modernist Novel in America*, James Mellard states that "when the new science exploded the world, it exploded with it the novel as well".[20] Many thus see the importance of understanding the interactions between different scientific areas and cultural expressions. Stuart Peterfreund contends that "language itself is the repository of ideological values and critical and methodological praxis, as well as the boundary between the operational [...] and the valuative".[21] Today's dreams about the future, written by authors and scientists, are the engines that drive change, motivate it, resist it and counteractualise alternatives.

Futuristic scenarios are put forward in many contemporary scientific and philosophical publications. Some of the 'prophetic' or 'visionary minds' publish and collect their thoughts on the website of a worldwide organisation consisting of scientists and philosophers who define themselves as transhumanists. The latest label is 'Humanityplus', or simply H+.[22] Here we can read numerous futuristic visions for human life. In one manifesto, transhumanism is described as "just one point along an evolutionary pathway, and we can learn to reshape our nature in ways we deem desirable and valuable".[23] The argument continues to explain that by applying technology to ourselves, humans can become "something no longer accurately described as human – we can become posthuman".[24] According to the transhumanists' model of thought, man is still at an early stage in an evolutionary chain. The transhumanists aim to promote people's opportunities to develop higher levels of intellectual capacity, improve quality of life as defined by life expectancy and health, and further the individual's freedom to reshape their bodies and lives. The human body is perceived as an 'expression' amongst many others that can be changed and improved beyond recognition. The driving force for the people engaged in Humanityplus is a conviction that a natural step in the development of humanity is

to refuse to accept old age and death. Some also believe it will be possible to transform all human knowledge (and bodies) into digital codes. Transhumanists want to "expand the range of possible future environments for posthuman life, including space colonisation and the creation of rich virtual worlds".[25] They also imagine that a complete symbiosis between technology and man is both possible and desirable and present infinite life as the main goal. Naturally, transhumanists are also immensely interested in reproductive technologies. Articles like the following, to mention but a few, are not science fiction but scientific and philosophical arguments for how humans ought to reshape the future of humanity through reproduction and reproductive techniques: "Transhumanist science will free women from their biological clocks",[26] "The Artificial Reproduction of the Human: The Road of Transhumanism",[27] "Human Genetic Enhancements: A Transhumanist Perspective"[28] and "Reproductive Rights in the Transhuman Future".[29]

One of the most striking and relatively early examples of visions about reproduction and populating the future is microbiologist Lee M. Silver's non-fiction book *Remaking Eden: How Genetic Engineering and Cloning Will Transform the American Family* (1998). Silver uses fiction to highlight scientific statements and convince readers about the necessity of constant progress and 'natural' and 'necessary' changes in the name of evolution. Silver envisions several futuristic possibilities. One is that a child can have two genetic mothers. Another is that parents will soon be able to choose the physical characteristics of their children-to-be, their personalities and talents: "Extensions that were once unimaginable will become indispensable [...] To those parents who can afford them."[30] Silver further argues that genetic enhancement will ultimately and inevitably lead to the dominance of a 'genetic elite'.

What is relevant in this context is Silver's use of speculative fiction. In his argumentation, he uses science fiction as referential material and refers to Aldous Huxley's novel *Brave New World* (1932). According to Silver, Huxley's vision of genetic control now lies within our grasp. He writes, "While Huxley guessed right about the power we would gain over the process of reproduction, I think he was dead wrong when it came to predicting who would use the power."[31] According to Silver, it is "individuals and couples who want to reproduce themselves in their own images, it is individuals and couples who want their children to be happy and successful [and] who will seize control of these new technologies".[32] This scientist also uses fiction as part of his argumentation. Silver's *Remaking Eden* starts with science

fiction-like stories set in distant futures in a prologue called "A glimpse of things to come", where tales of alternative and new ways of getting babies are told. As technology evolves, so does childbearing and the design of the offspring that Silver describes. The book ends with an epilogue of speculative narratives, where one of the last scenes is set in a distant future. The date is 2297, and new humanlike settlers are living on Mars. The very last vision is of an unknown future, where human descendants are space travellers with little in common with human beings as we view ourselves today.

Authors of speculative fiction examine these fields as hypothetical thought experiments. They add potential psychological, personal, political and ethical complications and dangers to their narratives. These authors create complex fictional societies to investigate the possible effects of politics, power, gender and the emotional, personal, collective and global consequences of technology and the development of possible futuristic approaches. In the field of possible human futures, especially concerning reproduction, the boundaries between science and fiction often seem to be blurred. On the one hand, there is the scientists' rhetoric when presenting research and engaging in debates about scientific possibilities, progress and potential problems. On the other hand, we find authors digging into the same questions and creating complex narratives and situations to investigate similar challenges. Correlations between science, philosophy and fiction are part of these discussions in that speculative fiction is closely related to the ongoing debates, technology and politics in today's world.

Feminist speculative fiction and non-fiction

Feminist speculative fiction often discusses gender patterns, social structures and power.[33] Connie Willis writes that science fiction is "all about looking at the universe from different perspectives, about breaking down barriers and considering alternate possibilities. [...] Science Fiction is all about toppling stereotypes and considering alternate futures. It's a genre that by its very nature is open to new ideas, to change".[34] Feminist speculative fiction puts the spotlight on gender inequalities and power structures and visualises different worlds through estrangement. Authors like Ursula K. Le Guin, Joanna Russ and Marge Piercy broke new ground in the 1970s by expanding speculative fiction as a genre. For example, Johanna Russ' novel *The Female Man* (1970 describes four different worlds, all of which present different ways of understanding femininities, masculinities

and reproduction. This and other novels by Russ have had an important impact on Donna Haraway's theories. In "The Cyborg Manifesto", Haraway envisions a world in which a cyborg can be a tool for transgressing the dualistic worldview that predominates today, a world where gender differences and ethnicity no longer have meaning. As Haraway indicates, "Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves."[35]

Roberts states that feminist speculative fiction's long history "may provide clues to how feminism itself can continue, even in in-hospitable climates. Feminist speculative fiction can teach us to rethink traditional, patriarchal notions about science, reproduction, and gender".[36] Feminist writers have found speculative fiction especially useful for highlighting women's situations and opportunities for liberation by investigating alternatives to traditional notions of family, pregnancy, and parenthood. 'Producing children' in new ways has been seen by many feminist intellectuals as the only way of freeing women from what is often regarded as the major obstacle to women's liberation – the patriarchy.[37] After all, society needs children – new citizens – to continue to exist. How has the most significant responsibility for this important undertaking mostly been left to women? Can such a structural problem be solved in new and untraditional ways? Questions like these have often been expressed as hypothetical thought experiments. However, the aim has not been to play but to show the unreasonable situation of women trapped in their biological bodies and, at the same time, in the social body.

Hybrid forms of offspring, future children as a mixture of humans and aliens and humans and machines are all frequent in speculative fiction, as reproduction and family structures have been investigated from different angles over several decades in tandem with the progress of technology. Mental boundaries continue to move as technology makes a greater impact on all aspects of our lives. It is therefore essential to examine how ideas about reproduction and the family continue to take shape in speculative fiction. As will become apparent in the book, there are many ways of approaching these topics. The authors of the different chapters have investigated modern, playful, literary thought experiments, literature, films and bleak futuristic scenarios in speculative fiction.

As indicated, Ursula K. Le Guin's *The Left Hand of Darkness* (1969) is one of the most important science fiction novels to deal with the themes of reproduction and family structures. The novel had a significant impact on

speculative fiction and greatly expanded its thematic repertoire.[38] Conquering new worlds or adventurous travels to new worlds was no longer the main themes as new gender agendas emerged in the genre. In Le Guin's novel, diplomats travel through the galaxies to understand how societies, work, politics, and family life should best be organised. Gender, family life and reproduction are manifested in entirely new ways. One diplomat encounters a planet, Gethen, where every citizen could become pregnant and give birth to a new child. Hence, burden "and privilege are shared out pretty equally; everybody has the same risk to run or choice to make. Therefore, nobody here is quite so free as a free male anywhere else".[39] The result is interesting in that Le Guin depicts the reproductive ways of society and how each person is involved in bringing people to life. There is a collective responsibility and a shared concern for the next generation: "No physiological habit is established, and the mother of several children may be the father of several more."[40] Motherhood is privileged in this society because anyone can be a maternal parent: "I suspect that the distinction between a maternal and a paternal instinct is scarcely worth making; the paternal instinct, the wish to protect, to further, is not a sex-linked characteristic.[41]" Le Guin's thought experiment aims to find out what is left when the traditional categories of male and female are rendered irrelevant.[42] When entering Le Guin's fictive society, we learn that bearing and birthing children and caring about and raising the next generation can be a collective accomplishment.

Several novels were published in the 1970s dealing with the issues broached by Le Guin. Le Guin herself followed up with *The Dispossessed* (1974), Joanna Russ with *The Female Man* (1975), Marge Piercy with *Woman on the Edge of Time* (1976) and Angela Carter with *The Passion of New Eve* (1977), to name but a few. Not all these novels are investigated here, however. Suffice it to say that they are of equal importance when preparing the ground for younger authors and for ongoing discussions about the limitations and possibilities of womanhood, gender and sexuality.

In the 1970s and 1980s, the right to free abortion and control over our bodies was worth fighting for. The same questions were investigated by feminist thinkers as well as authors of fiction. Many notable nonfictional works examine these issues. Adrienne Rich's *Of Woman Born: Motherhood as Experience and Institution* was first published in 1976 but did not gain its rightful place in the debate in the 1970s: "Reviews of this work, in their extremes of applause and denigration, broke all the rules of polite reviewing. Rage was not too strong a term for some reactions."[43] From the beginning,

both the style and response to *Of Woman Born* were intriguing. Rich was perhaps too early in her endeavour to show how the problems of motherhood are connected to social conventions. She was misunderstood when she tried to unveil women's limitations in life due to this 'natural disposition'. Her book later became a canonical text in women's studies generally and for contemporary feminist scholars in particular.[44] Marilyn Dell Brady says this about Rich's book: "Formal research as well as fictional and autobiographical writing by women have begun to create the collective understanding she envisioned."[45]

The optimistic view that social change was not only necessary but also possible during the 1970s has changed. During the 1980s, completely different fictional stories and theoretical texts were published. Richs's book was republished in 1986 with a new introductory text. Here, Rich again states that both men and women are born of women but that: "we know little about the effect on culture of that fact, because women have not been makers and sayers of patriarchal culture". She further stresses that a woman's status as a childbearer has been "made into a major fact of her life. Terms like 'barren' and 'childless' have been used to negate any further identity. The term 'nonfather' does not exist in any realm of social categories".[46] She further maintains that childbearing is both a personal experience and part of an institution, as in the family and society.

Andrea Dworkin's non-fiction book *Right-wing Women: The Politics of Domesticated Females* was published in 1983. She does the same trick as Lee M. Silver and imagines futuristic scenarios to clarify her point. In one of the fictional parts, she envisions a man wanting a child, regardless of whether he is married to an infertile woman or a single person. Dworkin imagines that "he buys the egg and the use of the womb of a surrogate mother—a woman who will accept the introjection of his sperm through artifi¬cial insemination, gestate and give birth to what is contractually established as his child".[47] Dworkin further speculates and imagines that this practice would expand the possibilities of surrogate motherhood: "The uterus is exempt from the immune response. Scientists already can remove the egg of one woman, fertilise it outside her body, then introduce it into a sec¬ond woman's uterus, where it will gestate." Dworkin continues by stating that this has not yet been done, although at the same time maintaining that "there is no technological barrier to doing so". She writes that "these two reproductive technologies—artificial insemination and in vitro fertilisation—enable women to sell their wombs within the terms of the

brothel model". Dworkin's primary concern is that "Motherhood is becoming a new branch of female prostitution with the help of scientists who want access to the womb for experimentation and for power".[48] By mixing facts with fantasy, she makes her points clear.

In the 1980s, the idea of using the reproductive technologies of animal husbandry still seemed farfetched. Now, in the 21st century, it has become a significant industry. Faye Ginsburg and Rayna Rapp write in *The Politics of Reproduction* (1991) that reproduction "is a slippery concept, which tells about the birth, Marxist notions of household maintenance and the constitution of a workforce and ideologies that support the continuity of social systems".[49] Ginsberg and Rapp state that the 1970s proliferation of gender studies "provided a matrix from which a revitalized, feminist scholarship on reproduction emerged". They claim that since the early 1980s, activists and scholars concerned with sexuality's diversity have "produced a rich literature, insisting on the conceptual distinction between sex and reproduction".[50] Although Ginsburg and Rapp do not mention speculative fiction, reproduction is investigated and intensively discussed in both theory and fiction during this period. The question is, could new or other reproductive strategies play important roles in an emancipatory project?

Feminist speculative fiction is an arena in which gender, reproduction and parenthood have been important themes for decades.[51] Marleen S. Barr writes that "when feminist science fiction turns its attention to reproductive technologies, the difference between fiction and fact becomes indistinct", indicating that feminist speculative fiction problematised reproductive techniques long before technology made them accomplishable.[52] Ideas about future generations range from the creation of technological lifeforms and cloning to technological or artificial insemination and surrogacy, to name but a few of the most common themes. In our current society, what used to belong to the realm of fiction has, in some cases, become real, such as medical tools and standard procedures in ultrasound screenings, artificial insemination and biochemical or genetic testing.

The chapters

Jenny Bonnevier (Chapter 2) writes about all-female worlds in "Making Babies and Making Home in an All-Female World: Reproduction, Sexuality and Belonging in Nicola Griffith's *Ammonite*". When constructing all-female worlds, a vital aspect that needs to be rethought is reproduc-

tion. How this has been done varies, likewise the representations of family formations and conceptions of kinship in these narratives. Examining 'reproductive solutions' and how they are represented as parts of cultural, social and political contexts and systems allows us to explore feminist reproductive futurities and ways in which feminism can reformulate reproduction and kinship *per se*, and, more importantly, the connection between them and a future that is free from gender-based oppression.

Bonnevier focuses on Nicola Griffith's novel *Ammonite* (1992), which is set on the all-female planet of Jeep and features Earthborn anthropologist and newcomer to Jeep, Marghe Taishan. The novel reflects the context of other all-female science fiction narrative worlds, such as Gilman's *Herland*, Russ's *Whileaway* and Charnas's *Motherlines*, identifies certain recurrent themes and tropes and highlights how *Ammonite* attempts to rework or – at times – reject these themes. In this way, the analysis aims to do justice to the plurality of feminist positions by focusing on the variations and differences in how these common concerns are tackled. Regarding the connection between sexuality and reproduction in an all-female world, *Ammonite* constitutes what appears to be a decisive refutation of heterosexual normativity and resonates in interesting ways with Russ's *Whileaway*.

Jani Ylönen (Chapter 3) analyses Ian McDonald's *River of Gods* (2004) and Ken MacLeod's Intrusion (2012) as representing two contrasting choices for the regulation of prenatal genetic technology. In the former, the choice of whether to genetically modify their children's DNA before they are born into a capitalist economy is left to the parents, thus limiting the choice to those who can afford it. In the latter, society makes decisions for its citizens. However, in both novels, the discussions about these modifications take place around the kitchen table, thereby concretely connecting them to questions and structures such as public/private, gender and the body.

Ylönen's multidisciplinary framework highlights how discussing a topic that may still seem futuristic or mere speculation is deeply connected to existing discourses. The domestic space, where the scenes are set, underlines how technology and genetic technology are connected to questions of the body, which in these discussions is also considered a space. The science fiction novels demonstrate that questions concerning prenatal modifications relate to gender and agency, which intertwine in complex ways with other discourses. The scenarios presented in these science fiction novels help us imagine the possible effects of prenatal genetic technology and its ethical questions. By operating as moral laboratories, they reveal the connections

between the discourses affecting the discussion and make the complex and abstract questions palatable. As such, they serve as important sites for ethical discussions about genetic technology and the links between theory and technology.

In the chapter "Mother Machine: 'Not the true parent is the woman's womb'" (Chapter 4), I discuss speculative fiction in connection with contemporary debates about fertility techniques and surrogacy in society. The recurring fantasy of 'getting babies' as a phenomenon separated from a mother, a woman giving birth and how this connects to ancient ideas, fiction and fantasies is highlighted and discussed. Commercial surrogacy is discussed in relation to a persistent idea called *male pseudo-generation*. The perspectives of female writers, philosophers and novelists are studied to discuss the dreams, fears, and hopes played out in theory and fiction about current and widespread reproductive practices. In other words, the theories, fiction and realities that imagine that it is possible or desirable to separate women and childbirth are analysed. Speculative fiction authors have highlighted the risks and possibilities of reproduction for some time and experimented with many scenarios to make their point and highlight the obvious flaws in certain human practices.

Outside speculative fiction, surrogacy – at present the most controversial reproductive technique – is making continuous news headlines. "The golden age of surrogacy is here" is one of many headlines from around the world and shows a millionaire playing with his daughter as the happy result of surrogacy.[53] Children can thus be trinkets or tokens of wealth and their mothers' anonymous carriers. Michael Cook calls it "the golden age of commodification of human life".[54] Hence, discussing the ideas flourishing in speculative fiction and science about the future is important. What is today becoming everyday practice has its origins in persistent mindsets. The main point is to show how fiction and reality are intertwined and work together as parts of the same question. We need both perspectives to grasp what is happening in our time and where we want to go in the future.

Young women forced into reproduction have become a theme in young adult fiction. In "'Resisting Motherhood. Reproduction in Young Adult Dystopian Fiction" (Chapter 5), Maria Nilson analyses how young heroines in Young Adult dystopian fiction struggle to survive and change a future in which their freedom is heavily restricted. Nilson uses a selection of American YA dystopias published after Suzanne Collins's *The Hunger Games* from 2008. A recurring theme in these novels is that the human race needs

to survive and to ensure this, women need to have babies. In the novels discussed by Nilson, the heroines are threatened with rape, enslavement, medical experiments, and so on that will curtail their freedom and ultimately kill them – a destiny that they, in most cases, manage to elude. Reproduction thus becomes a tool that those with power use to control young women.

There are interesting exceptions in the sample of books used in Nilson's discussion, where the patriarchal structures portrayed in the novels are so strong that the heroine cannot break them and, in some cases, is reduced to a body, a reproductive tool, to facilitate the survival of the human race. But the recurring theme is that the heroine eludes this fate. The refusal to become a reproductive tool must also be read in dialogue with YA dystopias' blend of dystopian genre traits and traits from the popular romance genre. These dystopian heroines are unwilling to give up their lives to save humanity by having babies, although motherhood could be on the horizon if the potential father is their one true love.

Marinette Grimbeek (Chapter 6) analyses the fiction of Nigerian-American author Nnedi Okorafor, which is distinctly Afrocentric and eschews conventional generic expectations. To some extent, the fiction that Grimbeek discusses can be classified as coming-of-age stories, where their protagonists must reinterpret traditions to survive and thrive. The new family assemblages created by these protagonists are not merely the result of chance but are inextricably linked to whatever degree of agency they have. The first part of Grimbeek's analysis focuses on agential assemblage through naming and storytelling in *Who Fears Death* and the Binti Trilogy. Whilst these are arguably the most unequivocally utopian texts under consideration, agential assemblage is not necessarily benevolent in Okorafor's work.

Science and magic blend in fictional universes where most significant characters, settings and plots are African. One of the ways in which her work rejects Western norms is in its conceptions of family and family constellations. The African cultures depicted are highly sophisticated yet steeped in tradition, to the benefit and detriment of various characters and groups. Yet the conception of family in Okorafor's fiction is rarely static: traditions are inherited and passed on to new generations, but the power of tradition is always shown to lie in its ability to adapt to new technological, climatic or cultural realities. While families and intrafamily relationships appear central to the societies portrayed in Okorafor's work, family ties and tribal allegiances are frequently shown to be keys to individual identity.

A girl or young woman facing new or dangerous challenges without the

support of her family is a recurring motif in Okorafor's oeuvre. These protagonists tend to make their own families throughout the narratives. Such families are not always the result of traditional family relationships: new kin is repeatedly chosen in acts of agential assemblage that either complement or replace biological families. When reading about the family constellations that these protagonists pursue and enter as assemblages, we need to bear in mind that agency is at the literal root of Deleuze and Guattari's notion of agencement,[55] which is conventionally translated as *assemblage*. Issues of power and choice are thus at the heart of the concept of assemblage, which denotes more than just a collection of components combined to create a whole. Okorafor's novels repeatedly articulate utopian desires for changes in family norms and interpersonal and interspecies relations, despite their sometimes dire settings. The assembled families populating her texts are thus both vehicles of individual agency and utopian expressions of malleable traditions.

Together with Sandra Lantz, I analyse Octavia Butler's trilogy, *Lilith's Brood* (Chapter 7). The protagonists are named 'Lilith', 'Akin' and 'Jodahs', and the antagonists, the aliens, are named 'Oankali' and 'Ooloi'. By analysing Butler's naming in the novels, we can add new perspectives and deepen the understanding of the events in this speculation about future human life and reproduction. The interdisciplinary, analytical perspective also involves intertextuality and theories of rituals and myths, as Butler's narrative choice of names implies myths from various cultures.

By elucidating different origins and meanings of names, new understandings of the respective narrative and function in Butler's future world open for new interpretations, insights, and approaches. The trilogy was published at a time when public debates about gene therapy, IVF, and genetic engineering were at a relatively early stage. The novels can be understood as speculation about one possible outcome of genetic engineering. One of Butler's questions seems to be how profound changes human beings can undergo and still consider themselves humans. In *Lilith's Brood*, humans are not engineers but those engineered upon. And in the Oankali laboratory, human beings are the preferred species to experiment on. Lilith as a mythological character throughout time and the Lilith in Butler's novels gain historic immortality as first mothers of new breeds and incubators of non-normative offspring. The narratives portray different hierarchical perspectives, approaches, and agendas by challenging the concept of reproduction and motherhood.

Kevin Pinkham discusses whether procreation is generative or destructive in the chapter "Would You Change Things?' Parental Choice and Child Effect in Arrival and What Happened to Monday" (Chapter 8). The reasons for having children vary from economic, to religious, to societal, and the reasons for not having children often stem from these same factors. While there are many people for whom having a child is not an option, the choice of whether to have children or not is obvious for others. Given biological imperatives and cultural pressures, the default expectation for humans seems to be to procreate. The philosophy of antinatalism, especially as David Benatar espouses it in his book *Better Never to Have Been: The Harm of Coming into Existence*, views bringing a child into existence as a negative act and one that can only increase harm in the universe. Yet despite such philosophies, people continue to procreate. In her book *Why Have Children?* Christine Overall responds to Benatar's antinatalist view, explores the choice to have children and argues for more informed and nuanced choices when considering bringing a child into the world.

Pinkham explores parents' choices about childbirth in two films, *Arrival* (2016) and *What Happened to Monday* (2017). Through the lenses of Benatar and Overall, Pinkham argues that we can better understand what is at stake in the films in the decision to have children, in that they directly address the problem of suffering that arises. The films, in turn, illuminate both Benatar's and Overall's positions, ultimately serving as thought experiments for parents' choices regarding childbirth in the real world. Ultimately, the choice to bring a child into the world is personal, with consequences that can often escape those who choose to become parents. While both films are fiction and do not attempt to portray the choices of real-life parents in the twenty-first century, they can provide an arena, in concert with the views of philosophers such as Benatar and Overall, in which potential parents can explore the larger implications of their choices to procreate.

Emma Tornborg (Chapter 9) examines the short stories 'Beatrice' and 'Jagannath' from Swedish author Karin Tidbeck's short story collection *Jagannath* (2018) from a posthumanist perspective. The unexpected other may also be a symbiosis between man and machine. In this intersection between human, animal and machine, flesh and blood, cables and pistons, Tornborg discusses the short stories and the works of Braidotti and others as a theoretical base. According to Braidotti (2013), posthumanism is a reaction to the European humanist ideal of the Vitruvian man, famously

portrayed by Leonardo da Vinci: a perfectly balanced, functional, white male human. Furthermore, posthumanism suggests a different world order in which human beings stop acting as though they were the masters of the planet. Humans must live side by side with other species, not above them. These two notions affect how we understand the natural sciences, feminism, capitalism and globalisation. They will inevitably lead to a restructuring of power, theoretically and in practice, thereby dissolving the boundaries between humans and other species and between biological creatures and machines (Haraway 2016).

Even though the steampunk atmosphere of 'Beatrice', with its mechanical technology, oil, coal, brass and polished wood, differs a lot from Mother's smelling, moving and oozing body, both stories give the reader opportunities to reflect on subjectivity and objectivity in a world in which humans can no longer claim to be the only sentient beings. They provide new ways of imagining love, sexuality and reproduction. In a world where the boundaries between humans and machines dissolve, we can imagine other kinds of life, life forms and futures. In doing so, we can glimpse ourselves and the norms we conform to.

Nicholas Wanberg (Chapter 10) finds racist discourses in contemporary popular media when he synergises Richard Dyer's readings of white sexual anxiety with readings from the original *Star Wars* film applied to the *Star Wars* prequels. In so doing, Wanberg shows how an inversion of Dyer's classic analogy (now reading 'human as white' instead of 'white as human') can shed light on the hierarchical relationships portrayed in the films. According to Dyer, due to the necessity of sex for the reproduction of white people, certain anxieties are created among whites about the conception of whiteness as defined by spirit, with an implied mastery over the physical body. Meanwhile, readings of the original Star Wars film have identified hierarchies of human over non-human and biological over non-biological, all of which shape the social landscape of the film and those that follow.

Wanberg elaborates on the portrayal of droids as an innocently oppressible minority group in the first film and demonstrates that the social position of the droids is much lower than many earlier writers have acknowledged. Wanberg then expands earlier readings of the prequel trilogy to focus on the presentation of droids by showing how this expresses the same themes of sexual and reproductive anxiety, yet at the same time goes much further by illuminating fears of white vs. non-white reproduction. The same patterns of virgin births (such as in the case of C-3PO's production by a single, non-

droid parent) against corruption by sexuality (as in the 'perverse' production of battle droids by other droids, replete with mechanised sexual imagery) join with the threat of hordes of non-humans (non-whites) out-producing and overrunning the heroes. In so doing, these themes re-enact white sexual and reproductive anxieties on a mythological scale. Wanberg argues for greater attention to human/non-human relationships in analysing popular fiction to better conceptualise and comprehend the manifestations of racist discourse in contemporary popular media.

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Jenny Bonnevier

Making Babies and Making Home in an All-Female World: Reproduction, Sexuality and Belonging in Nicola Griffith's *Ammonite*

All-female worlds, often utopian, are a central part of the feminist science fiction tradition. In constructing these worlds, a vital aspect that authors need to rethink is reproduction. How this has been done varies widely, as do the representations of family formations and conceptions of kinship found in these narratives. Examining 'reproductive solutions' and how they are represented as part of cultural, social, and political contexts and systems allows us to explore feminist reproductive futurities; that is, we can explore ways in which feminism can reformulate conceptions of both reproduction and kinship, and—importantly—possible connections between these and a future free from genderbased oppression.

In this text, I focus on Nicola Griffith's novel *Ammonite* (1992), which is set on the all-female planet of Jeep and follows the experiences of Earthborn anthropologist and newcomer to Jeep, Marghe Taishan. The novel is first put in the context of other all-female sf narrative worlds, such as Gilman's *Herland* (1915), Russ's Whileaway (a parallel universe found in "When It Changed" (1972) and *The Female Man* (1975)) and Charnas's *Motherlines* (1978), in order to identify certain recurrent themes and tropes and highlight how *Ammonite* reworks these themes. In this way, the discussion aims to do justice to the plurality of feminist positions, focusing on varia-

tions and differences in how these common concerns are tackled. Although *Ammonite* does not claim to be utopian, the novel still largely comes across as such and speaks to this tradition, as is also noted in *The Science Fiction Handbook*, where the novel is said to be an "update of the feminist utopian tradition of the 1970s."[1]

In the subsequent discussion of *Ammonite*, there are three thematic foci. The first theme to be explored is how the novel represents reproduction not only as a biological process but also as a mental one; secondly, sexuality and its connection to reproduction on Jeep will be discussed. The third theme is the notion of belonging, of being part of a world or community and how the novel connects this experience to reproduction. While all three thematic foci are clear in the novel, the main thematic concern comes across as that of belonging, which is explored both through the protagonist's personal history and the sometimesviolent conflicts between the different groups on Jeep. By reading sexuality, reproduction and belonging as forming an intricate weft of meaning in the novel, the analysis aims to highlight reproductive re-conceptions as a central aspect of not only *Ammonite*, but of feminist futurities. In terms of the connection between sexuality and reproduction in an all-female world, *Ammonite* constitutes what I find to be a powerful refutation of heterosexual normativity and resonates in interesting ways with Russ's Whileaway. The emphasis on belonging in the novel and, in particular, belonging represented as part of a biological process that involves changes to the genetic makeup of the inhabitants of Jeep, is interesting in the understandings of matter that it opens up. Since the analysis will focus how the text links biological material on the one hand, and cultural, social, and mental processes, on the other, materialist feminist conceptions of matter as agential forms a theoretical background. The connections between genetics and belonging also means that the novel is highly topical at a time when we increasingly talk about identity and kinship in terms of DNA, as evidenced for instance in the growing number of online DNA tests and services designed to help people find a supposed national or cultural heritage or their more immediate heritage in the form of biological kin. *Ammonite* thus speaks to the feminist sf tradition of which it is part as well as to the present moment.[2] As feminists at a time when questions about human survival and a planetary future are more topical than ever, we need to actively imagine and formulate avenues of change that resist not only gendered oppression but also exploitative and extractive anthropocentric logics. In doing this, we do well to employ works such as *Ammonite* and the tradition they draw on and contribute to as texts to think with and through.

Ammonite and a Feminist Utopian Science Fiction Tradition

Griffith's *Ammonite* is set on the planet Jeep in a distant future when exploitation and colonization are universewide rather than worldwide. People from Earth colonized the planet centuries earlier but lost contact with the colonizers, and the planet is now under re-colonization by the Durallium Company. This is generally referred to as Company, a profithungry corporation that often engages in unethical behavior. A virus infects their first (re)settlement, killing all the men and about twenty percent of the women, and quarantine is established. Marghe Taishan, an anthropologist-linguist, is sent down primarily as a test subject for a newly developed vaccine but also to learn about the all-female native population, that is, the original colonizers. During her journeys to discover their history and the mysteries surrounding them, primarily their method of reproduction, Marghe is kidnapped by the Echraidhe tribe. She eventually manages to flee and almost dies in the severe winter storms but is rescued and makes a life for herself in the community of Ollfoss. Believing the vaccine to be a failure, Company blows up the orbiting space station and leaves the planet. However, it is understood that they might return and that this would pose a threat to both the original settlers and the women who have now made the planet their home.

Although all-female feminist utopias look different in many respects, they usually share some common traits. The setting is often rural, sometimes evoking pastoral idylls as in *Herland's* bountiful gardens, and sometimes harsher landscapes as in the "grasslands" of Charnas's *Motherlines*. Russ's Whileaway in *The Female Man* also comes across as rural, even though certain scenes and information suggest that the setting is more complex. Often, Fredric Jameson's term "world-reduction" appears apt. To convey the utopian core, the worlds presented cannot be too complex, too rich; Jameson describes the process as one of "ontological attenuation in which the sheer teeming multiplicity of what exists, of what we call reality, is deliberately thinned and weeded out."[3] Rural and often barren settings are part of this "weeding" process, an aspect of Le Guin's utopian work in both *The Left Hand of Darkness* and *The Dispossessed* that Jameson discusses. Even if *Ammonite* does not claim to be a utopia, the novel employs world-reduction to create a backdrop for Marghe's development. This comes across most clearly in the sections narrating her captivity with the Echraidhe, whose cold, snow and icefilled empty plains evoke Le Guin's Winter in *The Left Hand of Darkness*. However, as we will see, Marghe's subsequent physical

and psychological movement is one of immersion in a rich web of connectedness, thus suggesting other ways of structuring utopian experiences.

Some aspects of this immersion are sexual. The role of sexuality in feminist all-female worlds[4] has changed over the last century. In Charlotte Perkins Gilman's *Herland* (1915), an all-female utopia is an asexual world per definition, heterosexual normativity being so hegemonic as to make a utopian lesbian sexuality apparently unwritable. In this textual world, the reintroduction of men equals the reintroduction of both sex and romance. In Joanna Russ's *The Female Man* (1975), the protagonist Janet from all-female Whileaway guffaws at the idea that no men should mean no sex, but she does so in a fictional version of the contemporary 1970s US, where her response is met with a matching incredulity, and not only from men. A response from Griffith's agent to her second novel *Slow River* shows that the heterosexist norm is in no way eclipsed. This is how Griffith retells the conversation in "War Machine, Time Machine:"

> Not long after I sent the Slow River outline to Fran, my agent, she called:
> 'This is not a selling outline.'
> 'Why not?'
> 'Well,' she said, 'in *Ammonite* Marghe had a girlfriend because she had no choice, poor thing. But why does Lore like girls?'
> 'Because she is a dyke, Fran,' I said, and I fired her.[5]

Even when sexuality is present in these all-female worlds, it is typically separated from reproduction. As we know, severing the link between heterosexual intercourse and reproduction (through contraceptives and abortion) has been one of the central struggles of 20th century feminism. However, in feminist imaginary constructions of reproduction in all-female worlds there is no such pre-existing link. Rather, connecting sexual acts and reproduction is a choice, and one that is rare. Instead, reproduction often takes place in apparently non-sexual environments or circumstances. For instance, the merging of ova that constitutes conception in Russ's Whileaway is just mentioned in passing, but there is nothing to suggest that the procedure involves sexual acts. Other solutions have been received as more provocative, such as the Riding Women in Charnas's *Motherlines* using a stallion as part of the reproductive process. While not involving an actual genetic mixing, the stallion's semen is necessary for reproduction and the ritualistic mating described in the novel has both mythological and sexual dimensions.

On Jeep, as we will see, there is a connection between sexuality and reproduction, but not a straightforward one. Indeed, the character of this connection suggests a recognition of sexuality as not necessarily predicated on the logic of the couple. Both mental and physical closeness are important, and the novel refuses clear distinctions between biological and mental processes. Thus, the link between reproduction and sexuality is not severed in *Ammonite*. Rather, the novel constructs several new links in a web of reproductive connectedness. This web is constitutive of the third aspect to be discussed here – that of the connection between reproduction and belonging. Belonging – making a home – is a main concern in the novel. In this, it draws on the tradition of the 'visitor to utopia' whose shifting reactions are supposed to mirror those of an intended reader. However, the centrality of Marghe's personal development is unusual and moves the novel out of this tradition, in that it asks readers to relate to her personal experience rather than react to social principles or structures. Following the lead of Wendy Gay Pearson in "Towards a Queer Genealogy of SF," Marghe's struggle to find this home (a struggle that is not only made difficult by the circumstances she faces, but equally by her own resistance) can be read as analogous to the uses to which the genre of sf itself can be put by marginalized or oppressed groups.

> It comes down to this: in a world where so many of us are unable to find a home, a place which is both materially and affectively livable, should we not all be able, at the very least, to find a home amongst the seemingly infinite planes of the imagination? ... If, indeed, what makes life unlivable for us is the way in which our world's understanding of gender and sexuality categorizes us as incomprehensible, insane or even inhuman, is not science fiction one of the places we might turn to find our own humanity even in the very figure of the alien him/her/itself?[6]

The idea of a feminist futurity as a place where we 'find our own humanity … in the … alien' is returned to at the end of this chapter.

As this very brief insertion of *Ammonite* into a feminist utopian sf tradition has indicated, the novel certainly speaks to this tradition but just as clearly does so with a selfconscious difference, to some extent with an agenda to make a difference. Griffith acknowledges that "[she] couldn't have written *Ammonite* without the trail-blazing of Russ and Le Guin and Wittig."[7] However, as she stresses in another text, she is "tired of womenonly worlds where all the characters are wise, kind, beautiful, stern seven-feet-tall vegetarian amazons who would never dream of killing anyone. [...] Women are

not inherently passive or dominant, maternal or vicious. We are all different. We are people."[8] This position is clearly conveyed by the novel, portraying societies that in varying degrees include conflicts and violence; nevertheless, a utopian sense of the possibilities of an all-female world remains, at least for me as a reader. This utopian sense points, indeed, to the fact that a world in which women are recognized as fully human in all the variety that this entails is in itself utopian. In this way, too, *Ammonite* writes itself into a feminist utopian tradition. As Charnas explains about writing *Motherlines*:

> With the spectrum of human behavior in my story no longer split into male roles... and female roles..., my emerging women had natural access to the entire range of human behavior. They acted new roles appropriate to social relationships among a society of equals, which allowed them to behave simply as human beings—tenderly, aggressively, nurturingly, intellectually, intuitively...[9]

Both *Ammonite* and *Motherlines*, then, eminently exemplify the potential of all-female worlds in helping feminists think differently about the present. In addition to this, *Ammonite's* engagement with conception and pregnancy as both biological and mental processes—and the concomitant challenging of any easy distinction between the two—and its embedding of reproduction within webs of connectedness, posits the making of babies as a key utopian moment.

Reproduction in Body and Mind

The first thing to take note of when it comes to reproduction in *Ammonite* is that families are not organized around the making of babies; while mothering or nurturing activities certainly take place within families, they do not depend on them, nor are they restricted to them. At the same time, there is not a complete separation between family structures and reproductive activities or relationships. Families are largely made by choice, choices that can be based on romantic or other forms of love and affection, but that are also motivated by material advantages or the gaining of prestige. The complexity of family constructions is also a result of the fact that, on Jeep, reproduction is achieved in two different ways that have different implications for kinship structures. Figuring out how reproduction works among the all-female, Earth-originating population of Jeep is one of the main plot drivers of the novel, together with, and

increasingly explicitly linked to, the threat of the virus. This virus is the mysterious main antagonist, but also, as we gradually learn, the enabler of new life for the women of Jeep, including Marghe and the other newcomers. Through the central role that the virus plays, the novel explores matter as agential, resonating with works of material feminism[10] (see e.g. Alaimo, Alaimo and Hekman, Barad, and Bennett). Indeed, Bennett's description of her influential work *Vibrant Matter* (2010) as "an ontostory that plays with and begins to play out the idea that non-human things and forces actively shape the bodies they encounter, including the humans who never fully possess or control them"[11] reads as an apt description of the virus as such a non-human force.

Without tracing the long and gradual process of Marghe's learning how reproduction on Jeep works in detail, it is worth noting that we first follow Marghe's observations based on what she hears and sees of the Echraidhe and later the Ollfoss communities she lives in, in the form of her anthropologist's notes on kinship structures. The conclusions she draws are sketchy and tentative and when we finally encounter the process in more detail, we do so through Marghe's first-hand experience. This transition in perspective reflects Marghe's own trajectory from observer to participant, from isolated professional who remains in control through distancing devices such as her recorder, to a member of a family and a community. Thus, the way in which reproduction is narrated brings to the fore its role in Marghe's process of belonging. In the novel there is no expository explanation of exactly how the process works, how genetic variation comes about or what the role of the virus is. This remains something for researchers to figure out. The fact that the reader is not presented with a factual exposé or 'revelation' of the truth about reproductive functions further emphasizes reproduction as lived experience, rather than object of study.

The women of Jeep can reproduce through a form of parthenogenesis, thus drawing on a long feminist tradition that notably includes *Herland*. This virgin birth, as is clear in Gilman's utopia, typically expresses asexuality, the separation of reproduction from sex through the abolishment or cancelling out of sex. As I have argued elsewhere, this has both heterosexist and anti-diversity underpinnings, emphasizing cultural and social homogeneity and stability based on genetic homogeneity. However, *Ammonite* does something very different with parthenogenesis, something that depends on the blurring of boundaries between what we define as mind and body. Whereas the process of parthenogenesis is often left unexplored and simply

presented as a biological fact in passing, in *Ammonite* it is an important part of the narrative. Unlike, for instance, Charnas's Riding Women and their use of horse semen to start the process of parthenogenesis, in *Ammonite* the development of a fetus does not start with a biological prompter of any kind; instead, it is initiated through a mental process called deepsearch, through which people can experience and control their autonomous bodily systems. While the reader is never shown parthenogenetic reproduction through individual deepsearch in the novel, deepsearch generally is emphatically shown to be an intimate experience that puts the person into close contact with herself, the physical world around her and her own history. Children conceived in this way share their mother's genetic make-up. Marghe thinks of them in terms of twins, as when she observes Aoife and her daughter Marac: "Marghe looked over at Aoife's face, all hollow and muscle, and wondered if it had ever been as soft as her daughter's, even before the scar. Aoife and Marac were identical twins, separated in looks only by time and circumstance."[1213] This process, while strange, is something that Marghe can conceptualize. But there is another form of parthenogenesis that Marghe struggles to understand. She discovers that there are daughters who do not look like their mothers' twins and realizes that these daughters all have something called "soestre," a sister of a kind but a girl born of another woman. Marghe comes to realize that: "Being soestre must have something, somehow, to do with the alteration of genetic information passed from mother to daughter."[14]

Marghe continues to learn about this phenomenon but finds it hard to accept: "'The term soestre means those who are born after their mothers somehow synchronize their biorhythms and, through a process which I assume bears similarities to the control by a trained person of her otherwise autonomic nervous system, stimulate each other's ova to divide.'"[15] While we do not learn the details of how this works, we do experience it through Marghe. Again, there is a textual move from her previous life as a researcher to her experiences on Jeep that neatly corresponds to the overall development of her character. Before arriving on Jeep, Marghe has learnt – first through yoga, then through medically supervised biofeedback techniques – to control her physical responses to stress, fear and other strong emotions and early in the novel we learn that "[s]he had hoped to write a paper on biofeedback, autogenics, and the super-normal experience in myth."[16] Instead, this is exactly what she comes to experience at first hand as she learns about the control the Jeepians exert over their reproduction, a control that results in soestre, which in turn is a phenomenon that to Marghe's mind moves in

the borderlands of the mythically impossible. When she experiences it herself the process is strikingly real, as we will see, highlighting how what does not make sense when studied from the outside can become both real and meaningful when experienced. The process of reproduction, then, whether it be one woman's creation of a daughter or two women's creation of soestre, is both a mental and a biological process. Conception is achieved through mental stimulation and the ability to do this is conferred through the virus that is an endemic part of Jeep. Thus, biology and mind are not only inextricably linked in reproduction, but the very distinction between them becomes difficult—perhaps even meaningless—to uphold.

By way of illustration, the following passage describes Marghe's experience of linked deepsearch with her lover Thenike:

> And Marghe was standing before the cathedral that was Thenike's body and all its systems, as Thenike stood before hers. She stepped inside. It stretched far over her head, a vast, echoing space. She wandered, laying a hand here, against the muscles sheathing the stomach, a hand there, between ribs. She stopped and looked in a side chapel where bronchioles narrowed to alveoli. She wandered on, noting cells and bones and connective tissues, glands and tubes. Ovaries.[17]

The description of Marghe moving mentally through Thenike's body is markedly physical. She not only sees but also touches the space and lays her hands on Thenike. Furthermore, the metaphor of the cathedral adds to the blurring of boundaries between mind, or soul, and body. Marghe then watches Thenike ovulate, aware of the same thing happening in her own body and notes the electrum thread that is the virus.

> Marghe stepped closer, reached out cautiously. The electrum thread inside shimmered and sang, and the ovum almost . . . changed. Marghe withdrew her hand.
> The virus had altered everything. She saw how she could change the chromosomes, how she could rearrange the pairs of alleles on each one. If she reached in and touched *this*, enfolded *that*, the cell would begin to divide. And she could control it – she and Thenike could control it.
> Marghe felt the connecting tension as Thenike stood waiting.
> She could do it. She would do it; Thenike would match her.
> She reached out again and the thrumming electrum strand that was the virus coiled and flexed and the cell divided. Marghe searched her memory of those long ago biology lessons: mitosis. But altered, tightly controlled and compressed by the snaking virus until it resembled a truncated meiosis.

> Chromosomes began their stately dance, pairing and parting, chromatids joining and breaking again at their chiasmata, each with slightly rearranged genetic material. ...
> As they multiplied, Marghe felt the tight tension, the connection between these cells that would divide and multiply inside Thenike, and those that would grow inside her own body: fetuses. Fetuses that might one day be born as soestre.[18]

Reaching out and touching are verbs that connote physicality, but ones that are also used to carry metaphorical emotional or mental meanings, do both at the same time in this passage. Although the reaching out is mental, it affects biological change. Tensions and connections are physical realities but happen equally between biological components that touch and interact, as through the mental connection between Thenike and Marghe. The distinction between the two sets of meaning, the literal or physical and the metaphorical or mental, becomes pointless. The explanation of the biological process itself follows a similar pattern. While the description of mitosis turned into meiosis, enabling genetic diversity and a diploid progeny, draws on biological knowledge about how these processes work in non-mammal earth species and thus constructs a biological reality, the description of a connection between the cells making up the embryo in Marghe's own body with the embryo in Thenike's body moves this biological reality into an arena of metaphor, again unsettling any stable distinctions.

Reproduction and Sexuality

Parthenogenesis on Jeep, then, is both a mental and a biological process, but how should the relationship between reproduction and sexuality be understood? The definition of parthenogenesis (from the Greek words for virgin and creation) is asexual reproduction, emphasizing that it is managed by a sole individual. As we have seen, reproduction in *Ammonite* does not conform to this definition. While conception achieved on your own and that achieved together with somebody else result in different fetal genetic properties, the processes appear to be basically the same. An appropriate analogy would be masturbation and intercourse. We never witness the start of a pregnancy achieved by a woman on her own in the novel, so to what extent this process entails dimensions of sexual pleasure is left out of the story. However, from descriptions of deepsearch, the process likely involves an intense sense of presence, a being in oneself that is

clearly both a mental and a physical experience similar to the creation of soestre. That the experience of making soestre has – or at least can have – sexual dimensions is clear. The opening of the scene between Marghe and Thenike cited above reads as unequivocally sexual, signalling intercourse in not very subtle ways:

> 'Put your hand on mine. Feel the pulse in each fingertip, mine and yours. Yours and mine.' Thenike slid on top of her, muscle on muscle, her mouth an inch from Marghe's. 'Breathe with me. Breathe my breath.'
> It was hot; their skin was hot, and their breath. In and out, in and out. And Marghe gave up everything, gave her breath to Thenike, took Thenike's into her lungs. Then their arms were wrapped around each other, eyes open, staring deep, and Marghe let herself slide down that long deep slope, that slippery slope, sinking in, right in, right down, until she *was* Thenike, was Thenike's pulse, Thenike's breath, until she could skip back and forth, her breath, Thenike's breath, back and forth. Back and forth.[19]

In addition to physical intimacy, the repetition of reciprocal movement that characterizes the passage emphasizes that not only has making soestre sexual dimensions, but the closeness involved is also both intense and reciprocal. This experience is a far cry from the virgin maidens of *Herland*. But while reproduction has sexual components, and in particular the conception of soestre requires both physical and mental intimacy, without the sexual differentiation of gametes, sexuality is not reduced to a vehicle for reproduction.

Indeed, one of the strengths of the novel is its portrayal of sexuality on an all-female world as simply human. Heterosexuality is not present as a point of reference, comparison, or contrast – men are neither missed, nor is their absence celebrated. Sexuality is a human experience. As Marghe witnesses two women kissing at a gathering, she becomes aroused and embraces this emotion: "She could have taken her sexual energy and smoothed it down, but she wanted to let it burn through her, she wanted to enjoy being alive."[20] To me, descriptions of physical attraction appear to avoid falling into the gendered stereotypes that typically code them in a heterosexual economy. One instance of such a balancing act is when Marghe watches Thenike in the bath house, before they have become lovers: "She had pinned her braid on top of her head, and the ladder rungs threw shadows over the tight stomach and lean slabs of muscle over her ribs. Hard muscle, soft skin, taut sinew. Marghe wondered how that would feel."[21] Traditionally female markers such as "braid" and "soft" are seamlessly combined with the equally tradi-

tional masculine ones of "slabs of muscle," "hard" and "lean" and the result conveys Marghe's sexual attraction to Thenike in ways that affirm a present relationship, rather than a missing, or missed, heterosexual relationship. In their first attempt to link together in deepsearch, after having lived together to let their minds and bodies become synchronous in their rhythms,

> they lay facing each other, naked, skin to skin. They stroked each other's face, hands, arms. Rested fingertips on the pulse at the other's wrist. Marghe's forehead was damp with perspiration, and they were both breathing fast. ...
> 'Is this it [deepsearch]?' Marghe asked. She was scared.
> 'No. This is something different. Do you feel it?' She touched Marghe's forehead with a fingertip. Marghe's bones seemed full of hot, liquid gold. She could feel the heat of Thenike's belly and groin close to her own.[22]

They go on to have sex, making clear how close the mental connection involved in deepsearch is to physical intimacy, how sexuality is part of the web that connects mental and biological aspects and thus makes Jeepian reproduction possible. The passage simultaneously emphasizes that sex and reproduction can neither be equated, nor causally connected. Both reproduction and sexuality are materially and discursively completely disconnected from heterosexuality in the novel in a successful erasure of heterosexual normativity. However, the dyadic logic, while challenged, remains more intact in the novel's engagement with both reproduction and sexuality. The absence of descriptions of 'one person parthenogenesis' leaves unexplored possibilities of primarily reproduction but to some extent also sexuality as disconnected from a dyad of lovers.

Reproduction and Belonging

As already indicated, the linked deepsearch through which soestre are conceived is related to the trance used by a young girl to search for her adult name in a rite of passage that involves delving into one's past. Deepsearch is thus central to the creation of ties of belonging that stretch across time and is consequently a good starting point for discussing the third foci of this article — that of belonging and its links to reproduction. Marghe notes that "[t]he deep trancing necessary for reproduction has acquired mystical aspects for the Echraidhe. The rite of passage is attended by a ritual trance, called deepsearch, which, the Echraidhe claim, allows the adolescent to somehow access the memories of her

ancestors."[23] This turns out to be true in a literal sense, as Marghe herself eventually experiences. In addition to making reproduction possible, the virus also enables storage of and access to memories through the DNA of the women of Jeep. Through the mental process of deepsearch and the biological component of the virus, the making of a future through procreation and the experiencing of a past are not only made possible but are also simultaneously inextricably connected. This connectedness not only challenges our notions of the relationship between past and future, but also the distinction between personal memory and cultural memory. Connection to communal memories also entails connection to place, sometimes in potentially problematic ways. As Thenike tells Marghe: "There are those who know their village so well, through the eyes and hearts of so many before them, that they … can't bear to place their feet on a path they have never trodden, on soil they have never planted with a thousand seeds in some past life as lover or child."[24] What might be problematic on a personal level can also pose a threat at a community level. Thenike explains the increasing destructiveness of the Echraidhe tribe in terms of shared history: "Because their sisters' mothers are also their choose-mothers' sisters. They're born too close. All their memories interlock and look down the same path to the same places. Each memory reflects another, repeats, reinforces, until the known becomes the only."[25] Thenike herself is "fortunate enough to have the memories of a thousand different foremothers, some clear, some not."[26] A need for cultural diversity is thus indistinguishable from a need for genetic diversity. Parthenogenesis in *Ammonite*, then, is certainly not a celebration of homogeneity. It is suggested that the virus can even transfer memories from non-human sentient beings, opening up the possibility of transspecies genetic and cultural communication.

For Marghe — the outsider-protagonist so common in utopian traditions — her narrative journey is, as we have begun to see, about belonging; her professional identity as an observer must be cast off as she learns to belong. However, this is not only about learning to feel at home in a new world. The narrative is very much an existential one about daring to be hurt, to be vulnerable. Marghe, who has never made a home anywhere, brings habits of distancing and control formed over a lifetime to Jeep. While children are recognized as important for the survival of the women of Jeep (the threat of the powerful Company developing a vaccine to eradicate the virus that would render them infertile remains throughout the novel), pregnancy

at an individual level is not presented as ultimate self-fulfilment, or even as something to be particularly longed for. Once she has survived the virus, Marghe is desperate to learn to deepsearch, to connect with the world and with herself, finding her own identity, through finding her name. She succeeds in both:

> She had been inside herself in a way she had never thought possible; listening to her body as a whole, a magnificent, healthy whole. And she had done more: reliving memories of her childhood she had forgotten ... days of communication between herself now and herself of many thens... and now she was herself and more. The complete one.[27]

But, significantly, being complete is not about being alone or self-sufficient. "They were connected: the world, her body, her face. Perhaps she should not be asking who she was but, rather, of what she was a part."[28] When she lets the people around her and the world they live in become real to her, she becomes herself. As with the biological-mental experience of conception, this becoming herself through becoming part of Jeep is as much literal as figurative. She has thought that she is forever a stranger, that the planet "could not digest her if it tried. Like cellulose in the gut of a carnivore, she could not be assimilated. Alien."[29] When the virus enters her cells, she reacts in a similar manner, trying to reject it as something alien to her:

> [her body] was no longer entirely hers. The virus lived in it now, in every pore, every cell, every blood vessel and organ. It slid, cold and in control, through her brain. If she recovered, she would never be sure what dreams and memories were her own, and which were alien. ... 'In me,' she gasped. 'Unclean.'[30]

Marghe experiences the virus as not only threatening her biological distinctness and unity, but also her mental or spiritual individuality. Thenike responds that her body is "changing, just as it does every time you get sick and another little piece of something comes to live inside you. … Is this unclean? No, this is life. All life connects."[31] Becoming fully herself means immersing herself in the world, accepting the world in her, the virus in her cells, but also Thenike in her mind. It means accepting that the borders between self and others are porous; they are membranes that make biological as well as mental exchange possible. This understanding of human life as not only inescapably embedded in the more-than-human

world, but also as permeable, evokes Stacy Alaimo's concept of "trans-corporeality" which "underlines the extent to which the substance of the human is ultimately inseparable from 'the environment.'"[32]

Wanting to explore herself in more depth, Marghe needs to link with Thenike, since she knows she cannot go into such a deep trance on her own. The result – the conception of soestre – has been discussed above. The combined expression of this connectedness and the combined potential result is the creation of new life. Her newly discovered name is Marghe Amun and, as her dead mother tells her, while giving her an ammonite that sinks into her palm and becomes one with her, the ammonite is named after Amun "the ram-headed god of Thebes:" "His name, Amun, means 'complete one.' He acquired the power of fertility formerly invested in Min, the ancient Egyptian god of reproduction."[33] Accepting her new complete self means accepting her own reproductive power – making a baby is simultaneously becoming herself and making home. When she is reunited with one of the other newcomers to Jeep again, this woman fearfully notes that Marghe is different. Marghe thinks about this difference: "There was no way to explain how it felt. How it was to be able to remember in a way she would have thought impossible a year ago; how it felt to only have three fingers on her left hand, to have nearly died. How it felt to have another life growing inside her, to have a partner. A home."[34] Here, bodily harm, near death experiences, a changed connection with the past, having close ties with someone else and being pregnant all come together in the change that is her new complete self, her homecoming. Another company woman who has 'gone native' tells Marghe about the hope that if Marghe can get pregnant she might be able to as well: "Not that I'm sure I want to have a child, you know? We've enough to deal with, with Jink's two. But it would be nice to have the choice. It would make me feel as though I belong."[35] What we see here is not a traditional family ideal where a woman is believed to need a baby to be complete. Rather, reproduction is part and parcel of the intimate belonging in past and present that makes up the world; simultaneously, it is also always a choice.

Family, as has been noted already, is not constituted by procreative units, as this would make no sense in a world of parthenogenesis. But who you share a tent (among some people) or a lodge (among others) with matters. Family units may be flexible, but they are important, partly, I would argue, because of the refusal of clearcut distinctions between mind and body, genes and culture, or time and place. We use the metaphor of a family tree to describe the connections and forms of relatedness constituted by

genes, or blood, and we typically look to the people that make up this tree for identity and meaning – attempting to explain our individuality through theirs. Kinship on Jeep is partly constituted by choice and the family trees, as Marghe observes early, are the places in which families exist, rather than expressions of something inherent in families: "She imagined a family group selecting a tree, bending it, pruning it judiciously as babies were born, girls grew, and old women died. Did the lodge retain its integrity when the tree died?"[36] Marghe later learns that these trees live for hundreds of years, but also that the formation and reformation of these lodges, of these families is constantly ongoing. Webs of kinship that are expressed through (and lived in) the biological reality of growing, changing, and dying trees, rather than through the family tree as a metaphor conferring stable individual identities, highlight interconnectedness, mutual becoming and the fundamentally immersed nature of human life. Reproduction — making babies — is predicated on biological realities such as DNA, but these realities are not carriers of stable truths; rather, they are highly adaptable vehicles of communication, exchange, and change. Belonging — making home — involves an immersion that is predicated on accepting that this process allows the world to change you while you also change it. In other words, both belonging and reproduction involve recognizing the always already relational reality of all life.

Coda

Early in this text, I touched on the question of the novel's utopianism, suggesting that, ironically, *Ammonite's* insistence on women as fully human, including traits such as aggression or violence that are generally considered far from utopian in fact constitutes its main claim to utopianism. Marghe's early struggles with the simultaneous alienness and familiarity of the world and the people she meets neatly summarizes the potential utopianism of the novel.

> A wirrel shrieked. Marghe went very still. This was not Earth; this was Jeep, a planet of alien species, a place where the human template of dual sexes had been torn to shreds and thrown away. This was something new. She knew these people had evolved cultures resting on bases very different from those of any Earth people; she did not know whether that made these women human or something entirely Other.[37] (53)

Being free of this template has indeed rendered women human in *Ammonite*. In fact, one could argue, in ceasing to function as man's Other their humanity finally becomes recognizable, as sexual, reproducing, fully human selves, through their very alienness. In reading *Ammonite*, we can, as Pearson suggests, find "our own humanity" in the "figure of the alien"[38] (73). What Marghe's journey teaches us, resonating with the theoretical work of material feminism, is that this involves embracing change as a result of emotional and bodily immersion, recognizing that being human has always involved existing in and negotiating complex webs of interacting and intraacting matter and meaning.

[1] Keith M. Booker and Anne-Marie Thomas. *The Science Fiction Handbook*. John Wiley & Sons, 2009, p. 151.

[2] From a critical or scholarly perspective, I find *Ammonite* worthwhile for many reasons, some of which have just been mentioned. I was thus somewhat surprised to realize that while Griffith herself is not a marginal figure in sf, almost all the critical attention she has received has focused on her second novel, *Slow River*. *Ammonite* is rarely dealt with at any length, which is the reason for the lack of scholarly 'conversation partners' in the sections of this text that deal most closely with the novel.

[3] Fredric Jameson. "World-Reduction in Le Guin: The Emergence of Utopian Narrative." In *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions*. Fredric Jameson (ed), pp. 267–280. New York: Verso, 2005, p. 271.

[4] It should be remembered that there are numerous all-female fictional worlds constructed to be anything but feminist or make clear anti-feminist points. The overview provided by Victor Grech, Clare Thake-Vasallo, and Ivan Callus in "Single-gendered Worlds in Science Fiction: Better for Whom?" VECTOR #269, shows this, while also demonstrating quite well and probably inadvertently how provocative all-female worlds remain.

[5] Kelley Eskridge and Nicola Griffith. "War Machine, Time Machine." *Queer Universes: Sexualities in Science Fiction*. Wendy Gay Pearson, Veronica Hollinger, and Joan Gordon (eds), 39–50. Liverpool: Liverpool University Press, 2008, p. 44.

[6] Wendy Gay Pearson. "Toward a Queer Genealogy of Science Fiction." *Queer Universes: Sexualities in Science Fiction*. Wendy Gay Pearson, Veronica Hollinger, and Joan Gordon (eds), 72–100. Liverpool: Liverpool University Press, 2008, pp. 72–73.

[7] Kelley Eskridge and Nicola Griffith, "War Machine, Time Machine." p. 43.

[8] Nicola Griffith. "Nicola Griffith talks about writing *Ammonite*." *Ammonite*. Nicola Griffith, pp. 275–276. Del Rey, 2006 (1992).

[9] Suzy McKee Charnas. "A Woman Appeared." *Future Females: A Critical Anthology*. Marleen Barr (ed), 103–108. Bowling Green State University Popular Press, 1981, pp. 106–107.

[10] See, for example, Stacy Alaimo and Susan Hekman (eds). *Material Feminisms*. Bloomington: Indiana University Press, 2008; Stacy Alaimo. *Bodily Natures: Science, Environment, and the Material Self*. Bloomington: Indiana University Press, 2010; Karen Barad. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham and London: Duke University Press, 2007; Jane Bennett. *Vibrant Matter: A Political Ecology of Things*. Durham and London: Duke University Press, 2010.

[11] Jane Bennett. "Vibrant Matter." *Posthuman Glossary*. Rosi Braidotti and Maria Hlavajova (eds), 447–448. London and New York: Bloomsbury Academic, 2018, p. 447.

[12] Nicola Griffith. *Ammonite*. Del Rey, 2006 (1992), p. 107.

[13] The 1990s, when *Ammonite* was written, was of course the decade of cloning, with Dolly the sheep and the excited and horrified reactions that followed. However, parthenogenesis is an array of biologically distinct processes (even though the result of these can be called clones or half-clones) and, importantly in this context, the two phenomena also carry different cultural meanings. While examination of how these meanings constitute each other would be rewarding, such an analysis is beyond the scope of this chapter.

[14] Griffith, *Ammonite*, p. 107.

[15] Griffith, *Ammonite*, p. 125.

[16] Griffith, *Ammonite*, p. 65.

[17] Griffith, *Ammonite*, p. 248.

[18] Griffith, *Ammonite*, p. 249.

[19] Griffith, *Ammonite*, p. 248.

[20] Griffith, *Ammonite*, p. 118.

[21] Griffith, *Ammonite*, p. 227.

[22] Griffith, *Ammonite*, p. 244.

[23] Griffith, *Ammonite*, p. 125.

[24] Griffith, *Ammonite*, p. 201.

[25] Griffith, *Ammonite*, p. 200.

[26] Griffith, *Ammonite*, p. 201.

[27] Griffith, *Ammonite*, p. 240.

[28] Griffith, *Ammonite*, p. 198.

[29] Griffith, *Ammonite*, p. 179.

[30] Griffith, *Ammonite*, p. 232.

[31] Griffith, *Ammonite*, p. 232.

[32] Stacy Alaimo. *Bodily Natures: Science, Environment, and the Material Self.* Bloomington: Indiana University Press, 2010, p. 2.

[33] Griffith, *Ammonite*, p. 240.

[34] Griffith, *Ammonite*, p. 370.

[35] Griffith, *Ammonite*, p. 361.

[36] Griffith, *Ammonite*, p. 54.

[37] Griffith, *Ammonite*, p. 53.

[38] Pearson, "Toward a Queer Genealogy of Science Fiction." p. 73.

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Jani Ylönen

Negotiations about Reproduction by Domestic Tables – Space, Gender and Genetic Technology in Ian McDonald's *River of Gods* and Ken MacLeod's *Intrusion*

When thinking about science fiction, 'space' often invokes the image of the dark areas between star systems that often form the deadly yet neutral backdrop to the actions that happen within starships and on the surfaces of planets. However, following a general geographical turn it could be argued that this perception of neutrality has been renegotiated and that even the darkness between stars can be seen to be "charged with meaning through discourses and practices".[1] Science fiction has contributed greatly to ideas about outer space by creating images of a location that is outside most people's experience. However, it has also used spaces that are part of everyday human experience as its locations, such as business offices and homes, which are connected to much older and varied discourses.[2] Nevertheless, especially when discussing developing technologies, science fiction can combine and expose connections between discourses of technology and space in a way that highlights undercurrents that philosophical or political discussions might not. For example, in Ken MacLeod's *Intrusion*[3] and Ian McDonald's *River of Gods*[4], questions about genetic reproduction are discussed in the context of domestic space, thereby con-

necting them to concepts of public/private, gender and agency[5] and highlighting the interlinks between issues of technology and control.

MacLeod's and McDonald's science fiction novels situate discussions about prenatal genetic modification around the space of domestic tables. However, while the settings have these clear similarities, some of the variables concerning gender, class and technological regulations are different. In *Intrusion*, the kitchen table is a site at which the government seeks to enforce its regulations on a pregnant mother, thus raising questions of agency, the body and biopower. In *River of Gods*, the dining table of a middle-class family serves as a setting for a patriarchal figure's attempt to hold onto his fixed ideas of identity and control by opposing his wife's wishes for a modified offspring. The two scenes therefore discuss what Jurgen Habermas[6] introduces as two possible paths for the regulation of genetic reproductive technology, or normative regulation, where the responsibility falls on institutions and individual choice, and where individuals or parents make decisions without institutional supervision. Through these scenes these novels offer spaces for assessing the ethical implications, with fictional settings acting as "moral laboratories".[7] The two scenes also emphasise – both through the setting and the dialogues between the participants – ideas about the distinction, or lack of it, between public and private, which can be seen as an integral part of the two regulations mentioned above. Through the novels I analyse how the ideas of control concerning technology are connected and intertwined with embodiment and gender in a space – the home – that is wrought with their discourses. Therefore, in this chapter I demonstrate how the settings reveal the ways in which discourses of space and identity interact with discussions about reproductive technology.

Recent developments in the field have meant that reproductive genetic technology has become significantly more visible in the media.[8] However, as Esa Väliverronen[9] has stated, gene technology only becomes interesting when it is part of everyday life. While there is an apparent consensus among several new publications that the issue is now much more topical, the technology is still far removed from the lives of average households. Väliverronen[10] claims that fictional stories can serve as tools for understanding abstract phenomena, and I argue that the two mentioned novels are appropriate instruments for understanding how gene technology could affect homes in the future. I assert that not only do they discuss issues that the media has only recently shown interest in, but that they also connect these questions to where the effects of the discussion and decisions are ulti-

mately felt, namely in the domestic spaces and families that inhabit them. While the settings are similar enough to be effectively discussed together, they also offer contrasting contexts, such as different gender lines or modes of regulation that correspond with those discussed by Habermas[11]. A close reading of these novels can be used to address important factors that are often overlooked in the public discussion about reproductive genetic technology, such as their connections to certain cultural dichotomies and social constructions.

In this chapter I study how domestic space, and especially the categories of public and private, connects with questions of identity and genetic reproductive technology. I first of all analyse how government regulations and individual choice are connected to questions of a mother's agency and embodiment in *Intrusion*. Indeed, as I will demonstrate, matters concerning the body and space are closely connected with technology and gender in both novels. I then examine how similar questions are linked to middle-class patriarchal identity in *River of Gods*. Finally, I conclude with a discussion about both novels and their overall implications for discussion on reproductive technology and domestic space.

Connections between Space, Gender, and Science Fiction

In the West, public and private are often seen as a dichotomous pair. The former is associated with the realm that is scrutinised by others and includes politics and community, whereas the latter is connected to home and the domestic space. Feminist theory has highlighted how the public has been associated with masculinity and the private with femininity, with the whole dichotomy being connected to questions of power.[12] The public is also connected to a more rapid conception of time and societal change, while the home relates to a "slower, more organic sense of time" and is regarded as a bastion of traditional values.[13] Due to this association, the public space has been seen as the major site for identity politics and the construction of individual identities. However, as Andrew Gorman-Murray and Robyn Dowling[14] have pointed out, home or domestic space is where matters of identity are constantly negotiated. For example, domestic space is where questions of gender, class and sexuality are constantly processed. The domestic setting is thus a site where discourses that are often associated with the public realm intersect and as such is important for "cultural formations and transformations".[15] In other words, it is

a site for identity politics and an arena for social change.

Iris Marion Young[16] suggests that home is also "an extension of the person's body", where "the basic activities of life" are performed. In similar manner, Robyn Longhurst[17] paraphrases Linda McDowell to indicate that a body not only "exists in places", but that bodies "are places" in themselves. These ideas of the body are also connected to the concept of embodiment, where "collective behaviors and beliefs [...] are rendered individual and 'lived' at the level of body".[18] Young and Longhurst are also examples of the attention that the body has received in human geography in recent decades. Inarguably, the body as a concept has received significant attention not only in human geography, but also in cultural theory, the social sciences, literary scholarship and feminist studies[19]. While the Western philosophical tradition has presented the body as a static part of humanity and as a host to the ever-developing mind, in contemporary scholarship it is seen as a major site for the formation of identity that has been presented in various ways according to different cultural and societal factors.[20] Indeed, the body has been examined in various ways as a political site. For example, Michel Foucault[21] famously examined how the body has been envisioned as an object of power that has been regulated by policies of social and medical origin.

According to Patricia Melzer[22], feminist theory and science fiction share an interest in the body and its relation to what Foucault refers to as biopower: "scientific, discourse and technology's systems, institutions, and representations". This has been especially visible in feminist technoscience and cyborg feminism, which are often connected to Donna Haraway. Haraway has criticised the patriarchal origins of science and technology and seen their potential to deconstruct these very structures as well as the potential of science fiction in the related discussion. Feminist critique of science has emphasised how scientific knowledge and technology have been used to enforce patriarchal authority and power.[23] Similarly, early feminist critiques of science fiction argued that it historically reflected patriarchal values and masculine concerns.[24] However, more recent critics have pointed out how contemporary science fiction constantly explores gender and its relationship to technology.[25][26] While science fiction has served as what Istvan Csicsery-Ronay Jr.[27] calls "a propaganda arm of technocratic ideology", it has also critically engaged with technology and the cultures surrounding it. Due to its speculative nature, it even has a special ability to negotiate questions relating to emerging technologies. As Csicsery-Ronay Jr. observes,

> [Science fiction w]riters take known, plausible, or just widely entertained scientific ideas and extend them speculatively into the unknown, exceeding their contexts, revealing their fantastic dimensions, and undermining obliquely their claims to universal applicability.[28]

Gene technology is especially interesting for science fiction, as the two novels by MacLeod and McDonald demonstrate. Several scholars agree that genetic technology has an unforeseen potential to change the very concept of humanity.[29] In what follows, I demonstrate how the two analysed novels not only extend the ideas of genetic reproductive technology into the unknown, but also connect them to familiar discourses.

A Kitchen Table and a Government Ultimatum

Scottish author Ken MacLeod (born in 1954) is described by Graham Sleight[30] as having a particular "interest in how societies structure themselves" and how individuals form groups and societies. In *Intrusion*, his sixtieth novel, technology superficially appears to be an unproblematic agent of progress for the society concerned, thereby following a role that Roger Luckhurst[31] claims is common in science fiction. To the general public of the novel's future British technology appears to have solved many problems in the world, for example by genetically enhancing trees so that they clean the air and medical achievements that have cured many diseases. Indeed, even Hope and Hugh, the couple at the centre of activity in the novel, have faith in society at the beginning of the narrative. However, the medical enhancements, or rather how society seeks to control them, start to undermine the idea of progress and highlight its problems.

In many ways, the elements of dystopia are already in place in the lives of Hope and Hugh. For example, women's lives are limited, and these limitations are justified by the benefits that they will apparently have for women and children alike. According to Hope, the changes have been progressively unveiled:

> [T]hey'd come to stand in her mind for a larger failing on her mother's cohort, who'd somehow let their guard down for a moment of post-feminist frivolity and found a whole shadow sexist establishment just waiting to pounce [...] and before you knew it, the tax advantages of having one parent home were so significant it was more than it was worth not to do it unless you were something like a lawyer – like, for instance, all those lawyers who'd dreamed up all the ostensibly child-protective legislation

> that had put so many workplaces outside the home off limits for women of childbearing age whether they ever intended to have children or not, which meant that nine times out of ten the parent at home was the mother.[32]

In the novel, society has created limitations for women through what are seemingly advantageous and good intentions. These limitations have gradually restored a patriarchal structure that is often associated with the 1950s. The society in question has not walked the path suggested by Adrienne Rich[33], where choices about reproduction have led to a deconstruction of social gender norms. "The child-protective legislation" is a classic way of justifying limitations that directly affect women, although at the same time uses children to shield the legislation from accusations of sexism. In this case, society has used children as an excuse to reinforce the gender barrier between public and private. As Burman and Stacey[34] claim with reference to research by Yuval-Davis, Anthias and Ueno, the cultural and biological aspects of reproduction have been used to "render [them] targets of social policy". Furthermore, in connection to space, due to their ability to reproduce, in other words, their embodiment, women have been locked inside what Iris Marion Young[35] refers to as "private spheres" that confine "some persons to a certain realm of activity and excludes them from others". The society has bypassed other possible options to restricting where people can go, such as dealing with the root cause of the danger. Restricting women from certain spaces, especially in a society that is technologically advanced, can be seen as a political choice that is comparable to those made in recent times outside fiction.[36]

Although there are several examples in the novel of how technology and legislation are used to control women, in this chapter I concentrate on one specific scene and its location. As this scene depicts, and as narrated from Hope's point of view and set in the family kitchen, it is not enough for the government to limit the public spaces in which women can work. Its legislation also invades traditionally private spaces. The scene is set when Fiona, a social worker/visiting nurse arrives and sits down to talk in the couple's kitchen:

> Hope stared across the table at Fiona: friendly, businesslike, almost motherly. In the grey light from the window and the white light from the led fixture, she sat in a halo in which she looked serene, concerned, informed, everything a visiting nurse should be.[37]

It is noticeable how the setting affects Hope's perception of Fiona. Her composure is highlighted by the light, the mixed nature of which almost foreshadows her as an outside force entering this private space to discuss the faith of Hope's unborn child with her.

Despite her benign presentation, Fiona's visit is a continuation of the process that started with "the failure of Hope's mother's cohort". Whereas earlier changes had limited women like Hope to working in the privacy of their homes, this time the lines between what is controlled are moved further into the private sphere. Indeed, as Carole Pateman[38] states, welfare policies have extended their reach from public to private sector to support a patriarchal family model since the early 20th century. As a guardian of welfare policies, Fiona steps into the couple's kitchen, which has historically been seen as the woman's zone in the house[39], and makes it known that this too is already partly her jurisdiction: "[Hope] watched Fiona slip a computer out of her tunic pocket [...] and poked at it for a few seconds, then sat back, no doubt relieved that no molecules of dangerous substances had been detected in the air."[40] Fiona already has the right to monitor Hope's and Hugh's household so that they do not do anything that might be harmful to the future child, such as smoking. Indeed, close to her wedding ring, Hope wears a ring that reports any violations to the health centre, such as drinking whisky during pregnancy.[41] However, it quickly becomes apparent that Fiona's visit is not just an ordinary house call to check toxic levels. Instead, she has a clear agenda, which is to ask for Hope's opinion as to whether she has decided to follow the government's recommendations in the case of her second child.

The recommendation is a pill called 'the Fix', which is

> [...] a complex of gene-correcting machinery made up into a single tablet which when swallowed during pregnancy fixes errors in the baby's genome, and confers immunity to almost all childhood ailments.[42]

'The Fix' is designed to ward off the various conditions that a child may experience to 'correct' the mother's DNA. Either because of this, or the fact that it indiscriminately fixes all the strands in the DNA that are perceived as errors, whether proven dangerous or not, Hope does not want to swallow the pill. However, a precedent that is in danger of giving the government leverage to force people into taking the treatment has just been set. In fact, this is the warning or threat that Fiona brings. Hope should take 'the Fix' now instead of being forced to do it later:

> 'It's the principle', Fiona said. '[...] You can't have people dodging an obligation just because they don't feel like it.' [...] 'I sympathise, obviously, but all I can say is, I hope you're not one of those picked to be made an example of.'[43]

Fiona's choice of words clearly indicates her perception of the matter: Hope's personal choice to not take 'the Fix' means "dodging an obligation" – avoiding a compulsory and universally beneficial treatment without any understandable reason. Despite her appearance of niceness and apparent sympathy, Fiona works for a governmental agency that wants to determine the path of Hope and Hugh's future child and take away the possibility for Hope to govern her own body. When Fiona later in the scene puts a 'Fix' tablet on the couple's table in front of Hope, she not only introduces this technology to their domestic space, but also wants Hope to swallow it.

Of course, Fiona warns Hope of the possibility that her jurisdiction will be much deeper than the inside of her house, i.e. inside her. 'The Fix' and the government's possibility to force it on Hope means that it is ready to invade her privacy and that of her future child's body. Turning around yet connecting to the idea of "home as an extension of the body"[44], the control that Fiona represents and tries to enforce extends from the domestic space to Hope's embodiment. Hope's pregnant body, with a child in the womb, could be considered the most concrete extension of the idea of the body as a space. After all, the womb is even regarded by some as a vessel for new life, which is perhaps an appropriate metaphor for those developing artificial wombs that remove much of the connection between the mother and the foetus. While Rosi Braidotti[45] talks about how the work carried out by scientists in laboratories to develop reproductive technologies, such as artificial insemination, can be used to control women, here similar technology is brought from the labs to private dwellings with the same intent. Producing the best possible citizens has been seen in Western philosophy as the ultimate goal for society and for parents.[46] Here, society is willing to take control of more of the process. In order to provide ideal, healthy citizens for its society, representatives of the government are willing to take the agency for their own bodies away from adult women. By moving this into the private sphere, the government dismantles the boundaries between public and private by extending its control over women further into the latter. It could be argued that this is similar to the historical idea of the kitchen as women's domain in the property that belongs to their husbands.

This threat also makes Hope seriously doubt the system and Fiona as part of it: "Fiona wasn't a villain. Fiona was just a person who represented an impersonal system closing in and grinding them down. That was how Hope saw her."[47] As this vision is quite distinct from the earlier benign one, Hope becomes disenchanted with Fiona, but more significantly with the society she represents and, consequently, is ready later in the novel to rebel against society and escape with her family. Iris Marion Young[48] refers to privacy as the "autonomy and control" that a person has over information about themselves and their private space and embodiment. In the novel, Hope not only loses her privacy but society also makes a very strong effort to limit her embodied agency and her ability to reproduce, therefore tying her womanhood to motherhood and using it to oppress her.[49] The concepts of private and privacy culminate in the body, Hope's body, which is the ultimate object of the (bio)power the government wishes to wield. In Intrusion, the society can be defined as a woman's dystopia, as indicated by Sarah Lefanu[50]: Hope's femaleness is used against her, and she is in danger of being "reduced from subjecthood to function".

Dining Table and a Dream of a Perfect Child

Award-winning British author Ian McDonald (born in 1960) has set much of his work outside the First World paradigm and has often explored Britain's demise as a world power in connection with rising technologies.[51] *River of Gods* is set in a largely different world from that of MacLeod, in India in the 2040s, where traditional nation states have mostly been replaced or removed from power by private corporations in ways that are usual for post-1980s science fiction.[52] As is often the case, the choice of using technology is left to the customer. Instead of a "socialist dystopia", the world is more like a typical capitalist dystopia, or is on the verge of becoming one. *River of Gods* also has a central scene set around a table where choices about gene technology are discussed. While this table is a dining table and represents a more middle-class environment, the distinction between public and private and their connection to gender is also discussed around it. However, this time the person who is 'under threat' is not the future mother but the possible future father, who arrives home from work to find his wife and mother-in-law emphasising the old association between the masculine and the public and the feminine and the private.[53] As the patriarchal breadwinner, Mr Nandha feels that the home

should be his area of control. As Carole Pateman[54] argues, there has always been a legitimate space for men in public and at the head of the table. As such, the novel continues a tradition of middle-class families discussing topical societal concerns at the dinner table whether historically or in novels[55], but also questions matters of identity in a domestic setting.[56]

Parvati, Mr Nandha's wife, and Mrs Saburdhai, her mother, disrupt these dreams of accord and induce a prideful (sic) reaction from him:

> A fine government roof, earned by my care and dedication to my profession. A roof under which I expect the peace and calm and domestic order that profession demands. [...] Things you could not even begin to understand, that threaten our every belief about our world, I confront them on a daily basis. And if my horrible, tuneless Western music, if my bland white firengi diet, my cook and my sweeper all give me that peace and calm to face another day in work, is that unreasonable.[57]

To him, his home, and especially the dinner table at which he sits when coming home from work, represents a space where he can leave his public role behind and concentrate on his private indulgences. The description also highlights the family's home with its human servants as a space that is almost devoid of technology, in contrast to Mr Nandha's work where the most recent technology is ever present. To Mr Nandha, his job represents the chaos of the public world against which he expects his home and dinner table to present a countering private world of "peace and calm", which is mentioned twice in the above passage. However, the peace and calm are not produced by his wife or even the site, but by the commodities he lists, from the roof to what is on the dinner plate and to who made it, all of which he owns. His idea of home is connected to what Iris Marion Young[58] refers to as a "commodified concept of home" that "ties identity to a withdrawal from the public world and to the amount and status of one's belongings". But in this particular moment the fortress of tranquillity that he feels he has earned is broken from the inside by the people he expects to be part of his private life. What is more, they confront him with a discussion about the kind of technology that he fights against in his public life.

The matter that Parvati and Mrs Saburdhai confront Mr Nandha with is having a child, and not just any child but a "true heir".[59] They want to procure what is considered in their society to be the highest status symbol, a Brahmin child:

> A genetically engineered child. A human child that lives twice as long but ages half as fast. A human being that can never get cancer, that can never get Alzheimer's, that can never get arthritis or any number of the degenerative ills that will come to us, Parvati.[60]

In the novel, the Brahmin represents the most advanced technology in the field of reproduction. Like 'the Fix' in the world of *Intrusion*, this prenatal modification offers the child protection against ailments. However, this time the matter is not just about avoiding the negative but about actually enhancing the child. As such, and as explained by Matti Häyry[61], the technologies of the two novels represent two methods of modifying children genetically in the discussion about bioethics: correcting harmful defects or enhancing the child. In both novels, the effects on the children represent something that not only affects those who are modified, but also their progeny. However, in *River of Gods* the degree of modification is different, as is the inherited effect discussed by an expert in biotechnology:

> [...] we have reached a stage where wealth can change human evolution. [...] Parents have always wanted to give their children advantages, now they can hand them down through future generations. And what parent would not want that for their children?[62]

In the capitalistic world of the novel, the technologies are available to those who can afford them, and a Brahmin is regarded as a luxury item that is only available to the wealthiest.[63] This connection between social class and technology is marked by the name of the enhanced children, thus referring to the old and the highest spiritual caste in India, previously reserved for the priestly class and the holders of the highest ritual status and economic and political power.[64] The Brahmin, with their long life span and the ability to transfer precious genetic property, uphold the 'sacred law' of privilege and command ritual and secular status.

Although Mr Nandha's speech demonstrates his understanding of commodities and status, he opposes the idea of a modified child, not because of the 'class problem but due to the price. He could just about afford to have the child, but has other reasons for opposing the action that only seems reasonable to his wife and mother-in-law, as revealed in the passionate reaction to the topic:

> We will take our seed to the doctors and they will open it up and take it apart and change it so that it is no longer ours and then fuse it and put that inside you, Parvati; fill you full of hormones and fertility drugs and push it into your womb until it takes and you swell up with it, this stranger within.[65]

His horror at the suggestion is triggered by the technological aspects. His opposition is primarily based on his perception of the process as unnatural, as well as other gender-rooted social constructions. Mr Nandha is a member of the patriarchy, which according to Adrienne Rich[66] is based on the continuation of the genetic material and control of this process. Therefore, the creation of a Brahmin child, while also representing the inheritance of privilege, represents a loss of that control. In effect he would only be the distributor of genes. The control would instead be given to the doctors who carry out the changes that make the Brahmin such valued heirs. It is not Mr Nandha's genetic imprint that is important but how it is changed. Merete Lie[67] discusses how "the separation of sexuality and procreation" caused by the contraceptive pill "disturbed the naturalness of the nuclear family's role [...] in the process of reproduction". In similar fashion, Mr Nandha sees an analogous threat to his status in his family unit from the Brahmin technology. In his appeal to Parvati, he first uses the pronouns 'we' and 'our', but after the doctors take charge of the process he only says 'you', referring to Parvati. With his choice of pronouns, Mr Nandha expresses how he feels about the process that will remove him from the reproductive narrative and deny his agency in the matter. While many feminist scholars[68] have discussed how science has taken on the role of a father through its increasing participation in reproduction, this danger is now a reality for Mr Nandha, who is to become the father replaced by science. His words almost echo the fears expressed by feminist scholars, who argued that reproductive technology, seen as inherently patriarchal, would be used to assert dominance over women.[69] However, the technology is now eroding his patriarchal status. While he attempts to describe Parvati in terms of an object, it is still clear that she will be more of an agent in the process of securing a Brahmin child. If nothing else, she will carry the child when the doctors have carried out their task. Thus, as Merete Lie[70] discusses, the woman becomes a participant rather than a creator in this technologically influenced reproductive process, which is more than the role reserved for Mr Nandha.

How Mr Nandha connects the Brahmin with his loss of domestic con-

trol is also reflected when he says: "[...] the Brahmins, they are the destruction of all of us. We are redundant. Dead ends. I strive against inhuman monsters, I will not invite one into my wife's *womb*".[71] Here he uses pronouns to again connect the question of a child not only to himself and Parvati, but to the whole of (hu)mankind. However, his own role as a "dead end" is emphasised by his verbal seizure of agency in the following sentence. He not only paints himself as a hero fighting the enemies of the current version of humanity, but also claims his right to control his wife's reproductive organs. Erica Burman[72] discusses how in the connection between women and children both have been marked as the property of their husbands/fathers and infantilised. Mr Nandha's passionate, almost preacher-like, rhetoric infantilises Parvati as someone who does not understand the full implications of her request. The words also connect to his job and remind him of his created role as a breadwinner, which as the rhetoric implies, gives him ownership not only of his house, but also the wife living in it with him. The connection between discourses of domestic space, embodiment and femininity can also be read from his choice of words when he refers to impregnating Parvati using the verb 'to invite', at the same time as emphasising himself as the person who makes the decisions and the one left as a mere bystander in the process. Iris Marion Young[73] paraphrases how Luce Irigaray "writes about the association of house and home with a male longing for fixed identity in a timeless tone". Mr Nandha has certainly built his identity around the concept of home and uses it to shield himself from the cruelties of his work. While the novel gives some support to his technophobia, the scene set around the dining table highlights what Margrit Shildrick[74] might call "nostalgia for purity", rather than any ethical concern behind his actions and words, especially concerning the Brahmin.

Parvati's topic breaches Mr Nandha's control over what is private and what is public, as well as the separation of these two categories. He also perceives it as a challenge to his masculinity and the traits he considers to be part of it. As Andrea Kaston Tange[75] argues about Victorian middle-class homes, the dining room is a site for evaluating men's masculinity based on their behaviour. Although the setting is not a Victorian home, Mr Nandha's defensive and aggressive reaction certainly implies that he feels unnerved by the discussion that is taking place under 'his roof'. While Parvati may not connect his behaviour to his masculinity, the scene is portrayed in the novel as having a part to play in her later decision to abandon Mr Nandha for another man, thus breaking down their family unit and leaving the breadwinner without anyone to support – neither a wife nor a potential child.

Novels at an Ethical Intersection between Gender, Technology, and Space

The novels considered here offer two quite different societies that consequently discuss matters of prenatal genetic modification from two different points of view. In *Intrusion*, government interests and individual choice collide, revealing questions of biopower and women's agency over their embodiment. In *River of Gods*, on the other hand, women's agency over their own bodies is connected to patriarchal control and the construction of fixed male identity. Whilst different in many ways, the scenarios also have clear similarities.

As indicated, the scenarios represent two distinct views of the control of genetic technology, as discussed by Jürgen Habermas[76] and others. However, in both cases, the choice, whether regulated by the government or left to the individual or family unit, disrupts the structures of society. On the one hand, in Hope's and Hugh's case, the weight of the matter first makes them disillusioned with their status as citizens of their society, and then leads them to rebel and act against the best interests of that society. On the other hand, in Mr Nandha's and Parvati's case, it is the family unit that is broken by the choice and their different opinions and approaches to it. While the scenes explored in this chapter raise interesting questions of citizenship and what constitutes a family, they are also overshadowed by questions of gender and space.

Even though the societies in the novels offer different views of the dichotomy of public/private, both novels discuss the effects of reproductive technology and related ethical questions on this binary. Hope, Hugh and Mr Nandha see home, to quote Gorman-Murray and Dowling[77], "as a safe haven". However, in both cases, technology disturbs the peace of these havens. The public discussion about prenatal modification invades private facilities and dissolves the boundaries. Both novels highlight the fact that whether the choice is seen as a private matter decided by parental units, or as a public affair with institutional control, the very nature of the technology disrupts the dichotomies and borders connected with and concerning the matter. The choice made by the family unit affects the society as a whole, while society's involvement invades the autonomy of its members in ways that are intersected by questions of class and gender. The effects are almost the opposite to those in *Intrusion*, where the government could be seen to represent a patriarchal force that seeks to control women and reduce them to their reproductive function. In *River of Gods*, it is a woman's wish to

explore her reproductive ability in combination with prenatal technology that is seen as a threat to the identity and control of a patriarchal figure. The two novels demonstrate science fiction's potential to discuss the relationship between gender and technology and its capacity to dissolve cultural boundaries and norms, such as ideas connected to space.

The locations serve to establish the interconnections between the discourses, practices of space and genetic reproductive technology. The domestic setting contains various non-neutral discourses that are connected to, for example, class and gender. The various scenes remind us how technology, even one that is under development, and the discussions surrounding it, will always connect to previous discussions about identities, bodies, boundaries or previous technologies. In the scenes analysed here, clear connections are visible between discussions about gene technology and those concerning earlier reproductive technologies, such as artificial insemination and the contraceptive pill.[78] When science introduces new technologies, they and the discussions concerning them always exist in a continuum connected to social values and constructions. Science may appear as "the new father", to quote Merete Lie[79], but how fatherhood is defined and what rights fathers have are matters of social agreement. Consequently, it is hardly surprising that in *Intrusion* this 'father' represents the patriarchal system and in *River of Gods* Mr Nandha sees the more active role of women in it as a threat to himself and to the whole of mankind (sic). However, beyond the concerns of patriarchy, developing technologies require a reassessment of what motherhood and fatherhood are and what childhood means in the 21st century.

Gene technology is at the same time connected to essentialist ideals concerning humanity and the research that disrupts them. Consider, for example, one of the most significant and visible projects in gene research in human history, the Human Genome Project. This started as a project essentially to map human nature, or the essence of it, but has resulted in discoveries that Richard Twine[80] claims have led to, "prior assumptions about human nature appear increasingly fragile in the face of genomic visions of human 'enhancement'". This effect, which is shown in the novels as gene technology, is linked directly to the body, past the usual fields of discussion examining genetically modified tomatoes or human cells that are examined without any direct connection to the entities they are a part of. The body, the political space of biopower, is ultimately at the centre of the discussion about gene technology, the most private part in the domestic setting that is invaded by technology and, in the case of *Intrusion*, the regulations that

seek to govern it. While gene technology might be a new invader, the discussion in the novels follows much older patterns that are recognisable from other discussions about women's rights for self-determination. One such issue is abortion, which like reproductive gene technology has had considerable media coverage in recent years.[81] There are clear similarities between the government in Intrusion that wants to seemingly protect the lives of its citizens by restricting women's rights to the self-government of their own bodies and the outrage that Mr Nandha expresses over the threat to his patriarchal identity from women who want to choose how they reproduce. This is also reflected in the discussion that is currently taking place in the United States. Issues of reproduction in both cases quickly become questions of gender and power.

While gene technology presents unforeseen dilemmas to humankind[82], many of its questions are connected to historical constructions of motherhood, female embodiment, reproduction and power. The novels also highlight a discussion that is often neglected in the public sphere, despite being the central area for the final confrontations of these matters, i.e. the home. At an allegorical level, the domestic settings that seem bereft of the technological advances that have changed the societies around them serve as metaphors for the directions that technological discussions take. Of course, as the matter becomes ever more urgent and part of everyday life, and as Esa Väliverronen[83] implies, gene technology will become further integrated into domestic discussions. While traditionally, as Joanne Hollows[84] explains, home has been associated with "slower, more organic sense of time", the novels certainly imply another possibility. In them, the short domestic scenes have powerful consequences in terms of radical change, not only within the families inhabiting the spaces but also in the societies around them. It could therefore be argued that this will also probably happen when gene technology one day emerges from the laboratories and legal councils and affects everyday life, especially if the implications are not carefully considered beforehand.

To conclude, these two science fiction novels discuss the moral and ethical implications of gene technology; a technology that despite being increasingly discussed in the mainstream media is still removed from everyday life, as are the ethical choices connected to it. As such, *Intrusion* and *River of Gods* operate as what Jèmeljan Hakemulder[85] refers to as 'moral laboratories': "in which plausible implications of human conduct and ideas can be studied in a relatively controlled way". Hakemulder[86] argues that, as many

scholars have also claimed, literature "defamiliarizes our perception of the world", therefore enabling a re-examination of moral issues and norms. While Hakemulder[87] suggests that 'literary fiction' has a more powerful effect than 'popular fiction' (sic)[88], I claim that science fiction, which has even been defined in terms of its use of estrangement[89], is especially adept at this, particularly when discussing questions related to technology. Furthermore, Hakemulder[90] discusses how this re-examination is partially caused by empathic reactions to similarities between the literary characters' experiences and the readers' memories. It can be argued that these two novels operate on two levels: first by alienating the home environment with the addition of a technological discussion and secondly creating an empathic resonance to the technological discussion by connecting it to the characters and their domestic experiences, thus enhancing the re-examination of norms and ethical issues. As such, the two domestic scenes act as moral laboratories in which we can examine our relationship to gender, gene technology and domestic space.

[1] J. Kneale and R. Kitchin. "Lost in Space", In J. Kneale and R. Kitchin (eds), *Lost in Space. Geographies of Science Fiction*. London: Bloomsbury Publishing, 2005, p. 2.

[2] This, of course, connects science fiction to non-speculative fiction. For example, 19th century novels such as those by Jane Austen had strong distinction between public and private. Often in these novels the public was seen as something far away from the domestic main settings of the novels. Meanwhile, in classic science fiction the private or domestic was situated far from the main story line. A few examples are Ray Bradbury's *The Martian Chronicles* (1951), where the Martians are imagined to have similar domestic spaces as American middle-class in the 1950s, Clifford Simak's City (1952), where domestic space in the shape of home On Earth of many generations is left behind as people expand to live on other planets, or Frederik Pohl's *Man Plus* (1976), where a male astronaut is willing to subject himself to drastic modifications and take a mission on Mars to support his wife still living far on Earth in a middle-class suburbia.

[3] K. MacLeod. *Intrusion*. London: Orbit, 2012.

[4] I. McDonald. *River of Gods*. London: Gollanz, 2004.

[5] Agency as a term has been criticised for its exclusivity to subject-centred human individuals. See, for example, J. Bennett, *Vibrant Matter. A Political Ecology of Things*, Durham, Duke University press, 2010, pp. 9, 30. While perhaps actant would be more suitable term, I use agency and agent with their full human-centred package because this is appropriate for the discussion about connecting new technologies to older discourses.

[6] J. Habermas. *The Future of Human Nature*. Cambridge: Polity Press, 2003, p. 12.

[7] J. Hakemulder. *The Moral Laboratory. Experiments Examining the Effects of Reading Literature on Social Perception and Moral Self-Concept*. Amsterdam: John Benjamins Publishing Company, 2000, p. 150.

[8] See, for example, "The Era of Human Gene-editing May Have Begun. Why that Is Worrying", *The Economist*, 29 November 2018., A. Wallius, "Missä kulkee tautien parantamisen ja ulkonäön parantelun raja? Asiantuntija varoittaa vauvojen geenimuokkauksen kaltevasta pinnasta", *Yle Uutiset*, 22 July 2018., and Zimmer, C., "Genetically Modified People Are Walking Among Us", T*he New York Times*, 1 December 2018. (Accessed 3 December 2018.)

[9] E. Väliverronen. *Geenipuheen lupaus. Biotekniikan tarinat mediassa*. Helsinki: Helsingin yliopisto, 2007, p. 12.

[10] Väliverronen. *Geenipuheen lupaus*, pp. 30, 34.

[11] Habermas. *The Future of Human Nature*, p. 12.

[12] J. Hollows. *Domestic Cultures*. Maidenhead: Open University Press, 2008, pp. 2–3; J. Landes, "Introduction", In J. Landes (ed), *Feminism, the Public and the Private*. Oxford: Oxford University Press, 1998, p. 1.

[13] Hollows. *Domestic Cultures*, pp. 3–6.

[14] A. Gorman-Murray and R. Dowling. "Home", *M/C Journal*, vol. 10, no. 4, 2007, p. 2.

[15] Hollows. *Domestic Cultures*, p. 3.

[16] I. Young. *On Female Body Experience. Throwing Like a Girl and Other Essays*. Oxford: Oxford University Press, 2005, p. 152.

[17] R. Longhurst. "Situating bodies", In L. Nelson, and J. Seager (eds), in *A Companion to Feminist Geography*. Oxford: Blackwell Publishing, 2005, p. 337.

[18] C. Noland, Agency and Embodiment. *Performing Gestures/Producing Cultures*. London: Harvard University Press, 2009, p. 9.

[19] See, for example, Longhurst, "Situating bodies", J. Morrison. *Contemporary Fiction*. London: Routledge, 2003, H. Thomas. The Body and Everyday Life. London: Routledge, 2013.

[20] Thomas. The Body and Everyday Life, p. 1, E. Grosz. *Volatile Bodies: Toward a Corporeal Feminism*. Indianapolis: Indiana University Press, 1994, p. x.

[21] M. Foucault. *Discipline and Punish. The Birth of the Prison, trans*. A. Sheridan. London: Penguin Books, 1991, pp. 136–8.

[22] P. Melzer. *Alien Constructions. Science Fiction and Feminist Thought*. Austin: University of Texas Press, 2006, p. 20.

[23] Melzer. *Alien Constructions*, pp. 19–21.

[24] See, for example, R. Roberts. *A New Species. Gender and Science Fiction*. Chicago: University of Illinois Press, 1993, p.1–12, S. Lefanu. *In the Chinks of the World Machine. Feminism & Science Fiction*. London: The Women's Press, 1989.

[25] See, for example, Melzer. *Alien Constructions*, pp. 19–21, B. Attebery, *Decoding Gender in Science Fiction*. London: Routledge, 2002.

[26] Creation of life has been a theme in science fiction at least since Mary Shelley's *Frankenstein, or the Modern Prometheus* (1818) that many science fiction scholars refer to as the first science fiction novel (see, for example, B. Aldiss, and D. Wingrove, *The Trillion Year Spree. The History of Science Fiction*. London, Victor Gollanz ltd, 1987, and A. Roberts, *Science Fiction*, London, Gollanz, 2006). Similarly, as R. Roberts, in *A New Species. Gender and Science Fiction*, Chicago, University of Illinois Press, 1993, p.1–12 notes, motherhood has been of interest for science fiction for a long time, although not as directly as Robin Roberts notes. Reproduction has been visible part of science fiction novels, such as Octavia Butler's *Xenogenesis trilogy* (1984–1989), and in the media, e.g. *The Handmaid's Tale* (2017–) based on Margaret Atwood's novel of the same title (1985).

[27] I. Csicsery-Ronay. *The Seven Beauties of Science Fiction*. Middle-town: Wesleyan University Press, 2008, p. 112.

[28] Csicsery-Ronay. *The Seven Beauties of Science Fiction*, p. 112.

[29] See, for instance, Habermas, *The Future of Human Nature*, p. 13, M. Shildrick, "Beyond the Body of Bioethics. Challenging the Conventions in the Ethics of the Body", in M. Shildrick and R. Mykitiuk (eds), *Ethics of the Body: Postconventional Challenges*, Cambridge, US: MIT Press, 2005, p. 2.

[30] G. Sleight. "MacLeod, Ken", *The Encyclopedia of Science Fiction*, 31 August 2018. (Accessed on 23 February 2019)

[31] R. Luckhurst. *Science Fiction*. Cambridge: Polity Press, 2005, p. 5.

[32] MacLeod. *Intrusion*, p. 10.

[33] A. Rich. *Of Woman Born. Motherhood as Experience and Institution*. 10th anniversary edition, New York: Virago, 1986, pp. ix–x.

[34] E. Burman and J. Stacey. "The Child and Childhood in Feminist Theory", *Feminist Theory*, vol. 11, no. 3, 2010, p. 229.

[35] Young. *On Female Body Experience*, p. 152.

[36] See, for example, L. Bondi, who in "Gender, Class, and Urban Space. Public and Private Space in Contemporary Urban Landscape", *Urban Geography*, vol. 19, no. 2, 1998, pp. 160–185 connects discourses concerning women and public space, for example, with sexual violence.

[37] MacLeod. *Intrusion*, p. 37.

[38] C. Pateman. *The Disorder of Women*. Cambridge: Polity Press, 1989, 183.

[39] For example, A. Meah in "Reconceptualizing Power and Gendered Subjectivities in Domestic Cooking Spaces", *Progress in Human Geography*, vol. 38, no. 5, 2014, pp. 674–5 examines how especially second wave feminism regarded the kitchen as a site in which gender roles were reinforced and women oppressed. However, she also discusses how later readings and historical developments have resulted in the kitchen becoming less of a gender segregated space and an arena for re-examining boundaries.

[40] MacLeod. *Intrusion*, p 32.

[41] MacLeod. *Intrusion*, p. 8.

[42] MacLeod. *Intrusion*, p. 17.

[43] MacLeod. *Intrusion*, p. 37.

[44] Young. *On Female Body Experience*, p. 152.

[45] R. Braidotti. *Nomadic Subjects: Embodiment and Difference in Contemporary Feminist Theory*. New York: Columbia University Press, 1994, pp. 86–7.

[46] See, for example, M. Häyry. *Ihminen 2.0. Geneettisen valikoinnin ja parantelun eettiset kysymykset*. Helsinki: Gaudeamus, 2012, p. 67.

[47] MacLeod. *Intrusion*, p. 38.

[48] Young. *On Female Body Experience*, p. 152.

[49] Compare to ideas presented by, for example, S. Firestone, who in *The Dialectics of Sex. The Case for Feminist Revolution* (1978) discusses the possibility of freeing women from the oppressive biological task of giving birth (see, for example, Lefanu 1989). This, as J. Slonczewski and M. Levy in "Science Fiction and the Life Sciences", in E. James and F. Mendlesohn (eds), *The Cambridge Companion to Science Fiction*. Cambridge: Cambridge University Press, 2003 argue, directly or indirectly influenced many feminist science fiction authors to explore different ways of changing the role of women in reproduction in their fiction, especially in the late 1970s.

[50] Lefanu. *In the Chinks of the World Machine*, p. 71.

[51] R. Kaveney and J. Clute. "McDonald Ian", *Encyclopedia of Science Fiction*, 3 February 2018. (Accessed on 23 February 2019)

[52] I. Csicsery-Ronay. "Dis-Imagined Communities: Science Fiction and the Future". In V. Hollinger, and J. Gordon (eds), *Edging to the Future. Science Fiction and Contemporary Cultural Transformation*. Philadelphia: University of Pennsylvania Press, 2002, pp. 223–5.

[53] Hollows. *Domestic Cultures*, p. 3.

[54] C. Pateman. *The Disorder of Women*. Cambridge: Polity Press, 1989, p. 183.

[55] The scene is similar to ones in 19th century novels depicting family life, such as those by Jane Austen, or scenes from later television sitcoms where "breadwinners" discuss matters of private and public concern.

[56] A. Tange in *Architectural Identities. Domesticity, Literature and the Victorian Middle Classes*. Toronto: Toronto University Press, 2010, pp. 138–9 refers to John Tosh, who argued that domestic life was quintessential for the definition of Victorian middle-class masculinity and adds that the same construction is visible in literary texts from fiction, guides to young wives and architectural plans. Tange further discusses how despite many assumptions to contrary, the dining room was considered a masculine space and an arena for displaying masculinity, for example, in the form of displaying the monetary contributions of the 'breadwinner'. While *River of Gods* is not a Victorian novel and is not set in Victorian Britain, there are nevertheless interesting similarities to those settings in the scene in which Mr Nandha arrives home expecting peace and harmony.

[57] McDonald. *River of Gods*, p. 396.

[58] Young. *On Female Body Experience*, p. 131.

[59] McDonald. *River of Gods*, p. 397.

[60] McDonald, *River of Gods*, p. 397.

[61] Häyry. *Ihminen* 2.0, p. 29.

[62] McDonald. *River of Gods*, p. 284.

[63] N. Katherine Hayles in the seminal *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press, 1999 discusses how certain posthumanist, or rather transhumanist, futures may lead to increased inequality rather than technologically created equality. This has certainly been the effect of the Brahmin technology, which has intensified the possibility of making social advantages inheritable by moving them from the unstable world of money to the genes themselves.

[64] S. Kumar. "Indian Social Structure. Continuity and Dynamism", *The Oriental Anthropologist*, vol. 16, no. 1., 2016, p. 110.

[65] McDonald. *River of Gods*, p. 397.

[66] Rich. *Of Woman Born*, p. 60.

[67] M. Lie. "Science as Father? Sex and Gender in the Age of Reproductive Technologies", in R. Baccolini and T. Moylan (eds), *Dark Horizons. Science Fiction and the Dystopian Imagination*. 2003, p. 178.

[68] See, for example, Braidotti, *Nomadic Subjects,* p. 87, Lie, "Science as Father?", p. 180.

[69] See, for example, K. Toffoletti, *Cyborgs, and Barbie Dolls. Feminism, Popular Culture and the Posthuman Body*. London: I.B. Tauris, 2007. p. 22.

[70] Lie. "Science as Father?", p. 179.

[71] McDonald. *River of Gods*, p. 398. italics in the original.

[72] E. Burman. "Beyond 'Women vs. Children' or 'WomenandChildren'. Engendering Childhood and Reformulating Motherhood", in *International Journal of Children's Rights*, vol. 16, 2008, p. 182.

[73] Young. *On Female Body Experience*, p. 124.

[74] M. Shildrick, *Embodying the Monster. Encounters with the Vulnerable Self*. London: SAGE Publications, 2002, p. 128.

[75] Tange. *Architectural Identities*, p. 138.

[76] Habermas. *The Future of Human Nature*, p. 12.

[77] Gorman-Murray and R. Dowling. "Home", p. 2.

[78] When editing the text that was for the most part completed in 2019, comparisons cannot be drawn between the recent discussions about COVID-19 vaccinations. That remains to be discussed in more detail in the future.

[79] Lie. "Science as Father?", p. 180.

[80] R. Twine. "Genomic Natures Read through Posthumanisms", in *The Sociological Review*, vol. 58, no. 1, 2010, p. 175.

[81] See, for example, P. Belluck, "Trump Administration Blocks Funds for Planned Parenthood and Others Over Abortion Referrals". *The New York Times*, 22 February 2019 and J. Glenza, "US abortion rights hang by 'dangerously thin' thread, pro-choice advocates warn". *The Guardian* 8 February 2019.

[82] Habermas. *The Future of Human Nature*, p. 13; Shildrick. "Beyond the Body of Bioethics.", p. 4.

[83] Väliverronen. *Geenipuheen lupaus*, p. 12.

[84] Hollows. *Domestic Cultures*, pp. 3–6.

[85] Hakemulder. *The Moral Laboratory,* p. 150.

[86] Hakemulder. *The Moral Laboratory*, pp. 151–4.

[87] Hakemulder. *The Moral Laboratory,* p. 153.

[88] J. Hakemulder in *The Moral Laboratory. Experiments Examining the Effects of Reading Literature on Social Perception and Moral Self-Concept*. Amsterdam: John Benjamins Publishing Company, 2000, pp. 153–5 bases his claim on the assumption that what he calls 'literary fiction' often includes more demanding narratives and deeper characterisations and in general forces the reader into a more slower reading pace that results in a more introspective reading experience.

[89] Darko Suvin introduced the concept of 'cognitive estrangement' as a definition of science fiction by claiming that it was the 'cognitive' that separated science fiction from other estranging speculative genres such as fantasy and horror. While Suvin has been rightly criticised for his elitist attempt to define science fiction and for the problems with the 'cognitive' element of the term, his work established estrangement as a central concept in science fiction scholarship (see, for example, I. Csicsery-Ronay, *The Seven Beauties of Science Fiction*. Middletown: Wesleyan University Press, 2008, and Roberts, A., *Science Fiction*, London: Gollanz, 2006).

[90] Hakemulder. *The Moral Laboratory*, pp. 153–4.

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Mother Machine: '*Not the true parent is the woman's womb*'.[1] Margaret Atwood's *The Handmaid's Tale*

> Ordinary, said Aunt Lydia, is what you are used to. This may not seem ordinary to you now, but after a time it will. It will become ordinary.[2]

> Money talks. If you have money, you're going to have a baby. I believe in this type of science. I believe in family balancing, gender selection, selecting out abnormal embryos, using egg donors, sperm donors, this is what I do. I love what I do. The ultimate goal here is bringing happiness for someone.[3]

Margaret Atwood's novel *The Handmaid's Tale* (1985) describes how fertile women are imprisoned and forced to give birth to children for the ruling class in the theocratic republic of Gilead. In 1985 this hypothetic scenario seemed to be an exaggerated and spectacular horror story. We recognise many of the government-sanctioned traditions in Gilead as amplifications, parodies or literal interpretations of stories and prayers in the *Old Testament* in the *Bible*. Atwood uses several fascists, fanatical and religious systems from history in the structure of her fictive society and bases the novel's questionable activities on historical religious and ideological practices found in various parts of the world.[4]

The Handmaid's Tale could be read as social criticism, where women are oppressed in the cruellest of ways. However, the actual context when Atwood wrote *The Handmaid's Tale* was that President Ronald Reagan ruled the White House and conservative Christian morals were on the rise throughout America. Atwood stated in an interview that: "*The Handmaid's*

Tale seemed to gather additional credibility with the subsequent rise of the Moral Majority there, the Presidential candidacy of Pat Robertson and the sexual and financial imbroglios of various television ministries."[5] This conservative movement, which evangelical personality Jerry Falwell dubbed the 'moral majority', opposed such expressions of personal freedom as an individual's right to practise homosexuality or a woman's decision to choose a career rather than a family and life at home.

In *The Handmaid's Tale*, Atwood exaggerates and projects these conservative values and combines them with the puritanical ethos of Gilead to create an authentic and immediately forthcoming society. The actions carried out in Gilead, such as the hangings and manner of dress, are inspired by those of the puritanical colonies. The crimes for which people are punished in the novel, such as homosexuality or performing abortions, were inspired by the opinions of the 'moral majority'. The novel could also be read as criticism of the totalitarian and fascist systems of the past, placed in a surrealistic American context. It is a novel that portrays misogynous conditions and women's situations that have become increasingly problematic. At some point, society has reverted to a cruel oppression of women, where a functioning uterus is their only hope and their greatest curse. On some occasions the protagonists ask themselves how they could have missed the signs and the preparations.[6]

The Handmaid's Tale became an important feminist novel in the 1980s and 1990s. Read as a metaphor it is a strong story and regarded as one of Atwood's most important novels. However, in 1985 it was not obvious that the novel could or would be read as a serious criticism of a possible future condition. But something happened to bring the novel back to a new time and a new reality. When cable television company HBO produced a TV series based on the book in 2017 (Season 2, 2018, Season 3, 2019, continuation follows) the socio-political reality had changed, in that women around the world were now being paid to function as artificial wombs.

When *The Handmaid's Tale* became a successful TV series it also became an iconic story of misogyny. Women started to wear similar outfits as those in the series – the handmaids' red uniforms – when demonstrating and protesting in courts about the right to free abortion. Almost in an instant, the red uniform and white hat – with wings to narrow the field of vision – became iconic. The idea is that most people will recognise what the uniform represented, and the kind of oppression that women are protesting against.

Surrogate motherhood that has been systematised by the state is at the

core of Atwood's fictional world of Gilead. Fertility has decreased dramatically in that society and the men of Gilead rule the roost in an old-fashioned, patriarchal way. The male leaders matter-of-factly assume that infertility is due to female deficiencies and that wives who are barren must become mothers in order to fulfil their life's calling. The solution is to force young and fertile women to become slaves to the ruling patriarchs so that they can bear and give birth to their children and, in so doing, benefit the system.

I discuss commercial surrogacy in relation to a mindset I call *male pseudo-generation*.[7] I argue that behind some of the debates concerning modern reproductive techniques as well as surrogacy, uncomfortable, old, misogynic ideas are reappearing with a new technological twist that fits modern society. Arguments based on previous mindsets are activated and updated by for example changing the content of words like 'mother', 'father' and 'parenthood', which in turn changes the importance of parental relationships in discussions about surrogacy. Above all, the connections between biology and human individuals dissolve into nothingness in pro-surrogacy debates.

Erich Fromm's statement from 1956 in *The Forgotten Language* can be an interesting thought to take into account during this journey into thoughts about surrogacy in fiction, theory and reality:

> In order to defeat the mother, the male must prove that he is not inferior, that he has a gift to produce. Since he cannot produce with a womb, he must produce in another fashion; he produces with his mouth, his word, his thought.[8]

Some of the thought patterns that have run through history and up to today are studied in relation to the ideas in Atwood's novel.

When we talk about surrogacy, we mean the practice of paying a woman to have an embryo transferred to her womb and bear the child for someone else. The practice, known as gestational surrogacy, has been growing steadily over the last decades, although in many countries it is still illegal. The text examples provided in the chapter come from religion and literature and show how different writers from a wide range of historical periods have envisioned other forms of reproduction than what is regarded as a 'normal' procedure by a man and woman. As the range of fertility options that are open to clients have diversified, so have their requests.

Commercial surrogacy is the ultimate outsourced labour. The female body has again become a commodity on a worldwide scale and so have

babies. It should go without saying that it is poor(er) people who provide services to well-off people: "Women of the South [...] are increasingly reduced to numbers, targets, wombs, tubes and other reproductive parts by the population controllers", Maria Mies and Vandana Shiva wrote in the early days of IVF.[9]

Hence, the third millennium is the time when an ancient male dream has finally become reality: "Birth may from fathers, without mothers, be", Aeschylus described.[10] I analyse the perspectives of female writers, philosophers, and novelists in order to discuss the dreams, fears and hopes that are played out in theory and fiction concerning ideas about the reproductive practices that are now part of our everyday reality – and are spreading. That is, a mindset that imagines it possible and/or desirable to separate women and childbirth.

Old thought patterns are thus brought into the future. What takes place today can be seen as the result of an enduring male dream, a specific mindset called male pseudo-generation, and I want to discuss how ideas forego reality in the area of reproduction. To do this, surrogate motherhood is considered a business in the area of consumption, and as a product of a long, historic, male pseudo-generative dream and fantasy.[11] The intention is to emphasise that women's bodies have been considered as possible assets in economic and social trade transactions throughout history. Women give new life to families and societies and simultaneously, there is this long history of depriving women of actual, social and mental rights in connection with the same. In debates about surrogacy, women's existential, physical, and mental experiences of carrying and giving birth to a child, are consequently ignored, excluded, under-described or distorted.

The Handmaid's Tale

The totalitarian state Atwood created, is based on various elements from extreme Christian sects, and an old story from *Genesis* is resurrected and reproduced. One of the most important cornerstones in the state of Gilead is a story in *Genesis* chapter 12, in which the patriarch Abraham is childless because his wife Sarah is barren. Sarah's solution to the problem is to allow her handmaid, Hagar, to conceive a child with her husband and ruler Abraham:

> 16:1 Now Sarai Abram's wife bare him no children: and she had an handmaid, an Egyptian, whose name was Hagar. 16:2 And Sarai said unto

> Abram, Behold now, the LORD hath restrained me from bearing: I pray thee, go in unto my maid; it may be that I maybe obtain children by her, And Abram hearkened to the voice of Sarai 16:3 And Sarai Abram's wife took her maid the Egyptian, after Abram had dwelt ten years in the land of Canaan, and gave her to her husband Abram to be his wife. 16:4 And he went in unto Hagar, and she conceived: and when she saw she that had conceived, her mistress was despised in her eyes[12]

Gilead's regime legitimises and motivates the captivity and slavery of women with reference to the Bible, which is regarded as the Word of God.

Many aspects of a handmaid's imprisonment in Gilead materialise as rituals manifesting her special status as a potential childbearing woman. The most important ritual is the procreation ceremony, which takes place in the marital bed, where Offred stretches her hands high above her head and the wife, Serena Joy, holds her hands: "each of mine in each of hers. This is supposed to signify that we are one flesh, one being. What it really means is that she is in control of the process and thus of the product. If any".[13] During this ceremonious ritual, the connection is designed to demonstrate Serena Joy's control, even pin Offred down if necessary, and ascertain that if Offred conceives, Serena is the real mother to the child. Offred just happens to be the vessel to make it happen.

The reproductive system in Atwood's novel also echoes the mindset in Nazi reproductive programme 'Lebensborn'. This was a Schutzstaffel (SS) programme devised to propagate Aryan traits:

> As early as December 13, 1934, I wrote to all SS leaders and declared that we have fought in vain if political victory was not to be followed by victory of births of good blood. The question of multiplicity of children is not a private affair of the individual, but his duty towards his ancestors and our people. The SS has taken the first step in this direction long ago with the engagement and marriage decree of December 1931. However, the existence of sound marriage is futile if it does not result in the creation of numerous descendants. (...) serves the SS leaders in the selection and adoption of qualified children. It is the honourable duty of all leaders of the central bureau to become members of the organisation 'Lebensborn e.V'.[14]

This programme became a reality and resulted in untold suffering for many people, mothers as well as their offspring. One of the ideologies behind the Lebensborn programme was the view that some human beings were inferior to others and that superior people could therefore treat inferiors as they wished, usually for their own benefit.[15] The uniforms of the

secret service in the TV series *The Handmaids Tale* are clearly designed to make us associate with the Nazis. The men in the secret service are called 'the Eyes' and are obviously God's prolonged arms and sight – and the ruling patriarch's Eyes: 'Under His Eye' is a well-used phrase of greeting in this community.

Since the novel's release in 1985, Margaret Atwood has been repeatedly asked "the same question about *The Handmaid's Tale*: 'how did you come up with this stuff'? Her answer has always been the same, that the terrifying events of the novel all have their precedents in some of the darkest chapters in world history".[16] Previous ideas, values, approaches, world views and ideas about women, men, children, families, societies and hierarchies are all visible in Atwood's novel.

Something happened in our societies that made the almost 40-year-old novel distressingly relevant. As a result, we can no longer read Atwood's novel or watch the film adaptation as imaginative horror fiction. We now know that there are enormous economic forces in reproduction companies and that important moral and philosophical questions have emerged in the wake of these. One of the many problems that arises when discussing commercial surrogacy is that the focus tends to be on whether those women who bear and give birth to rich people's babies are treated well or paid well. To show how some ideas regenerate and adapt to new technique, I discuss the concept of male pseudo-generation, because it is important to understand how old arguments and values are transformed into new times, techniques, and new generations.

Male pseudo-generation

In order to understand some of the problems with the practice of paying women to bear and give birth to children for other people, some intertexts may shed a little light in the darkness, especially when we consider that a long misogynist history has made the current situation possible. The starting point is thus earlier mindsets that have made many historical and contemporary ideas possible to realise. Male pseudo-generation is a thought tradition with deep roots, where it was imagined that men could create their own offspring and where women were simply regarded as containers.[17] Perceptions that man alone can create conscious life, or an image of himself, are found in several mythological stories. In the Greek mythological tradition male gods produced offspring, which was

an argument that the mother was only a container for the man's seed. In accordance with an ancient Jewish tradition, rabbis were able to create a golem – an anthropomorphic being – that acquired bodily form and consciousness when the creator used the four basic elements and wrote God's name on its forehead.[18]

The gods in Greek, Judah-Christian and Norse myths, who were thought to be the creators of everything, are defined as male spiritual beings who used their words or thoughts to create and organise the world. In the Greek tradition, we have Plato's term *chora* from *Timaios*. This means that the woman is considered a container, or vessel, that passively allows the man's seed to develop inside her and become a human being.[19] The same idea is communicated in *Eumenides*, written by Aeschylus in 458 BC. The order of genealogy as it is formulated emphasises that there is a substantial difference between the generative capacities of the sexes. The convincing argument is taken from the stories about gods and goddesses:

> Not the true parent is the woman's womb/That bears the child; she doth but nurse the seed/New-sown: the male is parent; she for him,/As stranger for a stranger, hoards the germ/Of life; unless the god its promise blight./ And proof hereof before you will I set./Birth may from fathers, without mothers, be:/See at your side a witness of the same,/Athena, daughter of Olympian Zeus,/ Never within the darkness of the womb/Fostered nor fashioned, but a bud more bright...[20]

This quotation from Aeschylus, written in the 5th century BC, shows that the important message is to cut women short in the reproductive process. Mothers are simply regarded as a *chora*, where offspring can grow until they are ripe and then be born into the world and its father.

According to the Judah-Christian tradition, God formed the first human beings out of dust. Interestingly, according to *Genesis* chapter one, God created man and woman at the same time.[21] But it is the story told in *Genesis* chapter two that has been of more theological interest.[22] It was relatively easy to build patriarchal structures and lean against these ancient lines, especially when the assumption was that the words in the text were formulated by God himself. According to chapter two, Adam is created in God's image and Eve is created in Adam's image with the purpose of serving the man. When Eve comes into being, Adam has already named all beings and plants and has been taught by God how to act and behave in the new world. It is Adam who teaches Eve, and we all know how that story goes.

The woman is created by God for Adam's advantage, which means that she is inferior, and he is the one who decides what her part in the play will be.[23]

In John Milton's *Paradise Lost* (1667), the tradition and mindset in Genesis is both re-established and developed further. One possibility for Milton could have been to extrapolate the first chapter of *Genesis*. He does not do that, though, and the myth about the origins of mankind are reinforced with implications relating to human (read female) life. According to Milton, Adam emerges from the earth through God's ideas about him. Later, Adam dreams about Eve, wakes up and there she is next to him in paradise.[24] His dream has become reality. The difference between coming into existence for the male and female is similar to the description in *Genesis* chapter 2, although Milton takes the myth a step further. In Milton's narrative, God has nothing to do with Eve's coming into the world: Eve is a being completely of Adam's making. That makes her an inferior being in relation to the First Man, who is God's creation. Eve is the result of the man's desire and creative act – she does not even exist in God's imagination.[25]

In its most extreme form, this mindset leads to the idea that a woman's "role is mainly to be a kind of incubator for the fetus, created either by the father or by a male Deity" as Margaret Clunies Ross states in *Prolonged echos*.[26] In a similar way, old Norse male gods were capable of creating offspring without the help of goddesses. "He be called Allfather: because he is father of all/the gods and of men, and of all that was fulfilled of him/and of his might. The Earth was his daughter and his wife;/on her he begot the first son".[27] This is another example of the thought manoeuvre that implies that the mother's part in creation is denied or diminished.

In science's earliest visions of what can be accomplished in laboratory experiments, male pseudo-generation is a major ingredient. One of the great projects of science was to create life without the participation of a female counterpart, and an embryo with great intelligence also emerges in the glass flask in Faust's laboratory, Homunculus.[28] J. W. von Goethe's *Faust II* was published in 1832 (part I in 1808). In this famous play, Wagner succeeds in creating a Homunculus as the first test-tube baby in our literary history: an intelligent being made by man. A kind of preformation theory is the basis for the idea in Goethe's play. Embryological 'theory' was presented in the 17th century by Malpighi and Leeuwenhoek, was predominant in the 18th century and later replaced by the competing idea of epigenesis. The story of Homunculus does not end there though. The end is an unexpected fusion with Galathea, a man-made woman.[29] However, the interesting ending of

Homunculus' existence belongs to other discussions about artificial beings. These old mythological and fictive male dreams about creating sons without being dependent on women's contributions or involvement can be said to be a dream about freedom: Men's freedom from women. Cutting off the emotional string between child and woman is essential in this process as well.[30]

With the novel *Frankenstein or the modern Prometheus* (1818), Mary Shelley wrote what historian John Turney appoints "the governing myth of modern biology".[31] Turney writes that Frankenstein will "remain a powerful symbol of our hopes and fears of a truly effective applied biology's ability both to break down old categories and to offer new ways of shaping our bodies, for good or ill".[32] Shelley takes the narrative of the scientific male dream even further and depicts male dreams to conquer both the geographical world and the female body. Margaret Homans states that Victor Frankenstein's creative act

> violates the normal relations of family especially the normal sexual relations of husband and wife. Victor has gone to great lengths to produce a child without Elizabeth's assistance, and in the dream's language, to circumvent her, to make her unnecessary, to kill her, and to kill mothers altogether.[33]

The continuation of the tradition of male pseudo-generation is at the novels core: the overall goal of the scientist/male protagonist is to create life without women and as a result, women close to him dies. Homans writes that in *Frankenstein*, "women's role is to be that silent or lost referent, the literal whose absence makes figuration possible".[34]

Anne K. Mellor argues that by removing the female body from the process of reproduction, Victor "has eliminated the female's primary biological function and source of cultural power" and in doing so reinforced a patriarchal devaluing of women's role in society.[35] Mellor argues that the novel is Shelley's critique of a system that encourages such a separation and results in the death and destruction of women. Frankenstein's "fear of female sexuality is endemic to a patriarchal construction of gender. Uninhibited female sexual experience threatens the very foundation of patriarchal power", Mellor argues.[36]

Strother writes in *Speculative Sexualities and Futuristic Families: Representations of Reproduction and Kinship in Science Fiction* (2017), that Frankenstein can represent nineteenth century fears as well as contemporary fears regarding technology and the constructed body "because of the ways in which the mythology challenges the concept of 'human' which remains

in flux as continued advances in technology further blur the lines between human and machine".[37] Strother claims that "*Frankenstein* has become more than just a seminal work of science fiction; it is a mythology that is ingrained into contemporary culture".[38] Mary Shelley's novel – among many other analytic possibilities of this complex novel – is an important example of possible consequences of the mindset male pseudo-generation.[39]

History, with the help of science, has caught up with fiction, hopes and nightmares. An important novel when it comes to reproductive alternatives is Aldous Huxley's *Brave New World* (1932). Here, new human beings are produced in 'test tubes' or, more correctly, in artificial wombs, and are scientifically engineered to fit into different parts of society's machinery. People in this society live contented and peaceful lives and we understand that this is due to the consumption of a soothing, happiness-producing drug called *soma* that keeps people in a contented state with no desire to ask critical or existential questions.

As can be gathered from the fragments from the ancient and contemporary texts mentioned, the dream of reducing the connection between women and childbirth has been constant in our culture. When it comes to commercial surrogacy, the problematic situation accelerates. In Huxley's novel no-one comes to any harm if we only look at the reproductive process. The artificial wombs and glass tubes make it possible to produce new people without exploiting or misusing female bodies. This also open towards future visions about reproduction in other ways, such as narratives portraying different techniques in order to free women from the 'reproductive burden'.

An emancipatory project or a new trap?

The idea of alternative reproductive techniques has played an important role in defining the more central aspects of gender inequality. It is constantly stated that bearing, birthing, and fostering children are unceasing obstacles for women.[40] Writers of science fiction use the genre for hypothetical thought experiments: the possibility of extra-polating and exploring alternative social structures and biological probabilities. Can new or other reproductive strategies play important roles in an emancipatory project?

One question is whether biological or technical surrogacy is a way of liberating women and sharing parenthood in ways that are not possible in a 'normal' reproductive sense. This is an underlying idea in science fic-

tion from women experimenting with alternative family structures and reproductive techniques. Being pregnant, bearing a child and giving birth are important activities that imprison women in their bodies and gender. As Donna Haraway writes: "Ontologically always potentially pregnant, women are both more limited in themselves, with a body that betrays their individuality, and limiting to men's fantastic self-reproductive projects."[41] As I highlight in the introduction chapter,[42] gender, gender structures and bodily constitutions have been debated and negotiated for several decades in terms of power, patriarchy, history, and religion. Reproduction, on the other hand, is believed to belong to the personal realm of family life. Individualistic politics strengthen the idea that families and reproduction belong to our individual and personal lives.

Female philosophers and authors have written theory and fiction as a means to propose and discuss new solutions, new possibilities and new directions for family life and reproduction. One important issue has been to investigate new and possible ways of liberating women from what is considered to be the difficult trap of reproduction. But will new family structures and/or social structures do the trick, or will we need to liberate women from reproduction altogether?

The protagonist in Margaret Atwood's novel *The Handmaid's Tale* reflects over many of the problems women have faced over time. Her name as a handmaid is 'Offred' which is a simple way to determine which man she belongs to: His name is Fred, and her name naturally becomes 'Of-Fred'. Offred sits naked in the bath and compares how she used to think about her body to the way she thinks about it now. Before, she experienced her body as an instrument, an extension of herself. In this passage she reflects on her body as a prisoner:

> I used to think of my body as an instrument, of pleasure, or a means of transportation, or an implement for the accomplishment of my will . . . Now the flesh arranges itself differently. I'm a cloud, congealed around a central object, the shape of a pear, which is hard and more real than I am and glows red within its translucent wrapping.[43]

Offred no longer matters, even to herself, in this captivated circumstance. Her body is important only due to the 'central object' of her uterus, which enables her to bear a child. She reflects that it is best to "avoid looking down at my body, not so much because it's shameful or immodest but because I don't want to see it. I don't want to look at something that

determines me so completely".[44] Offred's thoughts show – in an alarming way – that she has internalised Gilead's attitude toward herself, women and their bodies. In Gilead, women are not individuals, but objects for their owners and the children they may bear. Women's uterus are seen by the state as a 'national resource', using language that dehumanises women and reduces them to "a cloud, congealed around a central object, which is hard and more real than I am" as Offred puts it.[45] Hence, under difficult circumstances it may be logical to accept otherwise unacceptable conditions. It is rather like someone offering a poor woman relatively good pay for nine months of childbearing and childbirth. Under difficult circumstances it may seem a good option in spite of risks.[46]

When Atwood's novel was published, science had made great strides in areas that many women feared were serious setbacks in the progress gained and victories won during the 10-15 years previous to the novel's publication.[47] The ongoing development in societies today, which Atwood somewhat hypothetically discussed in the 1980s and presented as difficult scenarios, have become today's reality. In an article entitled *Problems in commercialized surrogate mothering* (1994), R. Alto Charo states that commercialized "surrogate mothering is an unworkable arrangement for helping infertile couples to have children".[48] Charo stresses that many problems arise in this area and writes that the arrangement "requires a woman to undergo artificial insemination, to sustain a pregnancy and to relinquish the child upon birth to the genetic father". During the pregnancy, the arrangement calls for restrictions on the surrogate mother's behaviour and authority to make medical decisions about herself and the foetus. Such restrictions are unenforceable under contract law and the usual social mechanisms to induce compliance are absent:

> Due to the large sums of money involved and the growing industry of surrogate mother brokering, efforts have begun in many state legislatures to regulate the arrangements, and in particular the behavior of the surrogate mothers, in order to increase the predictability and workability of the arrangements. If passed, these state laws could set a dangerous precedent for regulating all women during pregnancy and standardizing the behavior and medical care of pregnant women. Noncommercialized surrogate mothering does not pose these same threats and is likely to continue for many years to come.[49]

Now that surrogacy has become big business, the problems that Charo highlights are also widely discussed today.

In *The Handmaid's Tale*, women are enslaved in order to give birth for the ruling class. Fertile women are not paid in this slave society, but they avoid being killed or transported to the terrible working districts. The childbearing women are treated extremely badly mentally but are 'cared for' when it comes to nutrition and rest because they need to be in good physical condition to give birth to healthy children.

Michele M. Moody-Adams discusses surrogacy from linguistic, legal, moral and philosophical points of view in her book *Morality, Markets, and Motherhood* (1991). She notes that some "basic reflection on rudimentary biological facts could have revealed the shortcomings in the notion that a pregnant womb is just a 'surrogate womb'".[50] Moody-Adams stresses that our discussion about the process reflects an attitude that is deeply embedded in many cultures. In the contract

> a woman who signs a surrogacy agreement, some have argued, is not a surrogate *mother* at all, but rather a 'surrogate womb' or a 'surrogate uterus': In both structural and functional terms, Mr. and M parents to Baby M was achieved by a surrogate uterus and not a surrogate mother.[51]

It is obvious that a womb cannot have claims to the child, legal or otherwise. As long the differentiation is possible to withhold, the discussion about law and rights can be in focus. Moody-Adams finds this to be a dangerous path, yet one that is possible due to language and traditions. She also strongly emphasises that surrogacy for pay is not just another kind of reproductive technology. It involves other people and claims that the needs of those who are unable to conceive are more highly appreciated than another person's needs. Moody-Adams argues that the idea that the woman's contribution to a child's being is somehow unimportant is problematic. She writes that in these contexts it is "grossly subordinate to the man's contribution in cases of routine pregnancy, certain linguistic conventions may make it difficult to take the woman's contribution to the child very seriously".[52] For instance, in English the word 'father' is often used as a verb to describe the consequences of one relatively brief physical act. "The verbform of the word 'mother', on the other hand, is commonly reserved only for the ongoing activity of actually nurturing the child after it is born."[53]

This strengthens my idea that the mindset imbedded in the long traditions in religion, myths and literature has paved the way for our current situation. Myths and literature about male pseudo-generation show a surprising

degree of conformity when it comes to ideas about the roles of women and men in relation to their place in the creation hierarchy and the reproductive process. Even though women may be necessary in the bearing and birthing of new individuals, this is of secondary importance in the process. The mindset continues to argue that it is the man, the father, who is the important actor.[54]

What at first sight could have been an emancipatory project now actually seems to be new traps for lots of women in our world. These traps were highlighted by Gena Cora in *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs*. She extrapolated what she saw in the mid-1980s and warned that commercial surrogacy would be the next step.[55] Maria Mies writes during the same time about the dangers connected to surrogacy she can see for poor women – and women of colour – in "New reproductive technologies: Sexist and Racist Implications" (1987).[56] Maria Mies predictions about the future have become a reality for many women some decades later.[57]

In the introduction to the 2016 edition of her novel *Woman on the Edge of Time*, Marge Piercy asks: "Why write a novel like *Woman on the Edge of Time* set in the future? The point of such writing is to influence the present by extrapolating current trends for advancement or detriment."[58] When the book was republished 40 years after the first edition, she gave a review of feminist ideology and history from the 1970s to 2016 and claimed that in the 1970s female utopias and optimism were possible and that certain changes were made. Equality on many levels of society seemed possible, and women pictured and described possible changes in society. One significant change related to the question of reproduction, given that this is one of the most important events in a woman's life. Regardless of whether they wanted children or not, women were trapped when they became pregnant and gave birth.

Marge Piercy claims that the reason why women no longer write utopias is that 40 years later she and many other feminist writers are occupied with the struggle to defend the victories that have been achieved in earlier decades.[59] Inequality has increased when it comes to gender and class, both socially and economically, and the victories that have been won are not secured for the future. Free abortion is threatened in several states in the USA and in other countries – a frightening backlash that strikes women hard.

"Money talks: If you have money, you're going to have a baby"

Surrogacy is big politics and big business in our time. Since there is a demand for babies, entrepreneurs make sure their customers get what they want – at a price they can afford. Exclusive goods cost more and are not for everyone. This is perfectly normal capitalism. However, and not surprisingly, it is poor and uneducated women who contribute so that production and demand can work for these special business transactions. It turns out that babies are expensive – and exclusive – goods. Surrogacy has become an important part of the modern visions of family-making and reproduction and is no longer fiction. The reproductive market and the entire enterprise are based on mindsets emerging from patriarchal ideas that can be traced back in history and literature and to ideas about reproduction, family, women's inferiority and subordination.[60] *In Sex Robots & Vegan Meat* (2020), journalist Jenny Kleeman investigates the world of those who "are changing what it means to be human."[61] She focuses on "the central pillars of the human experience – birth, food, sex, and death".[62] Kleeman examines the people who are driving the innovations and claims that we are:

> [...] on the brink of seismic changes in the ways we live and die, from babies grown in artificial wombs to lab-produced meat; from sex robots able to hold polite conversation (and otherwise) to being able to choose to end our days with the perfect, painless, automated death. Our journey from cradle to grave is developing in ways which involve more and more technology, and less and less human interaction. Might these advances in technology serve to rob us of our humanity?[63]

Kleeman places scientists at the core of the problem and asks what is driving and motivating them. She finds that it is men who are behind the dreams and science and concludes that it is "a habit that's as old as the hills".[64]

Jenny Kleeman's article in *The Guardian* (2020), "Having a child doesn't fit into these women's schedule: is this the future of surrogacy?", is an interview with Dr. Vicken Sahakian who specialises in surrogacy. According to Dr. Sahakian, a growing number of women turn to his clinic for what is called 'social surrogacy'. Dr. Sahakian claims to see an "increase in patients avoiding pregnancy or time off work by paying someone else to carry their baby – with no medical need to do so."[65] There is no medical reason for them to use a surrogate, they simply choose not to be pregnant. They conceive by means of in vitro fertilisation (IVF) and then hire another woman to gestate

and give birth to their baby. "I don't have issues with it," says Dr. Sahakian smiling at the journalist: "If you're a 28-year-old model or an actor and you get pregnant, you're going to lose your job – you *will*. If you want to use a surrogate, I'll help you."[66] If his clients are open to using other people's eggs, sperm or uteruses and are prepared to pay, anything is possible. Dr. Sahakian's clients have one important thing in common: they can afford his services. The price tags are related to the financial status of the surrogate mother and the financial and technological status of her home country.

Companies specialising in surrogacy have access to a massive advertising industry to sell their products. They both promise and reassure their potential customers that surrogacy is a totally safe transaction and that it is financially possible to achieve the dream of a family. In several articles published in *The New York Times* we can read heartbreaking stories about couples and their problems with surrogacy, bureaucracy and how it all went wrong.[67] These articles describe one of the main reasons for my concern about surrogacy: "Those able to pay [...] often turn to an American agency in a state where surrogacy is legal and fairly widely practiced. Those with less money often go to India or to Mexico [...] that advertise heavily and charge less than half the American price."[68] What is upsetting in this article is that couples often become victims of fraud, that the surrogacy agency lacks accountability and that the agency's "ability to prey on vulnerable clients who want a baby so badly that they do not notice all the red flags".[69] The possible difficulties for the surrogate mother, due to economic or other results of the fraud, are not mentioned. Why should they even mention her? The surrogate mother is only a vessel to fulfil the needs of people paying for a service. Jenny Kleeman states:

> We are on the brink of an age when technology will redefine ... the fundamental elements of our existence. [...] you are left dismayed not so much by what lies ahead as by the current reality of the men with planet-sized egos vying with one another to control birth, food, sex and death. It's a habit that's as old as the hills.[70]

Once again, poor women are mainly considered as reproductive entities that can be used or exploited by rich people from countries that already have a considerable history of colonialism and exploitation.[71] It is the ultimate in outsourced labour.[72] Dr. Sahakian stated that a few years ago he presided over a handful of social surrogacy cases a year. Now, he sees at least 20: "More and more every year. And if I'm seeing that, there are so

many reproductive endocrinologists in the area who are very competent fertility specialists – I'm sure they are seeing the same." It costs $150,000 to have a baby this way. Dr. Sahakian continues: "If social surrogacy was more affordable, more women would be doing it, absolutely. There's an advantage to being pregnant, the bonding, I understand that, and from experience I can say that most women love to be pregnant. But a lot of women don't want to be pregnant and lose a year of their careers."[73] Some decades ago, this would have been classified as science fiction. While the price tag is much higher than that for babies bought in developing countries, it is still rich men and women who buy the bodies of women who are much less well off.

The old dream of creating life without the help of women has thus changed in our time. The dream is now shared by women who also see the possibility of 'having children' without the need to be pregnant or give birth themselves. Some women argue that it is a way of finding paid work. Amrita Pande, an Indian sociologist, feminist ethnographer, published the first detailed ethnographical study of the transnational surrogacy industry in India. Her book *Wombs in Labour* was published in 2014, Pande analyses surrogacy from all conceiable angles in order to explain and understand what is going on in this difficult business where female bodies and babies are the goods traded. Pande uses the term 'mother worker' to explain how women are trained and recruited into the surrogacy industry.[74] In an article, "Commercial Surrogacy in India: Manufacturing a Perfect Mother-Worker",[75] she writes that the "perfect surrogate – cheap, docile, selfless, and nurturing – is produced in the fertility clinics and surrogacy hostels". The perfect surrogates are not ready, but can be produced:

> When one's identity as a mother is regulated and terminated by a contract, being a good mother often conflicts with being a good worker, which makes the perfect surrogate subject rather difficult to produce. It requires a disciplinary project that works both discursively—through language and metaphor—and through the materialization of discourses in the form of enclosures, or surrogacy hostels. By bringing together insights from feminist literature on factory work and global production, I argue that through the various stages of the disciplinary process a new mother-worker subject is produced, a subject similar to a trained factory worker but one who is simultaneously a virtuous mother. At each stage of the disciplinary process, the mother-worker duality is manipulated in ways that most benefit the mode of production, from the recruitment of guilt-ridden mothers to the disciplining of poor, rural, uneducated Indian women into the perfect mother-workers for national and international clients.[76]

The struggle for surrogacy takes place in the narratives and in the language. What is interesting in this text is that Pande wants the reader to associate surrogacy with factory work, or other kinds of labour. The choice of words and metaphors are important parts of Pande's argumentation and narrative: the 'good worker', 'disciplinary project', 'disciplinary process', 'a new mother-worker subject', 'similar to a trained factory worker' and 'simultaneously a virtuous mother'. Finally, she reaches the point: which is to 'benefit the mode of production'. Pregnant bodies, birth-labour and blood are not visible in the narrative.

Kutte Jönsson uses a strategy similar to the one described by Pande in his dissertation, namely "through language and metaphor"[77] make the reader forget what is at stake. In *The Forbidden Motherhood: A Moral Philosophical Study of Surrogacy* the following question and answer form the main topics of the study: "Can a legal prohibition of surrogacy be morally justified? My answer is simple – no".[78] One of Jönsson's main arguments is that

> in favour of permitting surrogacy is based on the idea that the state should be value neutral when it comes to adult persons' life choices. It means that every adult member of the society has a right to decide what to do with his or her body without state interference, as long as the actions do not interfere with the equal right of others. In not allowing surrogacy, the state impedes the principle of self-government. [79]

Jönsson argues that commodification does not imply degradation: "I argue that paid surrogacy can favour many women. Moreover, for many women paid surrogacy can be a manoeuvre for transcending traditional gender roles. In fact, one can argue that there is something antipatriarchal about paid surrogacy." In his dissertation, it is clear that who defines the words also defines the outcome of the surrogacy debate: Jönsson defines pregnancy as a job among other jobs and argues that this is not necessarily a bad thing: "On the contrary, a more liberal reproductive ideology would widen our liberty".[80] He also attempts to describe surrogacy as a possible act of female liberation.

In *Being and Being Bought: Prostitution, Surrogacy and the Split Self* (2010), Kajsa Ekis Ekman decodes an alarming new language in which children become a commodity or a 'product'. Conceptual shifts and abstractions turn oppression into freedom and the female body is (again) a commodity.[81] Ekis Ekman continues the argumentation that Gena Cora started in her book *The Mother Machine: Reproductive Technologies from Artificial*

Insemination to Artificial Wombs (1986). The difference is that during the decades between Cora's warning about a possible outcome of the technology she investigated, it has become a reality that Ekis Ekman can discuss based on real practice.

The debate in Sweden has become highly polarised. Paediatrician Ingemar Kjellmer claims that the wishes of childless adults have been taken too much into account. Apart from the risks of custody disputes and an uncertain legal status for the child, the claim that it is good for children to be born through surrogacy is exaggerated. The reasoning about the difference between altruistic and commercial surrogacy has been simplified. Furthermore, Kjellmer argues that "through insidious language"[82] the reader of the report is led "towards an overly permissive attitude towards new ways of manipulating the way of 'having children'".[83]

"Faith in the creative powers of the imagination" [84]

> Maybe none of this is about control. Maybe it really isn't about who can own whom, who can do what to whom and get away with it, even as far as death. Maybe it isn't about who can sit and who has to kneel or stand or lie down, legs spread open. Maybe it's about who can do what to whom and be forgiven for it. Never tell me it amounts to the same thing.[85]

Rosa Braidotti writes that human embodiment and subjectivity are "currently undergoing a profound mutation".[86] She writes that "like all people living in an age of transition, we are not always lucid or clear about where we are going, or even capable of explaining what exactly is happening to and around us".[87] Braidotti argues for what she calls a 'post-human ethics', and claims that "faith in the creative powers of the imagination" is decisive and that conceptual "creativity is simply unimaginable without some visionary fuel".[88] Based on this assumption, she argues for a posthuman ethics that departs from the conception that our bodies and lives are constantly under negotiation. Braidotti writes that as humans, "all too posthuman, these extensions and enhancements of what bodies can do are here to stay. [...] This is a new situation we find ourselves in: the immanent here and now of a posthuman planet".[89] Braidotti balances her theory and analysis between positive and negative effects, discusses the possibilities as well as the risks and, above all, is concerned about the global effects of the actions taken:

> Prophetic or visionary minds are thinkers of the future. The future as an active object of desire propels us forth and motivates us to be active in the here and now of a continuous present that calls for both resistance and the counter-actualization of alternatives.[90]

Braidotti argues that the yearning for sustainable futures can construct a liveable present and that this is not "a leap of faith, but an active transposition, a transformation at the in-depth level."[91]

Throughout history, as we can see in the examples used here, women's bodies have been at the centre of countless social, political, economic and moral battles. Today, the female body is once again at the centre of political, economic and moral dilemmas, with the focus on personal and socially challenging options. Once again, we need to define what motherhood is and what carrying and birthing new life requires of the woman and what it is worth. When we discuss commercial surrogacy, motherhood is defined in cash terms and, as we know, the freedom and fulfilling of some people's dreams always seem to come at a high price for other people. Debates about free abortion are once again a focal point in politics around the globe and highlight a battle that seem impossible to win once and for all.

At the same time, IVF techniques are debated from numerous perspectives. The raped, abused and exploited bodies of women will have to carry and give birth to these children due to the patriarchal religious doctrines and traditions of many countries – where the law and constitution are based on such values. Simultaneously, a new reproductive practice enters the stage in the name of personal freedom and possibilities for a privileged few. The possibility to use poor women's bodies as surrogacy vessels for rich people in the west take place in the logic of a market economy. History tells us that imperialism has bad long-term effects, and that commercial surrogacy is imperialistic in every sense of the word.

The novelists and theorists covered in this chapter extrapolate techniques and ideas that are topical when writing texts, fiction and facts, and discussing the implications for individual and social life. These writings have a purpose: "The point of creating futures is to get people to imagine what they want and don't want to happen down the road – and maybe do something about it", Marge Piercy states.[92] The ideas presented in fiction as well as theory, say something about womanhood, parenting and how we value women, children and human life. The next generation of human beings ought to be society's concern to a much greater extent. A society cannot continue to exist without new citizens.

In Atwood's novel the pain of the women forced to be surrogacy mothers are at the heart of the narrative. In debates about surrogacy, women's existential, physical, and mental experiences of carrying and giving birth to a child, needs to be highlighted in a way that has not yet been done in debates about surrogacy. Is it, for example, impossible to imagine how debates about surrogate motherhood would have been conducted if it were not for the ideas, we can still trace in old mindsets mentioned here? Would the discussion look different without the consistent male dream of cutting women off from the reproductive process in symbolic ways? In Margaret Atwood's novel, Offred wishes this for herself:

> I would like to believe this is a story I'm telling. I need to believe it. I must believe it. Those who can believe that such stories are only stories have a better chance. If it's a story I'm telling, then I have control over the ending. Then there will be an ending, to the story, and a real life will come after it. I can pick up where I left of.[93]

After all, the creative power of imagination can take us anywhere. The hypothesis and thought experiments of both authors and (female) theorists pondering about possible outcomes of surrogacy seem to agree that it is a difficult road to embark.

[1] Aeschylus. *Eumenides.* Translated by E. D. A. Morshead: http://classics.mit.edu/Aeschylus/eumendides.html (latest accessed: 2022-12-17).

[2] Margaret Atwood. *The Handmaid's Tale*. Canada: McClelland & Stewart Limited, 1985, p. 62.

[3] Jenny Kleeman. https://www.theguardian.com/lifeandstyle/2019/may/25/having-a-child-doesnt-fit-womens-schedule-the-future-of-surrogacy (latest accessed: 2022-12-17).

[4] Interview with Ursula K. Lee Guin, *First Contact: A Talk with Ursula K. Le Guin* https://www.newyorker.com/books/book-club/first-contact-a-talk-with-ursula-k-le-guin (latest accessed: 2022-12-17).

[5] Andrew H. Malcolm. https://www.nytimes.com/1990/04/14/movies/margaret-atwood-reflects-on-a-hit.html (latest accessed: 2022-12-17).

[6] Atwood. *The Handmaid's Tale*, p. 76.

[7] Britt Johanne Farstad. *Glaspärlespelaren: Nya världar, etik och androcentrism i Peter Nilsons science fiction-romaner (The Glass Bead Player: New Worlds, Ethics and Androcentrism in Peter Nilson's Science Fiction Novels).* PhD diss., Umeå University, Umeå University Press, 2013. pp. 166–171.

[8] Erich Fromm. *The Forgotten Language*. New York: Grove Press, 1956, p. 205.

[9] Maria Mies and Vandana Shiva. "People and population: Toward a new ecology of reproduction", 1993, pp. 282-283, in Maria Mies and Vandana Shiva, *Ecofeminism*. London & New York: Zed Books.

[10] Aeschylus. *Eumenides*.

[11] Farstad. *Glaspärlespelaren*, pp. 166–171.

[12] https://www.kingjamesbibleonline.org/Genesis-Chapter-16/ (latest accessed: 2022-12-17).

[13] Atwood. *The Handmaid's Tale*, p. 122.

[14] Barrett, Roger W.; Jackson, William E. (eds). *Nazi Conspiracy and Aggression*, vol. 5. Washington, DC: United States Government Printing Office, 1946, pp. 465–466.

[15] See also Mies, "New Reproductive Technologies: Sexist and Racist Implications", pp. 174–197.

[16] https://www.penguin.co.uk/articles/2019/sep/margaret-atwood-handmaids-tale-testaments-real-life-inspiration.html (latest accessed: 2022-12-17).

[17] Margaret Clunies Ross. *Hedniska ekon: Myt och samhälle i fornnordisk litteratur (Prolonged echos,* translated by Suzanne Almqvist). Uddevalla: Anthropos, 1988, pp. 51–55.

[18] The golem plays an important role in Marge Piercy's novel He, *She and It*. New York: Del Rey, 1991.

[19] See for example Julia Kristeva, *Stabat Mater*. Stockholm: Natur och kultur, 1995, p. 33.

[20] Aeschylus. *Eumenides*: http://classics.mit.edu/Aeschylus/eumendides.html (latest accessed: 2022-12-17).

[21] Read more about this in chapter 7, in this volume.

[22] *Genesis* 1:26–27; 2:7; 2:18; 2:21–23.

[23] Rosemary Radford Ruether. https://www.svenskakyrkan.se/Sve/Binärfiler/Filer/d9b3f6ba-3b1b-40f8-b0c7-fb5fc8d4e8cd.pdf, 2011 (latest accessed: 2022-12-17).

[24] John Milton. *Paradise Lost*. Book V, 1667. https://www.paradiselost.org/8-search.html (latest accessed: 2022-12-17).

[25] John Milton, *Paradise Lost*. Book V, 1667. https://www.paradiselost.org/8-search.html (latest accessed: 2022-12-17).

[26] Clunies Ross. *Hedniska ekon: Myt och samhälle i fornnordisk litteratur*, p. 51.

[27] Snorre Sturlasson. *The Prose Edda*. https://is.cuni.cz/studium/predmety/index.php?do=download&did=62028&kod=ARL100252 (latest accessed: 2022-12-17).

[28] Farstad. *Glaspärlespelaren*, pp. 166–170.

[29] Farstad. *Glaspärlespelaren*, p. 185.

[30] Farstad. *Glaspärlespelaren*, pp. 166–170.

[31] John Turney. *Frankenstein's footsteps*. New Haven and London: Yale University Press, 2000, p. 3.

[32] Turney. *Frankenstein's footsteps*, p. 220.

[33] Margaret Homans. "Bearing Demons: Frankenstein's Circumvention of the Maternal". In *Romanticism: A Critical Reader*, edited by Duncan Wu. Oxford: Blackwell, 1995, p. 382.

[34] Homans. "Bearing Demons: Frankenstein's Circumvention of the Maternal", p. 388.

[35] Anne K, Mellor. "Possessing Nature: The Female in *Frankenstein." In Romanticism and Feminism*, Anne Mellor (ed). Indiana: Indiana UP, 1988, p. 220.

[36] Mellor. "Possessing Nature: The Female in Frankenstein," p. 225.

[37] Amber Lea Strother. *Speculative Sexualities and Futuristic Families: Representations of Reproduction and Kinship in Science Fiction*, PhD diss., Washington State University, 2017, p. 19.

[38] Strother. *Speculative Sexualities and Futuristic Families: Representations of Reproduction and Kinship in Science Fiction*, p. 17.

[39] Jay Clayton. "Frankenstein's Futurity: Replicants and Robots." In *The Cambridge Companion to Mary Shelley*. Esther Schor (ed). Cambridge, UK; Cambridge University Press, 2003, pp. 84–99.

[40] See for example Shulamith Firestone. *The Dialectic of Sex: The Case for Feminist Revolution*. Women's Press, 1979 and Strother, *Speculative sexualities and futuristic families: Representations of reproduction and kinship in science fiction*, 2017.

[41] Donna Haraway. *Primate Visions*. Oxford: Routledge, 1989, p. 353.

[42] Read more about this in chapter 1, in this volume.

[43] Atwood. *The Handmaid's Tale*, chapter 13.

[44] Atwood. *The Handmaid's Tale*, p. 67.

[45] Atwood. *The Handmaid's Tale*, chapter 13.

[46] See Amrita Pande. *Wombs in labour: Transnational Commercial Surrogacy in Indi*a. New York: Colombia University Press, 2014.

[47] Read more about this in chapter 1, in this volume.

[48] R. Alta Charo. https://www.tandfonline.com/doi/abs/10.1016/0968-8080%2894%2990013-2, 1994 (latest accessed: 2022-12-17).

[49] Alta. https://www.tandfonline.com/doi/abs/10.1300/J013v13n01_17, 2010, (latest accessed: 2022-12-17).

[50] Michele M. Moody-Adams. "On Surrogacy: Morality, Markets, and Motherhood". *Public Affairs Quarterly,* Vol. 5, No. 2, 1991, pp.175–190. https://www.jstor.org/stable/40435779 (latest accessed: 2022-12-17).

[51] Ref. to Dr. Lee Salk, quoted in Phyllis Chesler, *Sacred Bond: The Legacy of Baby* M. New York: Times Books, Random House, 1988, p. 14.

[52] Moody-Adams. "On Surrogacy: Morality, Markets, and Motherhood", n.p.

[53] Moody-Adams. "On Surrogacy: Morality, Markets, and Motherhood", n.p.

[54] Clunies Ross. *Hedniska ekon: Myt och samhälle i fornnordisk litteratur*, n.p.

[55] Gena Cora. *The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs*. New York: Harper & Row, 1986, n.p.

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Maria Nilson

Resisting Motherhood: Reproduction in Young Adult Dystopian Fiction

"Dominant western cultural, political and medical ideologies dictate that all women must want to be mothers."[1] In modern young adult (YA) dystopian novels we often meet young female protagonists who do everything they can to avoid having motherhood forced on them. Even if reproduction is seldom the main topic of these novels, there is an interesting discussion in them that problematises motherhood, individual desire vs. collective need and what it means to be a woman. Is it necessary to become a mother to fully be a woman, and is it desirable to have children in a post-apocalyptic world? In these novels, young women are not ready to sacrifice their free will and their bodies to replenish the human race.

Following the success of Suzanne Collins', *The Hunger Games*, dystopian novels have flooded young adult fiction and become very popular. In book after book, strong female protagonists struggle to survive after the world has collapsed. The post-apocalyptic world can vary. It could be a huge wasteland filled with mutant monsters and violent tribes, or a techno-city filled with modern and often terrifying technology, where people's lives are often highly supervised and controlled by a tyrannical government. Even though the visions of this dystopian future differ, one aspect of the future is constant, namely that a large part of humanity has died, been wiped out by war, plagues or natural disasters, or a combination of these, and there is often a need to make sure that humanity survives by the birth of a new generation. Collins' trilogy is just one example. Even though reproduction is not a main theme in the novel, the issue is still addressed. In *Mockinjay*, where Katniss finds herself in District 13, she not only finds revolutionaries

looking for more soldiers but also finds an older generation looking for 'breeders'.

> They need you. Me. They need us all. A while back, there was some sort of pox epidemic that killed a bunch of them and left a lot more infertile. New breeding stock. That's how they see us.[2]

Due to the emphasis on the need to replenish the human race, several of these dystopian novels discuss reproduction in different ways. In several novels the heroine faces the risk of being forced into becoming a kind of 'reproduction machine' to ensure the survival of our species - a fate that she always refuses to submit to. This does not mean that there are no young mothers in YA dystopian novels, but when the young protagonist becomes a mother, it is, at least in the books I have studied, always after having sex with a man she loves.

In this chapter several examples from YA dystopian novels are discussed in relation to the complex aspects of reproduction. The selection originates from a larger project of around 150 YA dystopian novels published between 2002-2022. The novels that most clearly discusses reproduction have been chosen for this chapter. These books often incorporate elements from different genres. There are several hybrids combining dystopia with dark fantasy or horror.[3] The element of romance is another important part of YA dystopia. That most of the YA dystopian novels discussed here can also be labelled as romance has been discussed before.[4] However, there has been less academic focus on how the romance elements work in these novels. What happens when these two completely different genres are combined? As the ingredient of romance is important in terms of whether the young heroine chooses to be a mother, I devote a section of the chapter to this particular discussion. The examples discussed are either British or American and, with a few exceptions, are narrated by a first-person female narrator.[5]

The chapter begins with a brief overview of the current research on reproduction in dystopian fiction. Here I say something about the relationship between YA dystopian fiction and the rich tradition of feminist science fiction. After giving several examples of how the young female protagonists resist being forced into becoming reproduction machines, I turn to how motherhood is made possible by discussing how these novels are not just dystopian, but also romance novels In order to understand why YA dystopian novels often have an ending filled we hope, however bleak and violent they might be, I argue that we need to look more closely at how they are

influenced by the romance element. I also discuss what this hope consists of. Is it hope for the survival of the human race? For a better world? Or is it just a happy ending for the heroine and her true love?

Dystopian mothers

Even though reproduction is an important theme in several of these books, it is seldom a dominant one. However, it is a theme that has often been studied. For example, Berit Åström not only focuses on the relationship between Katniss and her mother in *The Hunger Games* trilogy but also on how Katniss is portrayed as a mother in "Negotiating Motherhood in *The Hunger Games*".[6] In her article, Åström analyses the multilayered bond between mother and daughter, where Katniss often assumes the role of the active and strong one but where her mother also has a power that Katniss needs. The somewhat strained relationship between mother and daughter is a topic that I have discussed in two articles focusing on Collins' *The Hunger Games* trilogy and Meg Cabot's *Airhead* trilogy.[7] Rebelling against one's mother and her way of being a woman is a visible trait in these novels, and even if Cabot's series are more entrenched in postfeminism and ideas of "girl power", we can see evidence of this in Collins as well.

In all dystopian fiction, power structures are not only evident but also a vital part of the story, in that the protagonists either need to fight them or succumb to them. The power structures between adults and adolescents are especially important in YA dystopian fiction as the young characters struggle to survive in a world created by a previous generation. In her study *Mothers and Murderers. Adults' Oppression of Children and Adolescents in Young Adult Dystopian Literature*, Malin Alkestrand focuses on how the older generation often uses the younger to survive in a world that they themselves have destroyed. She not only discusses how teenagers in dystopian texts are often forced to become killers, but also analyses young mothers. Young mother are particularly interesting as they are often positioned as powerless adolescent mothers who are judged or taken advantage of by an older generation, yet who are also powerful in that they have power over their children.[8] Alkestrand's study is based on 101 titles and she discusses YA dystopian novels as a combination of several different genres, such as the adventure novel, the bildungsroman, the romance novel and fantasy.[9]

Mary E. Theis discusses the relationship between mothers and their

offspring in *Mothers and Masters in Contemporary Utopian and Dystopian Literature* and, amongst other things, analyses how the rights and needs of the individual are accentuated in the novel.[10] In *Reproductive Reproduction: Intersectional Maternity in Young Adult Dystopian Fiction*, Meghan Gilbert-Hickey argues that how motherhood is visualised in YA dystopia is strongly linked to the dominance of white, heterosexual and middle-class characters.[11] She also discusses how these books present a multi-layered image of femininity.

> If the reader sees, in these books' protagonists, empowered female intersectionality, however, she soon realizes it is merely a surface representation. For she discovers a drastically different message regarding maternity and the confines within which women operate once they become mothers. Motherhood, in these texts, is presented as an imperative. Very few adult women escape that normative role.[12]

How we can understand the young main protagonist's 'escape' from motherhood is something that I address later on in the chapter. With Alkestrand's book as one exception, the previous studies on reproduction in YA dystopias have been focused on one or two novels at a time. In lieu with Alkestrand, I have worked with a large corpus of over a hundred books and have been able to see recurring patterns in a way that is impossible when focusing on a few novels.

From feminist utopia to YA dystopia

> Science fiction is all about looking at the universe from different perspectives, about breaking down barriers and considering alternate possibilities [...] SF is about toppling stereotypes and considering alternative futures. It's a genre that by its very nature is open to new ideas, to change.[13]

Science fiction has been used for decades to discuss and critique how we do gender. In order to understand the themes in modern YA dystopian novels we need to look at the fertile ground in which they have grown. There is a substantial amount of research on YA dystopian fiction, most of which consists of articles discussing a few selected works.[14] This might be one reason why the "roots" of YA dystopian novels are seldom more than hinted at. These books do not exist in a vacuum but are both influenced by women's fiction from the 1970s, with writers such as Erica Jong

and Marilyn French writing about female sexuality, desire, and, of course, pregnancy, and by feminist science fiction and dystopian fiction in general.

It is relatively easy to find traces of previous utopian and dystopian texts in the novels discussed in this chapter. We can see traits from early feminist utopian novels like Mary E. Bradley Lane's *Mizora* (1890) and Charlotte Perkins Gilman's Herland (1915), both of which make use of utopian vision to argue for women's rights.[15] There are important visible traces in 'classic' dystopian novels like Ray Bradbury's *Fahrenheit 451* (1953) and George Orwell's *1984* (1948). But there are also themes and traits from classic horror, from Mary Shelley's *Frankenstein; or The Modern Prometheus* (1818) to Stephen King's Dark Tower novels. Naturally, there are also traces of feminist science fiction from the 1970s-1980s, with authors like Ursula K. LeGuin, Tanith Lee, and Marge Piercy, even if these are seldom clearly visible in the books I have studied. A few novels are often mentioned directly in the YA dystopian novels discussed here Ray Bradbury's *Fahrenheit 451* is one of these, and a recurring intertext is Lois Lowry's *The Giver* (1993), which among other things discusses reproduction. In this novel, as in so many other, the reproductive "work" women are encouraged to do, are said to be important, but has low prestige.[16] As in so many examples from both feminist science fiction from the 1970s and today's YA dystopian fiction, they are seldom seen as heroes but rather as tools.

For a long time reproduction has been a recurring theme in feminist science fiction.[17] Jane Donawerth argues in *Frankenstein's Daughters* that one of the reasons why Mary Shelley's novel is one of the first feminist science fiction novels is that it focuses on reproduction. The genre offers a playground to experiment with technology, conceptions of the female body and our means to procreate.[18]

We often see the 1970s and 1980s as something of a "golden age" of feminist science fiction, although the genre lives on even today. In 2018 Anne Charnock received the A.C. Clarke reward for her novel *Dreams Before the Start of Time*, which focuses on reproduction and how our concept of what a family experiences changes when new technologies emerge. The novel discusses a variety of possibilities. In one chapter, a character adopts an orphan who is left to gestate in an artificial womb. In another, a man creates a daughter using only his DNA. When asked why Charnock's novel was chosen, award director Tom Hunter said that it was an example of "science-literate fiction that embraces the challenge of humanizing big ethical questions".[19] Reproduction has been and still is a subject that challenges

us. Science fiction/fantastic fiction has for a long time provided an arena for discussing different modes of reproduction and how they affect the power dynamics in a society, as well as whether humanity should be saved.

Reproduction has also long been an important question for feminism. In an article on Swedish fantasy and science fiction/fantasy writer Karin Tidbeck, Emma Tornborg argues that speculative fiction, such as dystopian fiction, has been and still is an excellent way of problematising and discussing the norms and ideals of parenthood in general and motherhood in particular.[20] One reason is of course the genre's possibility to explore a kind of technology that has not yet arrived but is coming. Barr wrote in 1993: "When feminist science fiction turns its attention to reproductive technology, the differences between fiction and fact become indistinct."[21] The question is, can new machines be an answer to the repopulation of the planet, and if so, what will that mean for our young heroines? Finding new ways of reproducing has been part of the women's movement. Shulamith Firestone argues in the classic *The Dialectic of Sex* from 1970 that reproduction is the main reason for women's subordination. She states that "[t]he freeing of women from the tyranny of reproduction by every means possible" is the only way that an equal society can be achieved. [22] However, in most of the YA dystopian novels that I have studied, technology never provides an answer but rather makes everything worse. In Lauren Destefano's trilogy (which I discuss later on), an attempt to perfect the human race leads to the creation of a virus that could ultimately annihilate it and lead to young women being kidnapped and forced into marriage and childbearing. In Jessica Khoury's *Origin* (2012)[23], Pia is a genetic experiment and told that she is the future of humanity. But when she discovers that dozens of lives have been sacrificed to make her, and that she would be forced to continue taking lives to make similar perfect beings, she refuses. I have yet to find a novel in which reproductive technology is presented as something positive, as a way of not just repopulating the planet but also improving women's lives.

One of the most recurring intertexts in several of the novels discussed in this chapter is one that deals with reproduction and the lengths to which a society might go to replenish the human race, namely Margaret Atwood's *The Handmaid's Tale* (1985). Sarah Hentges argues that Atwood's text is a clear template for many YA dystopian novels that take up the subject of compulsory reproduction and the enslavement of women for the purpose of reproduction.[24]

I agree with Hentges that Atwood's novel has had an important impact

on several YA dystopian novel authors. Sometimes this impact is clearly illustrated, as in Alaya Dawn Johnson's *The Summer Prince* (2013), where the society located in Brazil is run by older women called 'aunties' and the heroine June actually reads Atwood's novel at school.[25] In most books the connection to Atwood's novel is more subtle, but still easily seen. I will return to Atwood's novel later in the chapter and discuss the YA novels in dialogue with it.

Reproduction machine

In trying to save the human race young women are repeatedly and in a variety of ways abused in YA dystopian fiction. In Ann Carey's *Eve*, the heroine initially thinks that she is being given an education so that one day she will travel to one of the few remaining cities and have a bright future. She lives in an all-female world and is told that men are manipulative and evil, the only exception being the almighty leader of the world. Eve has never had to think about her future: "Ever since I was small, I have been told there was a plan for me – a plan for all of us. Complete twelve years at school, then move across the compound to learn a trade for four years. Then onto the City of Sand, where life and freedom awaited us."[26] Eve soon discovers that adults have lied to her, which is a recurring theme in many young adult novels. The truth is brutal:

> There would be no trade, no city, no apartment with a queen-sized bed and a window overlooking the street. No eating at the restaurants with the polished silverware and crisp, white linen cloths. There would only be that room, the putrid stink of old bed pans, skin stretched until it cracked. There would only be babies cut out of my womb, ripped from my arms and shuffled somewhere beyond these walls. I'd be left screaming, bleeding, alone and then plunged back into a dreamless, drug induced sleep.[27]

The girls are kept quiet and happy with dreams of a future until they reach child-bearing age, after which they are chained to a bed, repeatedly inseminated and forced to have child after child. Eve manages to escape this fate in the first book by fleeing before she is forcibly inseminated.

In Emily McKay's *The Farm* (2012), the world is overrun by 'tics' - vampire-like beings that are in constant need of food. The heroine Lily lives in a prison camp where she is forced to donate blood on a regular basis. She knows that when she turns eighteen she will disappear, probably never to be seen again. One way of living a little bit longer is to become a breeder: "As

always, Breeders lounged around the edges of the quad, smugly serene, some of them displaying bellies already found and fertile. They didn't have to worry about eighteenth birthdays".[28] But being a breeder comes with a price. The young men in the camp are encouraged to rape these young women as often as they can to get them pregnant. In all likelihood, the children they give birth to will be turned into food for the 'tics'. Even if a breeder lives beyond their eighteenth birthday, they will not reach old age, as giving birth is very dangerous as there are no midwives or doctors to help if anything goes wrong. At the beginning of the novel, Lily has no empathy with girls who choose to become breeders and, in many ways, sees them as enemies, or at least collaborators.

> She'd gotten pregnant on purpose. She was trading her life of her unborn baby for a few more months of her own life. The idea as so revolting I couldn't even think about it. The Breeders were the very worst of what was left of humanity.[29]

However, as the novel progresses and Lily befriends a breeder, she becomes more understanding of other people's choices.

A third example of how the heroines of YA dystopian fiction are threatened by slavery, rape and forced motherhood comes from Lauren DeStefano's *Wither* (2011). In trying to perfect mankind, a technology has been developed that makes 'perfect' children who never get sick and never age. Unfortunately, this technology also creates a virus that kills all girls at the age of 20. Boys survive until they are 25. The heroine, Rhine, is kidnapped at the beginning of the book and forced into a polygamist marriage, as every young girl must bear as many children as possible before she dies.

> The girls are taken as young as thirteen, when their bodies are mature enough to bear children, and the virus claims every female of our generation by twenty. Our hips are measured to determine strength, our lips are pried apart so the men can judge our health by our teeth.[30]

Rhine is married off to Linden, who is already expecting a child with one of his other wives, but at the end of the first book escapes.

In all these examples the heroine is sometimes threatened with rape yet always manages to elude this fate. In the novels we meet several young women who are not so lucky but who are never the main protagonists. It is interesting to note that even if these novels are often very violent and at times contain explicit torture scenes, in only two of the books from my selec-

tion of over a hundred novels is the heroine raped. This may be explained by the genre, in that these books are aimed at younger readers - teenagers and young adults - and rape is a controversial subject in children's and young adult fiction.

An important theme in Atwood's rich novel is how Offred is reduced to a fertile body. That is all that Gilead wants her to be - a fertile and obedient body: "I avoid looking down at my body, not so much because it's shameful or immodest but because I don't want to see it. I don't want to look at something that determines me so completely."[31] In Bick's *Ashes*, DeStefano's *Wither* and Carey's *Eve*, the heroine is faced with a future in which she too will be reduced to 'a fertile body', but is given the opportunity to refuse, run away, fight back and, eventually, find true love and sex on equal terms. In "Docile Bodies, Dangerous Bodies: Sexual Awakening and Social Resistance in Young Adult Dystopian Novels", Sara K. Day argues that these novels often portray sexuality as something dangerous, although they also include a description of how the heroine discovers sex and that this can be empowering.

> Being able to recognize and, more importantly, freely act upon desires that are simultaneously codes that welcome and dangerous ostensibly allows young women the possibility of experiencing their bodies in new and empowering ways.[32]

When choosing her own partner the dystopian heroine not only has sex, but sex that heals and empowers her.[33] This should be read in contrast to the frequent scenes in which the heroines are threatened by rape. As sex is often used as a weapon to scare/break or impregnate them against their will, several YA dystopian heroines are both frightened by men's sexuality and hesitant to explore their own. But when they fall in love with a young man all this changes. There are female protagonists who not only have sex but are empowered by it, and there are protagonists who (with a few exceptions) have sex if they are deeply in love.

My body – my choice

The three previous examples are all about how young women are forced into becoming mothers and how this, in both DeStefano's and McKay's novels, could lead to rape and ultimately death, a fate the heroines manage to avoid. Young adult literature often discusses choice and control,

whereas in dystopian novels this control is often exaggerated. The societies that the protagonists live in not only control their education or their curfew, but also, for example, who their boyfriend will be.[34] With few exceptions, these young heroines fight back. They refuse to submit and instead rebel and express their disgust with the choices presented to them. In Ilsa J. Bick's *Ashes* (2011), an electromagnetic pulse transforms almost every young person into a savage cannibal. Alex, who at the beginning of the novel suffers from a brain tumour and is expected to die, is cured by the pulse and becomes one of the few young people to not be turned into something similar to a zombie. When stumbling upon a village run by old men who have suffered from Alzheimer's but who are now cured and are almost delirious with their newfound strength and virility, she discovers that they have a way of repopulating the planet (or rather, keeping the young cannibals fed by entering into an alliance with them). They simply lock a young woman and a man together in a house, make them a couple and encourage the man to impregnate the woman. The children that are born then have a dual purpose. Some will repopulate the village and some will be offered to the young cannibals as food. Alex refuses to participate: "She didn't want to be given away. And making babies? She couldn't think about that without her skin getting all crawly."[35] In the end she manages to run away and escape this fate.

There are very few novels in my selection in which the heroine does not escape and finds some semblance of a happy ending, although they do exist. One is Louise O'Neill's *Only Ever Yours* (2014).[36] In this future, women are 'grown' in a laboratory and raised to be servants. Every woman is forced by the state to become a companion (which means that they are married off to young men, expected to have as many children as they can and then be terminated at the age of forty), a concubine (which means living for a shorter time in a brothel and being always ready and willing for sex), or a chastity (the women who look after girls until they reach a certain age). The young women, whose names are always written in lower case letters in the text, are manipulated into being constantly frightened, seeking validation and admiring men, so that they can, for example, long for a husband who beats them. Even if the heroine freida does try to find love, wants to be a companion and enjoys the short life granted to her, she fails and ends up being cut into pieces in a laboratory in order to perfect the process of making these women. O'Neill's novel stands out from other YA novel as it lacks the usual hopeful ending. In this novel, the depicted society seems impos-

sible to change and the future for all women looks extremely bleak. The trait that a society is impossible or at least very difficult to change is a recurring one in YA dystopian novels, but in most examples from my corpus the tragic end from O'Neill's novel is avoided.

The most dominant theme in YA literature is that the heroine refuses to submit to the demands made on her body by the society in which she lives and that she can escape. The 'lesson' that keeps repeating itself is the importance of individual choice; a 'lesson' that is hardly new. When discussing utopian and dystopian novels from the beginning of the twentieth century and onwards, Mary E. Theis argues that: "[...] twentieth century utopian and dystopian writers insist that individuals should not be made to conform; the evolutionary advantage that our species has achieved through voluntary cooperation must not be lost".[37] The freedom to choose for herself is one of the main goals of the dystopian heroine. In demanding that they must have the right to choose a 'mate' for themselves and decide whether they want to have children or not, these heroines rebel against the totalitarian society in which they live.[38] Two different traits are visible in this. One comes from the popular romance genre in which the female protagonist's right to choose is key, and one is, of course, heavily influenced from popular feminism and its focus on empowerment.[39]

The freedom to choose is somewhat complicated, though. In Amy Ewing's *The White Rose* (2015), the second book in the Lone City trilogy, we meet a young woman who chooses to comply rather than rebel. This is one example of a hybrid text that combines dystopian elements with dark fantasy and horror. The heroine Violet comes from a poor family and is sold as a slave to the ruling class that cannot reproduce on its own. The fact that having a baby will kill these young women slaves is kept secret. The first book is a rather macabre blend of horrible gynaecology exams, where Violet's new owner, a rich duchess, enjoys torturing Violet as much as she can. There is also a romance story (a surprising part of the plot twist to the story is that the hero is also a slave and has been forced into prostitution). In the second book, *The White Rose*, Violet manages to escape with a few friends and is horrified when one of them, who is pregnant, refuses to terminate the pregnancy.

> 'Am I not allowed the same choice? Can I not have the same freedom you have? To choose what I want. Choice is freedom, Violet.' I shake my head. 'You're twisting it all up. You don't get to choose to die'.[40]

Sacrificing yourself in order to give life to a child is rare amongst the

protagonists in YA dystopian novels but can be seen in novels aimed for an older audience. In Jane Roger's *The Testament of Jessie Lamb* (2012)[41], which won the Arthur C. Clarke award in 2012, women no longer survive pregnancies and few babies are born. The government launches a programme in which young women are called to be 'Thornroses', impregnated with embryos and put into a coma until the babies are born – at which point the woman dies. Jessie decides that this is what she wants to do and must fight for her choice when her desperate father tries to stop her. It is a story about a rebellion that ultimately leads to death, as Jessie finally manages to escape from her father and arrive at the hospital. It is important to note that Roger's novel is not labelled YA, and one of the reasons for the ultimately bleak ending where the young girl dies could possibly be explained by that.

Two main themes from Atwood's novel frequently return in YA dystopian novels. One is the idea that we can get 'used to' oppression, that it can become commonplace and that to survive we might be forced to fall into line: "Ordinary, said Aunt Lydia, is what you are used to. This may not seem ordinary to you now, but after a time it will. It will become ordinary."[42] In YA dystopian novels we meet heroines who very often go from realising that they are subjected to more control than they previously understood, start to refuse to submit to society's rules and end up rebelling and fighting against control. And their rebellion does change the societies in which they live, at least to some degree. In these novels, being compliant is often seen as almost a cardinal sin. In comparison to Offred, the young protagonists in YA dystopian novels are given the opportunity to rebel. These young heroines have a choice and can escape the fate of becoming reproductive machines.

YA dystopia as romance

The fact that most of the YA dystopian novels discussed here can also be labelled as romance has been discussed before. Connecting YA dystopian novels to romance does not simply mean that we have a love story (which is often a love triangle), but also, and more importantly, that in these rather dark novels there is a ray of hope. One of the main building blocks in popular romance is the promise of a HEA-ending, a "happily ever after" where the heroine's and hero's struggles will be rewarded.[43] In Romance Writers of America's definition of the genre, the fact that the heroine must reach a happy ending is stressed:

> An Emotionally Satisfying and Optimistic Ending – Romance novels end in a way that makes the reader feel good. Romance novels are based on the idea of an innate emotional justice – the notion that good people in the world are rewarded and evil people are punished. In a romance, the lovers who risk and struggle for each other and their relationship are rewarded with emotional justice and unconditional love.[44]

The love story is often an important part of the novel. In YA dystopian novels the heroine not only fights unjust leaders, wrestles with mutants and zombies, realises that most adults are corrupt and so on, but also falls in love. One way of understanding the romance ingredient in YA dystopian novels is to read it as a way of introducing hope. As the heroine often loses her faith in humanity, falling in love restores at least part of it.

The YA novels discussed here often describe a kind of 'supersized' patriarchy, where women are prey. A recurrent theme is that when a disaster occurs and resources become scarce, humanity will revert to what is seen as a "previous" stage, where fighting for your own survival is all that guides you.[45] The heroines often live in societies in which their bodies are seen as the 'property' of men or as a 'means to an end', namely having children. There is no respect for their rights and very little compassion. Sexual violence is part of these societies, which makes the romance aspect of these books both interesting and problematic. The young man with whom the heroine falls in love (in most cases the books are heteronormative with a few exceptions) is often situated outside the patriarchal society and is a man who would never see the heroine as prey. There is an interesting resemblance here to modern historical popular romances that often depict a patriarchal society that severely limits the heroine's right. A happy ending is achieved when she meets a different kind of man; someone who will not abuse his position and who will help her to achieve her goals and at the same time protect her.[46] But are there HEA-endings in these novels? We have strong rebellious heroines who refuse to submit to tyrannical regimes, battle against oppression and often succeed in changing society – up to a point. Patricia Kennon argues that:

> In this genre, optimistic possibilities for emancipatory agency seem intertwined with pessimistic acknowledgments of the limitations for the transformations of society and relationships between generations.[47]

If we take Katniss as an example, she does manage to change society and rid it of two tyrants yet fails to save her sister and the ending is bit-

tersweet. It takes years before she can believe in a future and dare to have children with Peeta. Åström argues in her reading that motherhood is forced on Katniss.[48] It is Peeta's choice and not hers, which makes the end of the final novels as bleak as those of Rogers.

So, how can we understand the romance in these novels and how is it connected to reproduction? Lauren Penny says: "The new teen dystopias are profoundly romantic, full of doomed crushes and broody heroes in tight athletic suits, but they resist portraying love as the answer to the heroine's problems."[49] In one sense I agree with Penny that love does not save the day or crush tyrants. However, in dystopian novels aimed at younger readers, love becomes the answer, the reward we might say, that enables a happy ending and gives hope. Love is portrayed as something that heals the heroine after her struggles, and that where there is love there might be children.

In the YA dystopias I have studied there are few mothers, and those who become mothers do so with partners of their own choosing.[50] An interesting example of how love is needed to reproduce is visible in Moira Young's Dustland series, which take place in a post-apocalyptic landscape that echoes the Mad Max franchise.[51] Here, the planet has been more or less destroyed after centuries of pollution, mutant creatures have appeared and mankind is struggling. The heroine, Saba, leaves home to save her brother, fights the tyrant De Malo and meets Jack. De Malo is one of many patriarchal leaders who organises people into distinct groups and brands their foreheads. Women can be whores, breeders or midwives. As the breeders are repeatably raped and forced to have child after child, the midwives are there to keep them in line and take the babies as soon as they are weaned: "Midwives hate their slavery, they hate what they're doing…".[52]

Saba's project to save her brother becomes complicated and her relationship with Jack sours when she thinks that he has betrayed her. She chooses to have sex with De Malo even if she is on many levels repelled by him, becomes pregnant but miscarries, which might seem like a minor detail, although it carries quite a lot of weight in the story De Malo is the wrong man for her and Jack is her soulmate. Everyone who reads popular romance will realise that children will only arrive in a relationship that is based on true love, as this is one of the most common tropes in the romance genre. At the end of the trilogy, after De Malo has been killed, Saba leaves with Jack. She therefore gets her happy ending. However, whether she will choose to have children or not is kept from the reader.

Another example of how romantic love makes motherhood something

the heroine chooses is Kim Ligget's *The Grace Year* (2020). Tierney doesn't want to be married off, even if her position in the society in which she lives will be difficult if she is unmarried.

> Being married off isn't a privilege to me. There's no freedom in comfort. They're padded shackles, to be sure, but shackles, nonetheless. At least in the labour house my life will belong to me. My body will belong to me.[53]

In the novel all young girls must live secluded in a forest camp, because this society believes that they have "dangerous powers" that must be quelled before they can marry. During this time the girls drink from a polluted well and many succumb to hallucinations. They are also hunted by men outside the encampment who think the young girls are monsters and who not only kill them but also mutilate their bodies and sell the body parts because they are believed to have magic properties. Tierney meets the hunter Ryker and falls in love with him. They do not have a happy ending as he is killed, but Tierney is pregnant and the novel ends with her giving birth to a daughter who will continue the fight against the oppression of women.

The recurring theme in the YA dystopian novels that I have studied is that the heroine only becomes a mother after having sex with a man she loves. The idea of putting a collective need for more children over her own desire is never an issue in these novels.

Conclusion: A Dystopian Happily Ever After Ending?

In "The Feminist Dystopia of the 1990s. Record of Failure, Midwife of Hope", Jane Donawerth argues that feminist dystopian novels of this that decade not only portrayed a nightmarish world in which women had to fight to survive but also included an almost utopian ingredient: "The feminist dystopia of the 1990s is like Pandora's box: the last thing to emerge is hope. These novels make dystopia a place of birth."[54] In novels by, for example, Ursula K. LeGuin and Marge Piercy, there is always, according to Donawerth, the possibility of another world emerging based on gender equality and respect. The nightmare worlds that are portrayed are never seen as deterministic but as changeable. How does this transfer to the dystopian worlds portrayed in YA fiction?

As mentioned previously, the patriarchal society is often described as "super-sized", hyperbolic and surprisingly dark, as this is YA fiction. Repro-

duction is often a nightmare for the young heroine; a threat that she fights against as it is connected to giving up control of her body and, very often, her life. Only when reproduction is coupled with true love and a partner of the heroine's choice does motherhood become a possibility. Romance enables hope. But the dystopian world is still there. At the end of the novel the world might seem a slightly better place. The young heroines may have had victories, and battles may have been won, but not the war.

In their introduction to *Female Rebellion in Young Adult Dystopian Fiction*, Day, Green-Barteet and Monzt argue that: "Even as these young women actively resist and rebel, then, they also tend to accept that they cannot change every aspect of their societies' controlling frameworks."[55] Most heroines make a difference. They help to topple tyrants and put an end to "hunger games". However, several heroines choose not to try and build a better world but instead leave it behind and choose a quiet life with the man they love. The 'romantic' ending can be seen as both hopeful and happy. There is an "escape hatch" that the romantic element provides, but this escape is for the individual.

In one way, the YA dystopian novel can be read as "darker" than the feminist dystopian novels from previous decades. In the older novels, it is not uncommon for there to be a possibility of a different world based on equality and respect, even if the road to that world is long. In YA dystopian novels this road seems even longer, perhaps because the focus in the end is on the individual's own happy ending.

[1] Berit Åström. "Negotiating Motherhood in *The Hunger Games*". In *Handmaids, Tributes and Carers: Dystopian Females' Roles and Goals*. Myrna Santos (ed.), Cambridge: Cambridge Scholars Publishers 2018, p. 10.

[2] Suzanne Collins. *Mockingjay*. New York: Scholastic. 2010, p. 9.

[3] See for example Sue Corbett. "What's new in YA? Mash-Ups." In *Publishers Weekly*. October 1, 2012, p. 24 – 31. See also Jane Donawerth. "Genre Blending and Critical Dystopia." In *Dark Horizons. Science Fiction and the Dystopian Imagination*. Raffaella Baccolini & Tom Moylan (ed). New York/London: Routledge, 2003, pp. 29–46, for a discussion about how this kind of genre blending is no new phenomenon.

[4] See for example Katherine R. Broad. "'The Dandelion in the Spring'. Utopia as Romance in Suzanne Collin's The Hunger Games Trilogy." In *Contemporary Dystopian Fiction for Young Adults. Brave New Teenagers*. Balaka Basu, Katherine R. Broad & Carrie Hinz (ed.) pp. 117–130. New York/London: Routledge, 2012.

[5] Kim Wilkins argues in *Young Adult Fantasy Fiction. Conventions, Originality, Reproducibility*. Cambridge: Cambridge University Press 2019 that YA literature differs from literature aimed at an older audience and has the following characteristics: "First, the page extent of the books is generally, though by no means always, shorter than that of most adult books excluding literary fiction and category romance, and the font is sometimes larger. These aspects of the text indicate that the word length is shorter and, by extension, the plot less likely to be complicated by subplots and proliferating viewpoint characters. Second, young adult books also regularly sell at a different price point from adult books [...] Perhaps most significantly, though, YA is recognisable as YA because its narratives are focalised overwhelmingly through teenage protagonists", pp. 6–7.

[6] Åström. "Negotiating Motherhood in *The Hunger Games*", pp. 11–17.

[7] Maria Nilson. "Att flicka sig. Hur flickor gör genus i chick lit och teen noir." In *Flicktion. Perspektiv på flickan i fiktionen*, Eva Söderberg, Mia Österlund & Bodil Formark (ed.) pp. 191–207. Malmö: Universus Academic Press, 2013, and Maria Nilson. "'I am Girl. Hear Me Roar'. Girl Power and Postfeminism in Chick lit jr. Novels." In *Academic Quarter*, Men and Women, Volume 8, Summer 2014 (online publication).

[8] Malin Alkestrand. *Mothers and Monsters in Young Adult Dystopian Fiction. Adults' Oppression of Children and Adolescents in Young Adult Literature*. Stockholm/Göteborg: Makadam Förlag 2021, p. 163.

[9] Alkestrand. *Mothers and Monsters in Young Adult Dystopian Fiction*, pp. 29–30.

[10] Mary E. Theis. *Mothers and Masters in Contemporary Utopian and Dystopian Literature*. Bristol: Peter Lang Publishing, 2009.

[11] Meghan Gilbert-Hickey. *Reproductive Reproduction: Intersectional Maternity in Young Adult Dystopian Fiction*. New York: St. John's University, 2016.

[12] Gilbert-Hickey. *Reproductive Reproduction: Intersectional Maternity in Young Adult Dystopian Fiction*. p. 173.

[13] Connie Willis. "Introduction". In: *A Woman's Liberation. A Choice of Futures By and About Women*. Connie Willis & Sheila Williams (ed). New York: Warner Books 2001, pp. xi–xii.

[14] See Alkestrand. *Mothers and Monsters in Young Adult Dystopian Fiction*, pp. 48–49.

[15] See Sylvia Määttä. *Kön och evolution. Charlotte Perkins Gilmans feministiska utopier 1911–1916*. Nora: Nya Doxa 1997, p. 17 and Joanna Russ. *To Write Like a Woman. Essays in Feminism and Science Fiction*. Bloomington: Indiana University Press 1995, p. 11.

[16] Lois Lowry. *The Giver*. Boston: Houghton Mifflin Harcourt 1993, p. 48.

[17] Jenny Bonnevier. *Estranging Cognition. Feminist Science Fiction and the Borders of Reason*. Uppsala: Uppsala Universitet, 2005, Chapter 3. See also Jane Donawerth. "Illicit Reproduction: Claire Winger Harris's 'The Fate of Poseidana'", *Daughters of Earth. Feminist Science Fiction in the Twentieth Century*. Justine Larbalestier(ed.) Middleton: Weslyan University Press, 2006, pp. 20–35.

[18] Jane Donawerth. *Frankenstein's Daughters. Women Writing Science Fiction*. New York: Syracuse University Press 1997.

[19] Sian Cain. 2018. "A.C. Clarke Reward Goes to 'Classic' Novel that explores the Limits of Pregnancy." In *The Guardian* 18/7. [Accessed: 191214].

[20] Emma Tornborg. "Moderskapets makt och maktlöshet." In *Feministisk fantastik – en lästlustbok*. Maria Nilson, Helene Ehriander & Emma Tornborg, pp. 123–136. Lund: BTJ Förlag, 2017.

[21] Marleen S. Barr. *Lost in Space. Probing Feminist Science Fiction and Beyond.* Chapel Hill: The University of North Caroline Press 1993, p. 82.

[22] Shulamith Firestone. *The Dialectic of Sex: The Case for Feminist Revolution*. New York: Women's Press, 1979, pp. 221–222.

[23] Jessica Khoury. *Origin*. New York: Razorbill 2012.

[24] Sarah Hentges. *Girls on Fire. Transformative Heroines in Young Adult Dystopian Literature*. Jefferson: MacFarland 2018, p. 33.

[25] Alaya Dawn Johnson. *The Summer Prince*. New York: Scholastic Inc. 2013, p. 211.

[26] Ann Carey. *Eve*. New York: Harper 2011, pp. 14–15.

[27] Carey. *Eve*, pp. 23–24.

[28] Emily McKay. *The Farm*. New York/London: Penguin 2012, p. 6.

[29] McKay. *The Farm*, p. 214.

[30] Lauren DeStefano. *Wither*. New York/London: HarperCollins 2011, p. 2.

[31] DeStefano, *Wither*. p. 63.

[32] Sara K. Day. "Docile Bodies, Dangerous Bodies: Sexual Awakening and Social Resistance in Young Adult Dystopian Novels". In *Female Rebellion in Young Adult Dystopian Fiction*, Sarah, K. Day, Miranda A. Green-Barteet & Amy L. Montz (ed.), New York: Ashgate/ Farnham, 2014, p. 79.

[33] Bryan Gillis & Joanna Simpson. *Sexual Content in Young Adult Literature. Reading between the Sheets*, Rowan & Littlefield, 2015, p. 76.

[34] In Lauren Olivier's *Delirium* (2011) love is seen as a disease. There is a cure for it that also dampens other emotions like aggression and fear. Every young person is evaluated before the forced treatment. The heroine, Lena, perceives this evaluation, where a group of scientists will observe and criticise her more or less naked body, as a violation. Despite this she submits. Even if the main goal is to 'cure' emotions like love, the experts also find a suitable mate for each young person. There is a similar theme in Allie Condie's Matched (2010), where the heroine is matched by the government to a young man and expected to marry him. In both Olivier's and Condie's trilogies, the heroine escapes with the help of a young man, a rebel, with whom she falls in love, thus choosing her own mate.

[35] Ilsa J. Bick. *Ashes*. London: Quercus, 2011, p. 369.

[36] Louise O'Neill. *Only Ever Yours*. London: riverrun 2014.

[37] Theis. *Mothers and Masters in Contemporary Utopian and Dystopian Literature*, p. 4.

[38] Theis. *Mothers and Masters in Contemporary Utopian and Dystopian Literature*, pp. 88–89.

[39] Sarah Banet- Weiser. *Empowered. Popular Feminism and Popular Misogyni*. Duke University Press 2018, p. 95–128.

[40] Amy Ewing. *The White Rose*. New York: HarperTeen 2015, p. 80.

[41] Jane Rogers. *The Testament of Jessie Lamb*. New York: Harper Perennial, 2012.

[42] Margaret Atwood. *The Handmaid's Tale*. New York: Anchor Books 1998, p. 32.

[43] Pamela Regis. *A Natural History of the Romance Novel*. Philadelphia: University of Pennsylvania Press, 2003, p. 9.

[44] Barbara Fuchs. *Romance*. New York/London: Routledge, 2004, pp. 124–125.

[45] Maria Nilson. "Demokrati och dystopi. Om människosyn i moderna ungdomsromaner." *Unga läser. Läsning, normer och demokrati*. Åsa Hedenmark & Maria Karlsson (ed). Stockholm: Gidlunds Förlag, 2017.

[46] Charlotte Roach. "Getting a Good Man to Love: Popular Romance Fiction and the Problem of Patriarchy." In *Journal of Popular Romance Studies* 2010, online publication.

[47] Patricia Kennon. "'Belonging' in Young Adult Dystopian Fiction: New Communities Created by Children." In *Explorations in Children's Literature*, 2005, vol. 15, no. 2, p. 40.

[48] Åström. "Negotiating Motherhood in The Hunger Games." p. 13.

[49] Laurie Penny. "No Wonder Teens Love Stories about Dystopian Futures – They Feel like They're Heading for One." In *New Statesman*, 28 March – 3 April 2014. [Accessed: 180625].

[50] Malin Alkestrand comes to the same conclusion in *Mothers and Murderers* where her three main examples of young dystopian mothers, all become pregnant after having sex with a young man they have feelings for, p. 179.

[51] For a discussion about this trilogy see Sonya Sawyer Fritz, "Girl Power and Girl Activism in the Fiction of Suzanne Collins, Scott Westerfeld and Moira Young." In *Female Rebellion in Young Adult Dystopian Fiction*, Sarah, K. Day, Miranda A. Green-Barteet & Amy L. Montz (ed.) pp. 17–31. New York: Ashgate/Farnham, 2014.

[52] Moira Young. *Dustlands. Raging Star*. New York: Margaret K. McElderry Books 2014, p. 234.

[53] Kim Ligget. *The Grace Year*. New York: Del Rey 2020, p. 10.

[54] Jane Donawerth. "The Feminist Dystopia of the 1990s: Record of Failure, Midwife of Hope". In: *Future Females, The Next Generation. New Voices and Velocities in Feminist Science Fiction Criticism*. Marleen S. Barr (ed.) London/New York: Rowan & Littlefield Publishers 2000, p. 62.

[55] Sarah K. Day, Miranda A. Green-Barteet & Amy L. Montz. "Introduction." In *Female Rebellion in Young Adult Dystopian Fiction*, Sarah, K. Day, Miranda A. Green-Barteet & Amy L. Montz (eds). London: Ashgate/Farnham, 2014, p. 4.

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Marinette Grimbeek

Girls Making Families: Agential Assemblage in Nnedi Okorafor's Speculative Fiction

A girl or young woman facing new or dangerous challenges without the support of a family is a recurring motif in the multiple award-winning speculative fiction by Naijamerican (Nigerian American) author Nnedi Okorafor. Her work is distinctly and unapologetically Afrocentric and refuses to conform to generic expectations. Here, science and magic exuberantly coexist, and although important non-English words or ideas are usually explained, the Western reader is not necessarily accommodated through the choice of setting, plot, or character names. The author herself prefers the descriptor *Africanfuturism* to the more established *Afrofuturism* – and similarly *Africanjujuism* to fantasy – precisely because her fiction "is specifically and more directly rooted in African culture, history, mythology and point-of-view as it then branches into the Black Diaspora, and it does not privilege or center the West" – something she argues Afrofuturism inevitably does.[1]

Although the future African cultures depicted by Okorafor are highly sophisticated, they often remain steeped in tradition, both to the benefit and detriment of the various protagonists; family ties, genealogies and tribal allegiances are frequently shown to be key to individual identities in Okorafor's fiction. At the start of *Binti* (2015), for example, the eponymous sixteen-year-old protagonist is the first member of the Himba tribe to be admitted to the intergalactic Oomza University. Against her family's wishes, she leaves home in the dead of night to travel there by an organic Miri spaceship. During the journey, the ship is violently attacked by the alien jellyfish-like Meduse and she is the only surviving passenger. Binti's *edan*,

an obsolete and otherwise useless technological object, enables her to resist the Meduse attack and communicate with them. On landing, she negotiates the safe return of the Meduse chief's stinger, captured in a war and kept as a museum specimen by the university, thus laying the foundation for renewed peace between the Meduse and humanity. Binti undergoes a partial physical transformation as her tribal braids morph into blue Meduse-like tentacles. Okwa, one of the Meduse, decides to stay at the university, and by the end of the trilogy, after an eventful journey back to Binti's homeland and their subsequent return to Oomza, both Okwu and the Miri spaceship New Fish are bound to Binti. As a doctor explains to her: "You're paired with New Fish and Okwu, each of whom has a family. Your family is bigger than any Himba girl's ever was."[2] Binti thus not only re-establishes the bonds with her human family, including with a previously ostracised branch, but also forms a new family that includes nonhumans.

This chapter examines the kinmaking strategies of four of Okorafor's protagonists to show how they form such cross-culture and cross-species kinships. To some extent, all the texts under discussion here could be classified as coming-of-age stories, in which *assembled families* complement and often replace *biological families*. Binti, Onyesonwu (*Who Fears Death*, 2010), Phoenix (*The Book of Phoenix*, 2015) and Fatima/Sankofa (*Remote Control*, 2021) all create new families ranging beyond biological reproduction or kinship ties. These protagonists tend to "Make Kin, Not Babies" – to borrow Donna Haraway's controversial maxim – using what may be described as strategies of assemblage.[3]

In reading the family constellations that Okorafor's young protagonists pursue and enter into as assemblages, it is important to bear in mind that *agency* is at the literal root of the notion of *agencement*, rendered *assemblage* in Brian Massumi's translation of *A Thousand Plateaus*.[4] Some critics, like John Phillips, have indeed called for a return to the original French term, precisely because the colloquial use of *assemblage* tends to obscure its philosophical sense of *arrangement* and reduces the concept to a description of a collection of constituent parts rather than focusing on "their connection, which implies the production of a sense that exceeds them and of which, transformed, they now form parts."[5] Here I primarily draw on Ian Buchanan's usage of assemblage to describe "the productive intersection of a form of content (actions, bodies and things) and a form of expression (affects, words and ideas)."[6] Issues of agency – power and choice – are thus at the heart of the concept of assemblage. Moreover, according to Deleuze

and Guattari, "all assemblages are assemblages of desire."[7] As Buchanan explains, the properties of an assemblage are not the result of its constituent materials. On the contrary, desire "selects materials and gives them the properties that they have in the assemblage."[8] In foregrounding desire, assemblages are thus inherently utopian in the sense articulated by Ruth Levitas, who regards "the *desire* for a better way of being" as the essential utopian ingredient.[9] Focusing on kinship through assemblage therefore facilitates a reading of Okorafor's fiction that foregrounds desire, utopian impulses, and nonreproductive means of kinmaking.

The conception of family in Okorafor's fiction is neither static nor normative. While traditions are inherited and passed on to new generations, the power of tradition is time and again shown to lie in its ability to adapt to new technological, climatic, or cultural realities. Okorafor's protagonists tend to reinvent traditional conceptions of families and create new family constellations through assemblage. These may include members of different human tribes, or even extraterrestrial, engineered or magical nonhuman creatures – assemblages that are driven by the desire to find new ways of being in the world and relating to others. These protagonists have to reinterpret traditions in order to survive and thrive. Individual agency is thus contingent on the ability to simultaneously work within tradition *and* transform it to meet current needs.

Desires, and their manifestation in assemblages, can be identified at multiple levels of the texts under discussion. Much of this chapter stays at the intradiegetic level, detailing how girls and young women create new families through assemblage. First, the discussion turns to agential assemblage through naming and storytelling in *Who Fears Death* and the Binti Trilogy, perhaps the most unequivocally utopian of the texts under consideration. However, despite tending to be the vehicle of utopian desires regarding kinmaking and agency in Okorafor's Africanfuturist fiction, assemblage should not be valorised as necessarily benevolent. This point is illustrated through a reflection on the role of assemblage in death and dying in *The Book of Phoenix and Remote Control*. Despite their sometimes dire settings, Okorafor's novels repeatedly articulate utopian desires for change in family norms, as well as in interpersonal and interspecies relations. The assembled families populating her texts are thus both vehicles of individual agency *and* utopian expressions of malleable traditions in an ecologically fragile world fraught with racial tension. By extension, assemblage thus seems central to Okorafor's utopian Africanfuturist impetus. The chapter

therefore concludes with a brief reflection on the role of narration in Okorafor's agential assemblages.

Remaking Families by Rewriting History in *Who Fears Death*

The protagonist of *Who Fears Death*, Okorafor's first novel for adults, is twenty-year-old Onyesonwu (often shortened to Onye). Most of the novel tells her life story as it is transcribed by an unknown chronicler over the two days during which she awaits her execution. The future Africa in which the novel is set is technologically advanced yet torn apart by tribal war: the Nuru believe they have the right to enslave the Okeke, as "is written in the Great Book."[10] Onye is the product of genocidal rape and is therefore *Ewu* (meaning 'born of pain').[11] By weaponising reproduction, the Nuru seek to destroy the very fabric of Okeke families and communities. All *Ewu* children have a peculiar look: since their skins have neither the dark-brown tone of the Okeke nor the yellow-brown tone of the Nuru, they look "more like desert spirits."[12] Further, as their bodies are marked by their violent origins, they are generally shunned by both the Okeke and the Nuru.

The name *Onyesonwu* means 'Who fears death?' and the defiance her mother expresses in naming her so seems to confer some additional agency on the girl.[13] At the start of the novel, we are told that six-year-old Onye "chose" Fadil, a blacksmith, as her mother's new partner, thereby creating a loving nuclear family where before there was none.[14] Due to Fadil's acceptance of Onye, she and her mother are at least tolerated by the Okeke community. Throughout the novel, Onye refers to Fadil, who loves her like his own child, as *Papa*, while she feels nothing but hatred for her biological father. However, the happy family purposefully assembled by Onye only lasts around a decade, and on the day of her adoptive father's funeral Onye's life changes. In her grief she manages to revive him for a moment before the spell is broken by Aro, the town sorcerer. Onye is now not just *Ewu*, but also a dangerous wielder of magic, and her position in the town becomes even more precarious.

Onye exhibits a great desire to forge a family of her own, thus carving out a place in society for herself and her mother. Yet her agency is circumscribed, not only by her appearance, gender, and age, but also by her inherited magical powers and seemingly inescapable destiny. As the chronicler remarks, Onye could not escape her fate, because "she was like a character

locked in a story."[15] Stories, which are in themselves assemblages open to rearrangement and change, as is made clear in the novel, also appear to have their own desires and agency.

Onye's magical abilities allow her to transform into a bird. When this first happens at the age of eleven, she finds the experience frightening. It is thus significant that another family-like constellation is forged shortly after the incident between the four Okeke girls who together undergo the Eleventh Rite, the circumcision of all eleven-year-old girls on the first day of the rainy season, thus marking the start of their transition from girlhood to womanhood. Onye defies her parents' wishes by taking part in the ceremony, but the four girls remain bound to each other and form a relationship more akin to that of close siblings than friends. Later, Onye uses her magical powers to reverse the girls' circumcisions.[16] Like Onye's assembled nuclear family, the Eleventh Rite assemblage is fragile and temporary, in that two of these girls later die in order to protect Onye. In this sense, her assertion of agency also determines their fate.

Despite being *Ewu* – and a girl – Onye eventually convinces Aro to take her on as an apprentice sorceress. The next family assemblage she forms includes Mwita, an *Ewu* boy who is also a sorcerer's apprentice. As Onye hones her magical powers, she sees visions of the continuing violence in the West against the Okeke, largely instigated by her biological father, a powerful Nuru sorcerer. Determined to defeat him and rewrite the Great Book that dooms the Okeke to subjugation by the Nuru, Onye and her company set out West across the desert. This extension of the Eleventh-Rite assemblage includes Mwita (later her lover) and one of the one of the girls' boyfriends. Eventually, the remainder of their group join the nomadic Red People who travel around in their own magical sandstorm and form a new spiritual alliance. Yet another type of assemblage is forged involving Onye, Mwita and the two local sorcerers based on their joint desire to protect Onye so that she can rewrite the Great Book. However, during an intense magical experience in the desert Onye dies:

> Every part of me that was me. My tall *Ewu* body. My short temper. My impulsive mind. My memories. My past. My future. My death. My life. My spirit. My fate. My failure. All of me was destroyed. I was dead, broken, scattered, and absorbed. It was a thousand times worse than when I first changed into a bird. I remember nothing because I was nothing.[17]

Seven days later she returns from the dead after "being put back together,

bit by bit" partly through the efforts of Mwita and the two sorcerers and partly by a force she calls the Creator, or "It Who Cannot Be Touched."[18] Significantly, Onye refers to her resurrection in terms of assemblage, albeit in the colloquial sense: "As It *reassembled* me, It arranged me in a new order. An order that made more sense. I remember the moment the last piece of me was returned."[19] Immediately on her resurrection she launches a spiritual attack on her biological father, which fails, so that her life must again be saved by one of the sorcerers. Mwita dies while trying to kill her biological father and her final ally, Luyu (one of the Eleventh Rite girls), also sacrifices her life to give Onye the chance to change the course of history and the Okeke's present and future by rewriting the Great Book.

Nevertheless, Onye cannot escape her own execution and her and Mwita's unborn child dies with her. As the narrator remarks, "Onyesonwu did die, for something must be written before it can be *rewritten*."[20] Appropriately, the storylines multiply here. The next, and final, chapter of the novel – labelled 'Chapter 1' – is entitled 'Rewritten' and presents an alternative ending. In this version Onye escapes from her cell and, inhabiting the body of the mythical *Kponyungo*, a giant flying lizard, she and the child inside her fly off to a green land where she hopes to reunite with Mwita.[21] Unbeknown to Onye, scenes on the ground indicate that relations between the Nuru and the Okeke have in fact changed – her rewriting of the Great Book has had the desired effect. As Miriam Pahl argues, by rejecting a linear understanding of time in the novel, Okorafor "in effect rescales the importance of the grand narrative that is represented by written history" since Onye's act of rewriting the Great Book reduces it to "*one* aspect of a rich archive" rather than the determining narrative.[22]

Onye, a self-described "bricoleur [. . .] who used what she had to do what she had to do" in her magic, reassembles herself in the bodies of the animals she becomes and displays remarkable agency throughout by creating new families and alliances through human assemblages.[23] These agential family assemblages find expression in unlikely relationships and bodies, although their primary content is the desire for change by rewriting the narrative governing the fate of the Okeke. The outcome of the novel is hopeful yet uncertain. It seems unlikely that Onye will be reunited with her friends who sacrificed themselves for her cause, because "fate [is] cold and brittle."[24] However, by conceiving a child of their own, Onye and Mwita reconfigure the possibilities of familyhood even before rewriting the Great Book, since

a child born of two *Ewu* parents is a completely new phenomenon. In the alternate narrative, Onye flies towards a utopian, non-traditional variation of the nuclear family at the end of the novel.

Although many die to allow Onye to fulfil her destiny, it seems significant that they choose to do so for the common good of their people. The assemblages they enter are agential and utopian. Whereas the Nuru sought to write the Okeke out of history through rape and massacre, Onye (with the help of her assembled allies) not only reinserts the Okeke into history by rewriting the narrative, but also holds out the utopian possibility of *Ewu* families existing on an equal footing with those of the Nuru and Okeke.

The Binti Trilogy as a Story of a New Name

As in *Who Fears Death*, one of the main themes of the Binti Trilogy (2015–18) is intertribal strife, in this case between the dominant Khoush and the subjected Himba. Further, there is longstanding hostility and war between the belligerent Khoush and the alien Meduse. Tribal conflict on Earth is thus paralleled by a galactic interspecies conflict. Like her father, Binti is a "master harmonizer" and destined to succeed him in his trade.[25] Yet, as briefly outlined at the start of this chapter, Binti asserts her agency by defying her family to become the first Himba to attend Oomza University. Much like Onyesonwu, Binti is marked as Other by her appearance: she follows the custom of all Himba women and covers her entire body with *otjize*, a mixture of red clay and oil. Himba women literally cover their bodies with their home soil, and Binti's ancestral home is aptly called the Root because it is built on an old root of an Undying tree.[26]

Through her harmonising power, Binti prevents a new war between the Meduse and Oomza, thereby becoming "family through battle" with the Meduse.[27] Her kinship with the Meduse is made corporeal: her braids are transformed into tentacles that resonate in communication with Okwu's tentacles. A bond with Okwu necessarily translates into a bond with all the Meduse, and by becoming part of the Meduse family she also gains limited access to their hive mind via Okwu. Nonetheless, when her hair changes into tentacles, Binti is no longer able to braid it into her "family's code pattern" as she used to.[28] Hair has great cultural significance and is an important motif in Okorafor's work, and this new assemblage fundamentally changes her while erasing some of the outward signs of her family history and traditions.[29]

Okwu, too, is marked by his contact with Binti. When the Meduse first attack the spaceship one of its tentacles shrivels up after coming into contact with Binti's *edan*. Later, the withered tentacle is healed almost completely by the application of *otjize*, although it remains a different colour than the rest.[30] Both Binti and Okwu thus bear the physical marks of their interspecies encounter. Entering into family assemblages always has consequences, precisely because they partially transform their constituent parts. Importantly, though, neither chooses to bear this outward sign of their bond; it is simply foisted on them.[31] The desire at the core of this assemblage thus gives its parts the necessarily properties, although the assemblage itself is neither governed by Binti nor Okwu. Even though the relationship between them is maintained by mutual choice and consent, and arises as a conscious, agential effort to make a connection, their physical transformations are not optional.

To Binti, her name, like the *otjize* she wears, speaks of her Himba roots and ancestry. Knowing her name equates to knowing herself, and she is in the habit of reciting her full name like a mantra to stave off panic. In a trance-like state she has a strange experience related to her name, which is repeated several times later in the trilogy, as she makes peace with her new family and individual identities:

> "Who are you?" a voice asked. It spoke in the dialect of my family and it came from everywhere.
>
> "Binti Ekeopara Zuzu Dambu Kaipka of Namib, that is my name," I said.
>
> Pause.
>
> I waited.
>
> "There's more," the voice said.
>
> "That's all," I said, irritated. "That's my name."
>
> "No."
>
> The flash of anger that spurted through me was a surprise. Then it was welcome. I *knew* my own name.[32]

Binti's physical changes mark her outsiderhood acutely: "For a moment, I was two people—a Himba girl who knew her history very very well and a Himba girl who'd left Earth and become part-Meduse in space. The dissonance left me breathless."[33]

Later in the trilogy, the mysterious Night Masquerade (which also makes a fleeting appearance in *Who Fears Death*) materialises outside Binti's window. This nightmarish figure, "a tall mass of dried sticks, raffia, and leaves with a wooden face dominated by a large tooth-filled mouth and bul-

bous black eyes", also exudes smoke and a strong smell.[34] Traditionally, the Night Masquerade can only be seen by boys and men, and the fact that it appears to Binti again marks her as Other. In the final novella of the trilogy we learn that "its appearance signified the approach of a big change" and it is "the personification of revolution."[35] Contrary to belief, though, the Night Masquerade is not entirely magical but rather a spiritual costume worn by a member of a secret society of elders who appears to community members with messages from the elders.[36] The Night Masquerade can thus be read as an assemblage with the appearance of a raffia-decked scarecrow conveying the elders' desires to individual members of their community. It is also an instrument of subtle control.

On the same night as the Night Masquerade first appears to Binti the despised Desert People arrive to take her away. Whereas the Khoush treat the Himba with contempt, the Himba in turn disdain the Desert People as primitive due to their darker skin and lack of *otjize*, and also mistake their telepathic communication for a genetic neurological disorder.[37] As Binti's mother refuses to let her leave with them, her paternal grandmother, who is one of the Desert People, is the first to articulate Binti's new family ties to the Meduse in human terms, saying: "We'll take your daughter, our daughter, into the desert", before adding to Okwu, "Your *daughter*, too."[38] In the final part of the trilogy, the Desert People instead refer to Okwu as Binti's "partner".[39] However uncertain they are about the exact nature of the unprecedented relationship between them, the Desert People definitely recognise Okwu as part of Binti's family.

Whilst in the desert Binti learns that the Desert People are really called the Enyi Zinariya after the Zinariya, aliens who passed Earth on their way to Oomza long before the rest of humanity had mobile phones. Her grandmother explains that the aliens gave them advanced biological communication technology to keep in touch after their departure, which was passed on to their offspring via DNA.[40] Binti thus realises that she and all her siblings also carry alien DNA, yet tries to reassert her identity and retain her sense of self by thinking: "I am Himba, even if my hair has become *okuoko* [tentacled] because of my actions and even if I have Enyi Zinariya blood. Even if my DNA is alien."[41] During their journey, Binti befriends a Desert Boy of her own age, Mwinyi, who like her is a master harmoniser and arranges safe passage for the group by negotiating with the dangerous animals they encounter. At the end of the second novella, they receive a telepathic message from Binti's father saying that the Khoush have attacked and perhaps

killed Okwu and set fire to the Root. The Meduse are on their way and it looks as if the full-scale war that Binti so narrowly averted when she landed with Okwu may still claim the lives of most of her biological and assembled family. So, whereas the first volume of the trilogy ends positively with Binti finding her feet at university, the second novella ends in the anticipation of disaster.

In the third novella, Binti and Mwinyi, who are now in love, return to the Root on camelback and find that the Khoush have also burned down other Himba homes. Binti's biological family is presumed dead, but Okwu lives and has been joined by some of the Meduse spoiling for war with the Khoush. War between the Himba and the Khoush also appears increasingly unavoidable. The Himba elders, and Binti herself, blame Binti's leaving home for the impending war.[42] Despite lacking the appropriate seniority and authority, Binti calls an urgent meeting of the Himba to establish peace between the Khoush and the Meduse and thereby save the Himba from destruction. On the arrival of the Khoush commander and troops, Binti introduces herself as "Binti Ekeopara Zuzu Dambu Kaipka *Meduse Enyi Zinariya* of Osemba, master harmonizer."[43] She now identifies herself as Meduse *and* as one of the Desert People, while also specifying her hometown. Her extended name reflects her multiple new family relationships through complex genetic heritage (a type of biologic assemblage), as well as the existing ties to her family and previously established kinship with Okwu.

When the Himba elders fail to arrive for the negotiations, Binti stands between the Meduse and Khoush armies assembled in front of the Root to "incite the deep culture of the Himba" with the explanation that "[t]he Himba Council members were to do this, but I think they're afraid. I think they're hiding. I'm not. And I'm *a collective within myself*, so I can."[44] It would thus seem that Binti has not only entered into family assemblages through birth, choice or happenstance, but that she has also become a type of assemblage herself. Here the governing desires are clearly to avert war, protect and unite all the various peoples she holds kinship with, and reconceptualise the relations between them.

Binti speaks directly to the Meduse chief and the Khoush king and they agree to maintain the peace. Yet when the armies begin to depart someone opens fire (to the horror of both leaders) and a battle starts. Binti is caught in the crossfire and dies. After her death, Mwinyi manages to open the Undying Root beneath the family house and her family is discovered

safe and well: "when the Root had been attacked and set aflame, something had made it react as *one of the family*. It enclosed and protected" them.[45] Their family thus includes supernatural plants as well as Himba and Desert People, although Binti, the primary assembler of the trilogy, is dead.

Binti's remains are prepared for the funeral according to Himba customs and placed on top of the Night Masquerade costume, because she "was change, she was revolution, she was heroism. She was more Night Masquerade than anyone had ever been."[46] The new-born child of the Miri spaceship, New Fish, is sent to take Binti's body to the Rings of Saturn, where she had wanted to journey next. Okwu and Mwinyi are also on board and the body is placed directly on New Fish's flesh floor, in its breathing chamber, a room filled with plants. Days later, when Mwinyi wants to take a last look at Binti's face before jettisoning the body, Binti is alive. Her missing limbs have regrown from the Miri's microbes, making her "more Miri 12 than human"; she can feel and understand the voice of the ship in her new body – a connection New Fish refers to as "our union".[47] Likewise, New Fish has absorbed some of Binti and is able to communicate with her and Mwinyi in the telepathic manner of the Desert People. The link to New Fish has a further component: they have to remain in each other's physical proximity. When Binti is again asked her name during another trance-like experience – which she now realises is communication with her alien Zinariya ancestors – she gives her old name before correcting herself, saying "My name is Binti Ekeopara Zuzu Dambu Kaipka *Meduse Enyi Zinariya New Fish* of Namib."[48]

The novella ends with their return to Oomza University, where Mwinyi also stays on to study. During a medical examination, Binti is asked whether she wants children. Replying in the affirmative, to her surprise the doctor suggests making Okwu the birth parent: "if you were to have a baby, it would have your *okuoko* because Meduse DNA is strong. It bullies its way into all offspring."[49] Binti's family assemblages are thus inscribed in her body and will be inherited by their children. Her new, extended name tells the story of these new kinship relations: she is Himba but also carries the DNA of the Zinariya passed on by the Desert People; she is part Meduse and part Miri ship and in the future will become Mwinyi's lover and co-parent with Okwu *at the same time*. In the new full form of her name Binti recognises both tradition and her multiple genetic past, while simultaneously transforming and extending the tradition to include new family permutations.

Deadly Assemblages

The Book of Phoenix, the prequel to *Who Fears Death*, takes the form of a series of nested narratives. The main embedded narrative is the story of Phoenix herself, while the frame narrative is set long before the present of *Who Fears Death*, albeit in the same world, and tells of an old Okeke man named Sunuteel finding some obsolete technological devices in a cave. Somehow, a recording is transferred to his own device, but he can only understand the portion in English, a now almost extinct language, which is spoken in a "soft breathy" woman's voice: "'There is no book about me,' the voice said. 'Well, not yet. No matter. I shall create it myself; it's better that way. To tell my tale, I will use the old African tools of story: Spoken words.'" [50] The novel ends with Sunuteel's writing of the Great Book "as the story of The Okeke and Why They are Cursed":

> Now it was a time for stories that were truer than the truth, stories that spoke to the soul.
>
> Sunuteel did not specifically set out to solidify the Okeke as slave and the Nuru as superior through powerful literature, but what is in one's heart comes out in one's stories. Even when he or she's retelling someone else's story. Sunuteel was old. He'd lived for a long time understanding his ancestors as slaves.[51]

As Phoenix herself notes in the internal narrative, "Africans like to tell stories, and stories travel and germinate. And sometimes, stories evolve into trouble." [52] By changing the story told by Phoenix and assembling a new history from the fragments he discovers, Sunuteel not only changes an account of the past but also shapes future relations between Okeke and Nuru, which are again rewritten by Onyesonwu in *Who Fears Death*. Assemblages, whether of families or stories, are dynamic and becoming yet never final.

The story Phoenix tells is also set in the future, although long before Sunuteel's present. In brief, Phoenix is a speciMen, an engineered organism with the physical features of an African woman but designed to be a weapon by the LifeGen corporation. She is literally a genetic assemblage born of scientific desire (as well as greed) and is

> nothing but the result of a slurry of African DNA and cells. They constructed the sperm and the egg with materials of over ten Africans, all from the West African nations of Nigeria, Ghana, Senegal, and Benin. Then they combined all that with DNA from Lucy the Mitochondrial Eve, the ten-

year-old Ethiopian girl who carried the complete genetic blueprint of the human race.[53]

Like many other speciMen, she is held captive in LifeGen Tower 7 in New York, where the corporation conducts experiments and continues its bioengineering endeavours. Her development has been accelerated – at the age of three she looks about forty and has a vast amount of knowledge because she is able to read incredibly quickly and has an almost infinite supply of reading material.

Phoenix thinks that she was named after the city in Arizona, but we later learn that her human birthmother gave her the name. In this novel, as in the Binti Trilogy, "[n]ames are powerful. They have a way of becoming destiny."[54] It is therefore appropriate that Phoenix later learns that she can die, be reborn and fly like her mythical namesake. While Phoenix was purposefully assembled and designed to be used as a weapon by LifeGen, this assemblage in turn has unintended desires and capacities, in that Phoenix both invokes and resembles the mythical creature. She escapes from the tower and is later instrumental in the escape of thousands of other speciMen from the corporation's other facilities.

Assembled families are central to *The Book of Phoenix* as well. Her first allies are other speciMen: Saeed, whom she loves, and Mmuo, who can pass through any object or structure and thus cannot be kept captive in the tower. Later, Saeed and Mmuo, as well as the enormous, winged man she releases when trying to escape, help Phoenix to attack the other towers and free speciMen. This assemblage of assembled creatures forms a family of sorts, but Phoenix also forges connections to others. While attempting to escape Phoenix is killed by the guards in the lobby of the tower and starts burning. The Backbone that forms the basis of the tower starts "shrugging off the building that was its shackle" and Phoenix is mere "ashes being scattered by vines and roots" when the tower falls.[55] Yet, true to her name, Phoenix is reborn seven days later in the ruins with her memories intact, now also sporting wings.

In the ruins of the tower Phoenix is presented with an extraterrestrial seed, which eventually leads her to Ghana, where she buries it beneath a shea tree. The seed (incidentally a narrator of one of novel's nested narratives) seems to exist in symbiosis with the trees, and Phoenix thus brings great prosperity to the town in the form of an abundant shea harvest. Due to her wings, the townspeople call Phoenix *Okore*, meaning 'Eagle' in Twi. They build her a house and she becomes part of the community. Here, Phoenix

falls in love with Kofi, the local doctor, but is tracked down by LifeGen. Kofi is shot, and to relieve his pain Phoenix bursts into flames, consuming everything around her, and dies again. After her rebirth she surrenders in order to spare the town and as she is driven away she thinks of the townspeople as "the only family" she has known.[56]

In another allusion to the Middle Passage, Phoenix refuses to travel by ship back to Tower 6 in Miami. Instead, she is injected with a tracking device and allowed to follow the ship by flying to her "false home" in America."[57] On the way she is again joined by the winged man she had released from Tower 7, who had also flown with her for part of her journey to Africa. This time he speaks, addressing her as "Phoenix of the Okore" and telling her, in an apparent Star Wars allusion, that he is her father.[58] Phoenix regards this as a joke, although it seems likely that he does form part of her genetic makeup. The winged man tells Phoenix that she is able to "slip through time and space" in a way that she can control.[59] This knowledge gives her incredible agency and allows her to escape capture and repeatedly attack LifeGen, after which she is reunited with Mmuo and Saeed.

Much like *Who Fears Death*, the novel is picaresque. Here I only refer to two further significant episodes, namely Phoenix's reunion with her birth mother and Phoenix's death. After perusing LifeGen records, Phoenix learns that her mother, Vera Takeisha Thomas, is African American and is being held at a correctional facility. By slipping, Phoenix visits her mother who is weak and frail, despite only being twenty-eight. According to the files Phoenix had read, she had caused her mother's cancer during pregnancy by exposing her to the radiation she exudes, as well as her "own strange blood mingling with hers."[60] Her mother was already dying, but by choosing to hold Phoenix's hand during the visit she effectively commits suicide. While Binti's strange assemblies frighten her, they also give her immense joy. She can experience flight through her connection with New Fish, communicate telepathically thanks to her Desert ancestry and communicate with Okwu through her tentacles. However, Phoenix regards herself as "the villain in the story. Haven't you figured it out yet? Nothing good can come from unnatural bonding and creation. Only violence."[61]

Phoenix thus regards herself as a monstrous assemblage, leaving death in her wake.[62] When her "brother" Mmuo is killed in a LifeGen attack, Phoenix embraces her power to kill.[63] She slips and burns "like a sun" over New York and becomes so hot that the "waters below the buildings boil and steam."[64] She wreaks apocalyptic global havoc and dies one last time as she

kills the seven investors in LifeGen who had tried to achieve immortality through bioengineering and exploitation:

> Phoenix Okore blew across the earth. She burned the cities. Turned the oceans to steam. She was the reaper come to reap what was sown. Wherever those seven men lived. Let them die. Let everything die. Let that which had been written all be rewritten.[65]

In yet another version of the Middle Passage, Saeed walks to Africa across the dried-up Atlantic and extracts Phoenix's memories – those that eventually become the book of Phoenix – from a feather he had kept. The first words he hears also contain Phoenix's description of herself and present a Binti-like catalogue of epithets detailing her origins and roles: "The Phoenix Okore, SpeciMen, Beacon, Slave, Rogue, Fugitive, Rebel, Saeed's Love, Mmuo's Sister, Villain."[66] Whereas Binti started with an already complex history, Phoenix starts as a blank slate and puzzles together her own history and the histories of others as the narrative progresses. She assembles her own past. Like Onye, Phoenix repeatedly loses the families she assembles, although she does retain their stories. Her narrative is repeatedly punctuated by the life stories of her new family members (e.g. the alien seed, Kofi, the winged man, Saeed, Mmuo, and Vera), with each one in turn tending to emphasise the histories of their birth families.

Okorafor's novella *Remote Control* (2021) is connected to *The Book of Phoenix* through the mysterious seed that Phoenix leaves in Ghana. While *Remote Control* is set after Phoenix buries the seed, the narrative seems to play out before the apocalyptic events recounted in *The Book of Phoenix*. Like Phoenix, the young protagonist Fatima becomes an instrument of death after holding a glowing green object in her hands so that her skin seems to absorb the light. A year later, a "fox who'd escaped from the zoo" moves into the family's shea tree and Fatima starts to spend more time there in order to be close to the strange animal, an Other, non-indigenous species.[67] The fox is with her when the soil below the tree suddenly opens and a root presents her with a lidded wooden box containing a seed, which she immediately recognises as the object she had held in her hand the night of the meteor shower. This appears to be the seed that Phoenix buried. When Fatima handles the seed warmth spreads throughout her body. She inhales the "green mist" and the smell it emits and her malaria vanishes, never to return.[68] Later, when she is bothered by mosquitoes, she protects herself by glowing "faintly green-yellow" and they all die.[69]

Despite such quirky fairy tale-like elements, the novella is disturbing. At the age of seven, Fatima orphans herself by accidentally killing all her immediate family and most of the people in her hometown when she is hit by a car and the pain releases the mysterious power she had absorbed from the seed. As a child unfamiliar with death, she first assumes that everyone has just fallen asleep. However, it soon becomes clear that they are all dead and, still at the scene of the accident, Fatima forgets her name:

> It left her as a butterfly leaves a flower. She felt it go. It wasn't instant, just a gradual disappearance. Her name. She couldn't remember her name. She whimpered, fighting to recall it. Nothing. "Home, home, mommy, the tree," she whispered. "Fenuku's dirty room. Papa's cigarettes. Papa wanted his favorite cigarettes." Still nothing. No name.[70]

In its place, she takes the first name that comes to mind, that of the Sankofa bird her brother Fenuku had carved from wood – a carving she picks up in his room and drops, breaking the bird "just as she'd broken her family and her entire hometown."[71] *Sankofa*, an important concept in Black Studies, literally means 'go back to fetch it' in the Ghanian language Akan, and "refers to the process of going back to the past in order to build for the future."[72] The mythical bird is popularly depicted as walking forwards while craning its neck backwards over its back with an egg – or seed, as explicitly suggested in *Remote Control* – in its beak.[73] Like her namesake bird, Sankofa seems to inhabit a different, mythical plane than those around her, yet her deadly powers have real consequences. Moreover, the structure of the novella is also reflected in the figure of the Sankofa bird: the reader starts to follow the teenage Sankofa to the end of the journey as she recounts the events that brought her to this point.

As Sankofa is a potential danger to all living things and her very touch disables all the technology she encounters, she is nicknamed 'Remote Control' and myths and rumours spread about her. Sankofa becomes known as, and even refers to herself as "The Adopted Daughter of Death."[74] She is unable to stay in any one place for very long. The only constancy is the presence of the fox, although it is neither a pet nor a proper companion in that it comes and goes at will. Like Sankofa, the foreign animal seems to exist in a slightly different reality and is unaffected by the death she emanates. Sankofa seems to have the ability to communicate with other animals. At the beginning of the novella, she greets a spider that appears "to acknowledge and greet her back."[75] She also speaks "words of love to the birds, liz-

ards, grasshoppers and spiders who were certainly listening"; a circulating rumour indicates that "when she cried, spiders, crickets and grasshoppers would sing to soothe her."[76] While these animals certainly provide some companionship, such bonds are fleeting.

Sankofa later learns to control and direct her killing power and becomes a kind of peripatetic euthaniser who survives on the hospitality of frightened well-wishers. When she moves in with Alhaja in RoboTown after saving her electronics shop from robbers, they naturally become a family: "No questions, no demands. It was so nice. She and Alhaja never discussed it. They never planned for it. It just happened."[77] Although this may seem to be an assemblage of happenstance, rather than an agential assemblage, it should be noted that both Alhaja and Sankofa *choose* to become each other's family. As a result of her youth, Sankofa seems even more vulnerable than the protagonists already discussed and for the most part remains alone due to her terrible killing power. Dan Friedman has described the novella as the author's bleakest work to date, because "Sankofa has almost no agency over her power":

> In her previous work, Okorafor championed magic, science, and the ability of young African women to embrace change. Until now, her protagonists have bounced back from multiple setbacks, absorbed elements of the cultures they have met, and driven onward to change society for the better. There's no such optimism in *Remote Control*, where the protagonist brings only death.[78]

While Friedman's observation is accurate, I would argue that the novella does retain some utopian potential.

Sankofa eventually returns to her hometown. Her assumed name is therefore highly appropriate, in that she literally returns to her abandoned childhood home, and as she does so she recovers her lost memories and her birthname. At the end of the novella, she reburies the seed from which she gained her powers beneath the shea tree where it shines "like a galaxy of green stars" with the seeds underneath the other trees.[79] Afraid that LifeGen might harvest the seeds and develop "[i]nternational corporate-level remote control", Sankofa activates her mysterious light.[80] The seeds respond by glowing brighter and Sankofa also increases her brightness: "Then some more. Then even brighter. And this time, *she did it on purpose*."[81] She now has agency and control, as well as a connection to all the other seeds. As these are the final sentences of the novella, it is uncertain whether Sankofa

proceeds to further destruction or simply destroys the seeds to prevent them falling into LifeGen's hands. Although her power is terrible, she learns how to harness the deathly assemblage to relieve individual suffering, but only after losing her family by orphaning herself.

Conclusion: Narrated Family Assemblages and Relating to Others

In Okorafor's acclaimed first contact novel, *Lagoon* (2014), the alien Ayodele remarks: "Human beings have a hard time relating to that which does not resemble them. It's your greatest flaw."[82] Accepting otherness, and even including Others (whether of different races, species, or planets) as kin is a central ingredient of the assembled families populating Okorafor's oeuvre. As Dustin Crowley notes, "statements of solidarity within humanity are often productively complicated in Okorafor's fiction, not only calling into question who counts as 'us,' but also who counts as the 'other'." [83] Okorafor's young protagonists change their life stories and the stories of their communities by extending the bond of kinship to Others and by entering into assemblages that break traditional family moulds. Haraway too insists on the utopian potential held by making kin of Others: "Kin making is making persons, not necessarily as individuals or as humans", noting that "making kin and making kind (as category, care, relatives without ties by birth, lateral relatives, lots of other echoes) stretch the imagination and *can change the story*."[84] By recognising Others as potential kin, these protagonists also redefine themselves.

Aptly, Sandra Lindow remarks that in Okorafor's young-adult fiction the "protagonists do not embark on their journeys seeking treasure, but when they return, the treasure they have found is themselves."[85] Similarly, the kinmaking through assemblage in which her young protagonists engage may be regarded as a type of self-actualisation. Of the four protagonists discussed here, Binti is the only one who deliberately rejects an established family position to assert her individuality and further her own development as a scholar. Although this endangers her life and the lives of her birth family, the greater community emerges stronger as a result of Binti's choices. Not only are the bonds with her birth family reinforced, but kinship is also extended to nonhumans through the bonds with New Fish and Okwu. The other three protagonists discussed all repeatedly try – and fail and try again – to assemble families to replace the ones they have lost or never knew.

Yet even the deadly assemblages of Phoenix and Sankofa retain the utopian potential to rewrite received narratives on kinship, family, reproduction *and* death, while Onye completely changes the story of her people.

While some characters have more agency than others in assembling new families, time and again Okorafor highlights the centrality of storytelling to kinmaking. These assemblages have components – human, alien, animal, etc. – but are always also *narrated*, and storytelling always presupposes some agency on the part of the teller. Anna Lowenhaupt Tsing points out: "Assemblages are open-ended gatherings. They allow us to ask about communal effects without assuming them. They allow us potential histories in the making."[86] The figure of the assemblage is therefore both an apt way of describing relations in Okorafor's novels, but also provides a way of thinking about the work done by speculative fiction more generally. Like Onye, Okorafor is a bricoleur and her picaresque fiction may be regarded as utopian narrative assemblages that are formed to highlight alternatives to Western conceptions of being in the world, making kin, and relating to Others.

[1] Okorafor, Africanfuturism Defined, *Nnedi's Wahala Zone Blog*. 19 October 2019 (Accessed 31 July 2021), n.p.

[2] Okorafor, *Binti: The Night Masquerade*. New York: Tom Doherty Associates, 2018, p. 194.

[3] Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*. Durham, NC: Duke University Press, 2016, pp. 5–6. Haraway's slogan as well as the subsequent volume *Making Kin Not Population* (Clarke & Haraway (eds). Chicago: Prickly Paradigm Press, 2018) have understandably attracted criticism for their focus on the role of overpopulation in environmental crises, particularly given the historical connections between population discourses and eugenics, colonialism, and racism. Although a more detailed discussion of these critiques falls beyond the scope of this chapter, salient examples may be found in Dow & Lamoreaux, Situated Kinmaking and the Population 'Problem'. *Environmental Humanities*. Vol. 12, no 2, 2020, p. 478; Sasser, *On Infertile Ground: Population Control and Women's Rights in the Era of Climate Change*. New York: New York University Press, 2018, p. 150; and Subramaniam, 'Overpopulation' Is Not the Problem. *Public Books*. 27 November 2018 (Accessed 4 March 2022), n.p.

[4] Deleuze & Guattari, *Mille plateaux*. Paris: Éditions de Minuit, 1980, p. 10; Deleuze & Guattari, *A Thousand Plateaus*. Minneapolis: University of Minnesota Press, 1987, p. 4.

[5] Phillips, *Agencement*/Assemblage Theory, *Culture & Society*. Vol. 23, no 2–3, 2006, p. 108

[6] Buchanan, Assemblage Theory and Its Discontents, *Deleuze Studies*. Vol. 9, no 3, 2015, p. 390.

[7] Deleuze & Guattari, *A Thousand Plateaus*. p. 399.

[8] Buchanan, *Assemblage Theory and Method: An Introduction and Guide*. London: Bloomsbury Academic, 2021, p. 56. Buchanan presents an extended critique of what he regards as the (mis)use of the concept by theorists like Jane Bennett and Manuel Delanda, precisely because of their disregard of desire in favour of focusing on the constituent parts of assemblages.

[9] Levitas, *The Concept of Utopia*. Oxford: Peter Lang, 2010 [1990], p. 221; my emphasis.

[10] Okorafor, *Who Fears Death*. New York: DAW Books, 2010, p. 17.

[11] Okorafor, *Who Fears Death*. p. 32.

[12] Okorafor, *Who Fears Death*. p. 26.

[13] Okorafor, *Who Fears Death*. p. 6.

[14] Okorafor, *Who Fears Death*. p. 7.

[15] Okorafor, *Who Fears Death*. p. 411.

[16] Although a discussion of the representation of female genital mutilation (FGM) in the novel is outside the scope of this analysis, it should be noted that Okorafor "takes a strongly postcolonial and feminist view . . . at once championing African cultures and critiquing their gender roles and certain other cultural practices" (Burnett, The Great Change and the Great Book: Nnedi Okorafor's Postcolonial, Post-Apocalyptic Africa and the Promise of Black Speculative Fiction. *Research in African Literatures*, Vol. 46, no 4, 2015, p. 135). Lisa Dowdall discusses Okorafor's treatment of FGM as an example of critical dystopia (The Utopian Fantastic in Nnedi Okorafor's *Who Fears Death*. *Paradoxa: Studies in World Literature*. Vol. 25, 2013, p. 174), while Julia Hoydis similarly argues that the novel "acknowledges female oppression and, at the same time, affirms women's abilities to liberate themselves and others" (A Darker Shade of Justice: Violence, Liberation, and Afrofuturist Fantasy in Nnedi Okorafor's *Who Fears Death*. *Postcolonial Justice*, Bartels, Eckstein, Waller & Wiemann (eds). Leiden: Brill/Rodopi, p. 188).

[17] Okorafor, *Who Fears Death*. p. 316.

[18] Okorafor, *Who Fears Death*. p. 316.

[19] Okorafor, *Who Fears Death*. p. 317; my emphasis.

[20] Okorafor, *Who Fears Death*. p. 415.

[21] Okorafor, *Who Fears Death*. p. 418.

[22] Pahl, Time, Progress, and Multidirectionality in Nnedi Okorafor's *Who Fears Death*. *Research in African Literatures*. Vol. 49, no 3, 2018, p. 220; my emphasis.

[23] Okorafor, *Who Fears Death*. p. 221.

[24] Okorafor, *Who Fears Death*. p. 419.

[25] Okorafor, *Binti*. New York: Tom Doherty Associates, 2015, p. 29.

[26] Okorafor, *Binti: The Night Masquerade*. p. 55.

[27] Okorafor, *Binti*, p. 90

[28] Okorafor, *Binti*. p. 87.

[29] Cf. Burger, Math and Magic: Nnedi Okorafor's *Binti* Trilogy and Its Challenge to the Dominance of Western Science in Science Fiction. *Critical Studies in Media Communication*. Vol. 37, no 4, 2020, pp. 364–77; Marotta, Nnedi Okorafor's Afrofuturism and the Motif of Hair, *Journal of Science Fiction*. Vol. 2, no 2, 2018, pp. 10–12.

[30] Okorafor, *Binti*. p. 70.

[31] Okorafor, *Binti: The Night Masquerade*. p. 48.

[32] Okorafor, *Binti: Home*. New York: Tom Doherty Associates, 2017, p. 9.

[33] Okorafor, *Binti: Home*. p. 52.

[34] Okorafor, *Binti: Home*. p. 89.

[35] Okorafor, *Binti: The Night Masquerade*. p. 56.

[36] Okorafor, *Binti: The Night Masquerade*. pp. 124–25.

[37] Okorafor, *Binti: Home*. p. 129.

[38] Okorafor, *Binti: Home*. pp. 97–98; my emphasis.

[39] Okorafor, *Binti: The Night Masquerade*. p. 44.

[40] Okorafor, *Binti: Home*. pp. 129–30.

[41] Okorafor, *Binti: Home*. p. 130.

[42] Okorafor, *Binti: The Night Masquerade*. p. 66; 69.

[43] Okorafor, *Binti: The Night Masquerade*. p. 92; my emphasis.

[44] Okorafor, *Binti: The Night Masquerade*. p. 116; my emphasis.

[45] Okorafor, *Binti: The Night Masquerade*. p. 134; my emphasis.

[46] Okorafor, *Binti: The Night Masquerade*. p. 137.

[47] Okorafor, *Binti: The Night Masquerade*. p. 158; 151.

[48] Okorafor, *Binti: The Night Masquerade*. p. 169; my emphasis.

[49] Okorafor, *Binti: The Night Masquerade*. p. 192.

[50] Okorafor, *The Book of Phoenix*. New York: DAW Books, 2015, p. 7.

[51] Okorafor, *The Book of Phoenix*. p. 270.

[52] Okorafor, *The Book of Phoenix*. p. 106.

[53] Okorafor, *The Book of Phoenix*. p. 174.

[54] Okorafor, *The Book of Phoenix*. p. 55.

[55] Okorafor, *The Book of Phoenix*. p. 39.

[56] Okorafor, *The Book of Phoenix*. p. 106.

[57] Okorafor, *The Book of Phoenix*. p. 110.

[58] Okorafor, *The Book of Phoenix*. p. 112.

[59] Okorafor, *The Book of Phoenix*. p. 114.

[60] Okorafor, *The Book of Phoenix*. p. 244.

[61] Okorafor, *The Book of Phoenix*. p. 101.

[62] For a more detailed discussion of the intersection between monstrosity and kinship in the novel, see Grimbeek, Monstrous Kin in N. K. Jemisin's Broken Earth Trilogy and Nnedi Okorafor's *Book of Phoenix*. *Kinship in the Fiction of N. K. Jemisin: Relations of Power and Resistance*, Åstrom & Bonnevier (eds). Lanham: Lexington Books, 2023, pp 177–96.

[63] Okorafor, *The Book of Phoenix*. p. 225.

[64] Okorafor, *The Book of Phoenix*. pp. 256–57.

[65] Okorafor, *The Book of Phoenix*. p. 260.

[66] Okorafor, *The Book of Phoenix*. p. 262.

[67] Okorafor, *Remote Control*. New York: Tom Doherty Associates, 2021, pp. 30–31.

[68] Okorafor, *Remote Control*. p. 33.

[69] Okorafor, *Remote Control*. p. 61.

[70] Okorafor, *Remote Control*. p. 55.

[71] Okorafor, *Remote Control*. p. 56.

[72] Gammage, Sankofa. *Encyclopedia of Black Studies*, Asante & Mazama (eds). Thousand Oaks: SAGE, 2005, p. 425. See for example Christel N. Temple on the African Diaspora's adoption of Sankofa as a practice in "reconstituting the fragmented cultural past" (The Emergence of Sankofa Practice in the United States: A Modern History. *Journal of Black Studies*. Vol. 41, no 1, 2010, p. 128.).

[73] Okorafor, *Remote Control*. p. 29.

[74] E.g., Okorafor, *Remote Control*. p. 77.

[75] Okorafor, *Remote Control*. p. 10.

[76] Okorafor, *Remote Control*. p. 139; 148.

[77] Okorafor, *Remote Control*. p. 101.

[78] Friedman, The Death of the Future: On Nnedi Okorafor's 'Remote Control'. *Los Angeles Review of Books*. 23 January 2021 (Accessed 10 September 2021), n.p.

[79] Okorafor, *Remote Control*. p. 159.

[80] Okorafor, *Remote Control*. p. 159.

[81] Okorafor, *Remote Control*. p. 159; my emphasis.

[82] Okorafor, *Lagoon*. London: Hodder & Stoughton, 2014, p. 67.

[83] Crowley, Cosmos and Polis, Space and Place in Nnedi Okorafor's SF. *Science Fiction Studies*. Vol. 46, no 2, 2019, p. 272.

[84] Haraway, *Staying with the Trouble*, p. 103; my emphasis.

[85] Lindow, Nnedi Okorafor: Exploring the Empire of Girls' Moral Development. *Journal of the Fantastic in the Arts*. Vol. 28, no 1, 2017, p. 64.

[86] Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton: Princeton University Press, 2015, pp. 22–23.

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Sandra Lantz & Britt Johanne Farstad

Humanity in the Grip of Alien Geneticists: Octavia E. Butler's *Lilith's Brood*

> "Is there anything left on Earth?" she whispered. "Anything alive, I mean."
> "Oh, yes. Time and our efforts have been restoring it."
>
> [...]
>
> "Jdahya," she said, "I want to know the price of your people's help. What do you want of us?"
>
> Octavia Butler, *Lilith's Brood* [1]

In this chapter etymological interpretations are used to analyse Octavia E. Butler's (1947–2006) somewhat special naming of the characters in *Lilith's Brood* (2000). In the future world created by Butler, myths function as effective narratives in a powerful story containing many different levels of social criticism and authoritative structures. Since its publication, *Lilith's Brood* has been analysed from a multitude of perspectives, and different writers have focused on distinctive aspects of the future world that Butler created.[2] Feminist authors have revised and reformulated mythological characters for a long time, for example to strengthen female identity and make power structures visible.[3] By analyzing Butler's naming in the novels, we can deepen the understanding of the course of events in this speculation about future human life and reproduction. The interdisciplinary, analytical perspective also involves intertextuality and theories of rituals and myths, as Butler's narrative choice of names implies myths from various cultures. By elucidating different origins and

meanings of names, new understandings of the respective narrative and function in Butler's future world open for new interpretations, insights, and approaches.

Lilith's Brood comprises *Dawn* (1987), *Adulthood Rites* (1988) and *Imago* (1989). The novels were published at a time when public debates about gene therapy, IVF and genetic engineering were at a relatively early stage. The novels can be understood as a novelist's speculation about one possible outcome of genetic engineering. A prominent theme throughout the trilogy is Butler's question of just how profound changes human beings can undergo and still consider themselves humans. In *Lilith's Brood*, humans are not the engineers but those engineered upon. The aliens in Octavia Butler's novels are not only genetic engineers, but they are also genetic geniuses. And in the Oankali laboratory, human beings are the preferred species to experiment on.

In the 1980s, public debates about the consequences of gene technology became more common but were still in an early phase. By the end of the 1990s, Lee M. Silver and several transhumanists became actors on the public scenes, arguing for benefits expected from new technology.[4] Several transhumanists believe that we decide what we want to do with gene technology. According to Silver, human beings are in control of their reproduction and can choose their way when it comes to genetic engineering, new reproductive methods, or which direction to go in the future. Silver is confident that the future of human beings is to enhance themselves in any possible way, by any means. This position is quite common within the framework of liberal democracy and among those who are concerned by modern gene technology; people tend to believe that humans, as scientific beings, are in control to determine the future of Homo Sapiens. According to our reading of Butler, she suggests otherwise.

Each book in Butler's trilogy has its main protagonist. Lilith is the main character in *Dawn* and, with reference to Jewish mythology and mysticism, is named after the first mythological woman. In the future world of *Lilith's Brood*, she is the reluctant first mother of the new species. Lilith thus indicates an important direction for the understanding of Butler's fiction. In *Adulthood Rites*, Lilith's son Akin is the main character, and in the final novel, *Imago*, Jodahs is the protagonist. These two offspring both have human and alien genes but are brought up extremely differently. The aliens are named Oankali, and a key character in the alien race is named ooloi. The significant names and naming add to understanding their stories and functions in the respective narratives.

Butler seems to have been particularly deliberate in the naming of her protagonists in *Lilith's Brood*. According to the creation myth in *Genesis*, name-giving is one of the most important acts performed in the first days of the new world. In *Genesis* chapter 2:19,

> the Lord God formed every beast of the field, and every fowl of the air, and brought them unto Adam to see what he would call them; and whatsoever Adam called every living creature, that was the name thereof. [5]

The novels were initially released as *The Xenogenesis Trilogy Part I–III* (1987–1989). This title mirrors two main themes in the novels: the prefix 'xeno' relates to a foreigner or foreigners, other, different, strange in origin, alien, and outsiders[6], whereas 'genesis' means origin, creation or beginning, and is the name of the first book in the Old Testament. Hence, the title is an echo of allusions reflecting the themes on which the intrigue is built.

Butler clarifies and emphasises the need for diversity and change through the disposition of the trilogy: *Dawn* focuses on the female, Lilith, and the story is told in the third person with a historical backdrop. *Adulthood Rites* focuses on the male, Akin, and is a story told in the third person from a distance. The final novel, *Imago*, focuses on Jodahs, the first construct child who turns out to be ooloi. The story is intimately told from Jodahs point of view. The last novel is written in the first person, as the third sex has an overall understanding. Together with the main character's perspective in the three novels, the changes in human beings and gradual alienation become obvious to the reader and allude to the irrevocable evolution: the all-seeing construct ooloi finally finding its form.

At stake in Butler's future world is the 'development' or 'evolution' of mankind. Humanity has outgrown its *raison d'être*.[7] An extra-terrestrial species, the Oankali, saves several individuals from various parts of the world after a worldwide, cataclysmic atomic event. However, their rescue comes with a high price in that the aliens make great demands on the humans. The main protagonist, Lilith, asks her alien rescuer: "I want to know the price of your people's help. What do you want of us?"[8] The survivors not only have to change their behaviour and social structures but are also expected to interact sexually with the alien creatures if they want to reproduce.

The Oankali way of life is concerned with co-opting and crossbreeding with other species from myriads of planets across the universe. They change continuously, that is, they evolve and enhance thanks to the intricacies of

their reproductive system and their urge to investigate new genetic material. The Oankali have three sexes: male, female, and ooloi, this third being neither male nor female, and is completely different from both. The ooloi are essential to Oankali reproduction, which involves all three sexes. By extracting gametes from both male and female, an ooloi then induce fertilization within its own body before replacing the new zygote into the female and chemically stimulating the womb for bringing the new life to term.

A price for human survival is the genetic manipulation which leaves males and females of the original species repulsed by one another. The ooloi 'marks' the members of the family group with a scent that connects them as an emotional unit, why also sexual 'unfaithfulness' is impossible in the Oankali world. When a human is mated with an ooloi they are forever changed and can no longer stand the scent and touch of another human without an ooloi present to mediate the gap. When the ooloi touch human beings, they thereby change them.[9]

Octavia E. Butler: "all that you touch you change"

As a feminist-oriented author, Butler used speculative fiction as a thought laboratory to explore the life possibilities of women and men, power structures and violence, limits, and possibilities – and experiments going wrong. In the book simply entitled *Octavia E. Butler* (2016), Gerry Canavan analyses her fictive worlds. He also writes about her impact on other authors and states that Butler "told us what would happen – 'all that you touch you change' – and then she touched us, fearlessly, brave enough to change us".[10] Cohabitation forms and gender expectations serve as catalysts to shed light on difficult contemporary areas of debate. In novels and short stories, Butler examined human prerequisites, capacities, and conditions, mainly by changing the prerequisites to review what might be possible and difficult for human beings.

One profound characteristic feature in Butler's narrative strategies is her use of 'the monstrous'. In *Lilith's Brood*, the human survivors are forced into interaction with alien creatures having – at first and second sight – monstrous bodies. It follows that the offspring will be a combination of humans and aliens. They are in part human beings but have tentacles all over their bodies. The characters naturally display great resistance to these interactions. Human resistance against symbiosis with the alien race is deeply rooted in purely aesthetic notions of what is considered beautiful versus repulsive. The theme of resistance also becomes visible through

a human-centred worldview that places the human characters populating Butler's world at the pinnacle of evolution. It takes a long time for the main characters to see through what in their view is a monstrous exterior. Some characters eventually realise that caring and even loving individuals are hiding inside these grotesque alien bodies. Amber Lea Strother writes in *Speculative sexualities and futuristic families: Representations of reproduction and kinship in science fiction* (diss., 2017) that in speculative fiction, "representations of reproduction have tended to rely on depictions of artificial reproduction as 'unnatural' and reinforced the threat of developing technologies through images of monstrous mothers and horrific births".[11] Strother writes that in speculative fiction, moving away from traditional depictions of

> monstrous mothers and horrific births, images of non-normative reproduction in science fiction can help to redefine the concepts of woman and mother, man and father, and further challenge the limiting ways in which gender and reproduction have been defined by the physical body.[12]

Lilith's Brood can be read as an investigation of what might happen if human beings lose control over genetic engineering in the future.

In Butler's speculative fiction, intelligent, empathetic, caring, and loving alien genetic engineers take control of the situation and claim to know the best future path for humans. The aliens conduct themselves with patience, care, sacrifice and a great deal of love for the humans. Even so, the result is problematic from the human perspective. In its known form, humanity is being slowly yet inescapably wiped out. The development is no longer in the hands of humans. The alien race can be interpreted as an allegory of reproductive techniques – or as science itself – as Silver and other transhumanists describe it in their work.[13]

Speculative fiction is an effective tool in Butler's thought laboratory. Her novels are some of the most notable examples of extreme unions constrained by an outside force. Butler previously investigated the theme in *Lilith's Brood* in a short story called "*Bloodchild*" in her collection *Bloodchild and other stories* (1984), which she describes as "a story about an isolated colony of human beings on an inhabited, extrasolar world",[14] with no hope of rescue or help from other human beings. Here, human existence is at the mercy of aliens, and sooner or later they will "have to make some kind of accommodations"[15] with their hosts: "Chances are this would be an unusual accommodation. Who knows what we humans have that others might be willing to take in trade for a liveable space on a world not our own?"[16]

In *Lilith's Brood*, Butler digs deeper into the extraordinary challenges and problems, solutions, and depictions of humanity's difficulties in terms of gender, power, conflict management and technology versus biological life. She develops the slow transformation process further, through several generations, into a previously unknown human-alien form of existence.[17] Among other things, Butler illuminates' conflicts between ethnic groups, examines human (i.e., male) violence through the eyes of an outside species and brings gender-related problems into focus from an innovative perspective.[18]

One of many possible interpretations is presented by Jeffrey A. Tucker. In the article "The Human Contradiction" he argues that Butler's novels are to be read as a satire of human irrationality and folly:

> Readers sensitive to the essentialism in *Xenogenesis*, therefore, should keep in mind Jacobs's response to Zaki's reading, which encourages a reading of Butler's trilogy 'as a metaphor rather than a manifesto', that is, as a description of human behaviour writ large in order to bring attention to the folly of that behaviour. Indeed, *Xenogenesis's* representation of late twentieth-century humanity approaches the satirical.[19]

Furthermore, Tucker interprets the novels as inspired by cold War-era rhetoric in the 1980s, "particularly in the Reagan Administration's delusional statements about achieving victory through nuclear warfare".[20] This, Tucker claims, inspired Butler to write Xenogenesis. Tucker also claims that the trilogy "brings a severe critique to bear on a particular human behaviour – hierarchical thinking – by imagining it as part of humanity's biological hard-wiring."[21]

According to our reading, these elements are important in the understanding of Butler's project. But there is more to it: Butler envisions a future in which technology, weapons and machines have been denounced, being tools of the human hunger for power. The extra-terrestrial beings save a human pillar from doom and create new variations to the human form of life, which the Oankali regard as improvements.[22] The Oankali restore the Earth and the organic life that can be saved after the global nuclear war. The aliens have physical bodies and are thus limited to a certain part of time and space. They have a rich and empathetic emotional life but lack a fundamental understanding of how humans function. In *Technology, Subjectivity, Science fiction: Bodies of Tomorrow* (diss., 2019), Sheryl Vint also lucidly points out that the perspective is turned upside-down as Butler "encourages her readers to see ourselves as the objects acted upon by genetic technology

rather than subjects who choose how to use it".[23] Vint writes that Butler's novels are "potent calls to socio-political action that seem ever more pertinent to our survival as a species".[24]

The Oankali scientific approach serves as an existential driving force. One goal of their existence is to constantly expand and vary genetic material in all conceivable forms. As the process is slow, it takes several hundred years before the Earth is returned to the people – who are expected to share it with their saviours. An advanced future world revolving around unknown, alternative organic life forms is thus shaped, and this way of life, which is unknown to us, wipes out technical aids. This exchange of genetic information, personal characteristics, forms of cohabitation and coexistence on many levels is part of the transformation process that Butler embodies.[25] In Butler's concept, death is significantly delayed for human beings and their offspring thanks to the Oankali knowledge of genetics. The question is not one of eternal life; 300 years is regarded as a reasonable life expectancy.

The essence of the extra-terrestrial race is also to create, nurture and sustain life. The Oankali experience human (male) brutality as frightening and savage. Humanity is saved in the petition at the expense of several kinds of declarations of incapacity. The Oankali believe that the human species is incapable of handling the great freedom that they have previously enjoyed and therefore limit their opportunities for influence in the future world in matters of lifestyle, forms of cohabitation, definitions of good standards and what is good or bad from an ethical point of view. The variations of life on Earth appear to be extremely unique and are therefore valuable for the Oankali to preserve. Weapons and technology are banned from the future because weapons destroyed the Earth and put humanity in the state in which the Oankali found them. Metal is an unnatural material for which these extra-terrestrial geneticists have no use whatsoever.

In *Lilith's Brood*, traditional gender related expectations are simultaneously challenged and strengthened. Family life in the human-oankali-groups is 'traditional' in the sense that women care for the domestic chores and the children. while men normally hunt and wander, fight, and rape; they create weapons and build hierarchical societies. Men can choose to stay or leave in the new constellation of family groups. There "will always be many more females and ooloi than males" to take care of the offspring, Nikanj, the ooloi in Lilith's family, states.[26] The Oankali share the work and burdens as a family. The female is bigger than the male, as is often the case in the animal world. Human males are seen by the Oankali as being

extremely dangerous and difficult, and the Oankali expect very little from them.[27] They are allowed to wander, and there are few demands on them as active parents. The Oankali and the family group manage very well without irresponsible men. Nikanj and Lilith discuss the rootless men because they understand that their son Akin will become a rootless young man one day. Akin is the first of his kind and Nikanj explains to Lilith: "Did you think your children would only *look* different?"[28] The changes that Butler shapes in *Lilith's Brood* will continue to pose challenges for both individuals and groups.[29] The protagonists are experimented on in several different ways; biologically, psychologically and socially. And the 'scientists' performing the experiments, the Oankali, has no means to fully control the results.

Let us now investigate the naming in *Lilith's Brood* and which clues to interpretation Butler has hidden in her naming.

Lilith: The First Woman

> What time is it, what year is it,
> Who am I, what is my name?
> Erik Lindorm, *Judgment Days* [30]

In *The Rites of Passage* (1960), Arnold van Gennep argues that every culture shares a common structure of ritual practice. This structure is divided into three stages: rites of separation, rites of transition (or liminality) and rites of incorporation, which serve to prepare the initiand for change – be it socially, biologically, or culturally.[31] Applied to Butler's trilogy, each book reflects one of the three different stages of passage rites, which elucidates the becoming of a new race. Butler also engages each main protagonist in personal rites of passage, using narrative and character naming to enhance the development within each book and throughout the trilogy.

In *Dawn*, Lilith awakens disillusioned and scared, not knowing for how long she has been sleeping. She has lost everything she once knew and is now forced to leave her old life and learnings behind. According to van Gennep, the rite of separation is where the initiand goes through a metaphorical death, a clean break. Butler emphasises this through the birth of the new Lilith in a place very much like that of a womb in which she has been nurtured back to life and health. Our protagonist tries to orientate herself and make sense of everything. She finally meets another living being:

> ...and what had seemed to be a tall, slender man was still humanoid, but it had no nose – no bulge, no nostrils – just flat, gray skin. It was gray all over – pale gray skin, darker gray hair on its head. The hair grew down around its eyes and ears and at its throat. There was so much hair across the eyes that she wondered how the creature could see. The long, profuse ear hair seemed to grow out of its ears as well as around them. Above, it joined the eye hair, and below and behind, it joined the head hair. The island of throat hair seemed to move slightly, and it occurred to her that that might be where the creature breathed – a kind of natural tracheostomy.[32]

Lilith eventually realises that she is on an alien spaceship, surrounded by the strangest and ugliest beings she could ever imagine. She understands that what she first believes to be hair is tentacles; their entire bodies are covered in moving tentacles.

The aliens, the Oankali, inform Lilith that she has survived the cataclysmic war on Earth and that she will live. She understands that she has been chosen to be a leader of the people and the first mother of a new species: a crossbred species that is half human, half alien. Lilith learns that her future family will consist of herself and a male human, a male and a female Oankali and, finally, an ooloi. The optimal existence entails harmoniously living as part of a deep physical and mental communion with every other living being. Tucker writes:

> Butler's aliens are both colonizers and a utopian collective, while the captured/saved humans are both admirable survivors and ugly xenophobes. Lilith Iyapo, the main character in *Dawn*, is both the mother of a new race and a Judas to humanity. In the process of reading the trilogy, we confront and negotiate these contradictions, as Butler prods us to move beyond old dilemmas and imagine a different future.[33]

Lilith's mental process and training for becoming the first mother in a new, futuristic, and partly non-human world denote the take-off in Butler's trilogy.

Butler's choice of name for her protagonist associates her with the mythological Lilith, alluding to the first mythic woman, who according to Jewish mythology was Adam's first wife but was created neither as her husband's helper nor from his ribs. She was created at the same time as Adam, as a fully equal creation. The first two chapters in the Book of Genesis describe two very different and contrasting creation acts. Here we examine one verse from each chapter.

Genesis 1:27 So God created humankind in his own image; in the image of God he created him: male and female he created them.[34]

Genesis 2:23 The man-person said, "At last! This is bone from my bones and flesh from my flesh. She is to be called Woman,[35] because she was taken out of Man.[36]

In *Genesis 1:27*, the well-known lines about God creating man and woman simultaneously are found: Of mud he shaped them, in his image, and as equals they were given the land before them.

Genesis 2:23 is a different version of the same story about how Adam and Eve came into the world. However, in several modern versions of the text, Adam's surprise and joy are uncharacteristic.[37] For example, when he states that "[t]his one, at last, is bone of my bone and flesh of my flesh; this one will be called 'woman,' for she was taken from man"[38], the phrases "This one" and "at last" testify to the fact that something happened earlier that the myth does not reveal. Between the creation act described in *Genesis* chapter one and the second creation act in chapter two, the stage opens for the entrance of Lilith.

The name Lilith was first recorded in the Sumerian epic poem *Gilgamesh* and the Huluppu-Tree around 2000 BCE.[39] Her name and features are thought to derive from Mesopotamian demons called lilû (feminine: lilītu), meaning spirit. A Jewish cult existed as late as the 7th century BCE, within which the evil of Lilith was believed to have escaped by wearing an amulet inscribed with the names of specific angels,[40] and in Hebrew, the name Lilith[41] is connected to *laylah*, meaning night.

The Christian tradition has not paid much attention to the discrepancy between the two narratives in *Genesis*. However, in Jewish folklore, there are many stories about what happened at the time between the first and second acts of creation. Lilith is an important archetype in the Jewish storytelling tradition and in mysticism.[42] The earliest recorded written story about the mythological figure of Lilith is found in *The Alphabet of Ben Sira* – a Midrash from the 10th century BCE.[43] This story portrays Lilith as presumably the first wife of Adam according to early Hebrew legends and the two Genesis versions of creation. Genesis 2:22 describes how Eve was created from Adam's rib, whereas the earlier passage of 1:27 already mentions the making of a female. *The Alphabet of Ben Sira* cites the words of God in the passage of Genesis 2:18 "It is not good for man to be alone", and hence God creates Lilith, the first woman, out of clay. Adam and Lilith soon begin to fight – Lilith will not succumb to the will of Adam:

> She said, "I will not lie below," and he said, "I will not lie below, but above, since you are fit for being below and I for being above." She said to him, "The two of us are equal, since we are both from the earth." [44]

Neither of them is willing to give in. When Lilith realises this, she pronounces the Tetragrammaton[45], the ineffable name of the Lord, and flies away – leaving Adam and the Garden of Eden. Adam then turns to God and asks him to send the three angels Senoy, Sansenoy and Semangelof to bring her back, to which God replies: "If she wants to return, well and good. And if not, she must accept that a hundred of her children will die every day." [46]

Genesis 1:27 and the part about Lilith as Adam's wife is re-read and further interpreted in *The Zohar* – a kabbalistic volume written by Moses de Leon between 1250–1305, based on earlier sources. In *The Zohar*, Lilith is connected to her male equivalent, Samael – one of the Devil's many names – with whom she forms an unholy alliance to produce a demonic brood. As God castrates Samael, Lilith is destined to seduce men at night to produce progeny. [47]

In the Book of Isaiah (34:14), a prophetic Hebrew writing of the Old Testament also referred to as First Isaiah (742–701 BCE), Lilith is mentioned as a dweller, and in *The Songs of the Sage* (40–10 BCE), part of the *Dead Sea Scrolls of Qumran*, the name Lilith appears in a list of demons and monsters. A few references to Lilith are found in the *Babylonian Talmud* (500–600 BCE)[48] and the belief and scarcity amongst the Babylonians also manifest in incarnation bowls (6th century BCE) inscribed with protective spells in Aramaic script, with references to the *Talmud*.[49]

The historical path of Lilith can be traced back to Mesopotamian myths and Babylonian demonology, portraying her as a demoness.[50] However, the very first mythological woman refused to submit to man and his God [51] and preferred to live outside society's admittedly safe yet controlling housing.[52] The punishment was monumental and, as a result, her reputation plummeted.[53] Lilith became a she-monster, a screech owl, a night-hag, a snatcher and a seductive demoness with a faiblesse for killing infants and exterminating expectant mothers. She was, in effect, chaos and destruction. At night she left her desolate, barren place in search of new victims, craving freedom.[54]

Lilith was eventually rejected from the mythological world until her resurrection from oblivion in the 1970s and onwards. There were only vague traces of a night demon – a grave danger to men due to its unbridled sexual appetite.[55] The consequences of this mythological distortion for narrative

traditions and interpretations of 'male' and 'female' are difficult to estimate. Other mythological role models, such as Eve and the Virgin Mary, have not been of much help to women in the world as they were designed to strengthen patriarchy.[56] Hence, the return of Lilith, re-emerging as a strong and mythical mother figure, is both inspiring and important from a feminist perspective. It is therefore only logical that the women of our time have raised Lilith from the dead. She is described as a modern woman who left the wonderful paradise, the man and his God who tried to oppress her. The punishment was in order: she became the first demon of archaic mythology. Lilith is recreated in the image of her creator. She resurrects from her long absence as a late 20th-century dream, or ideal image as a single mother, as someone who manages to pursue a career, educate, and support her children in a barren world outside the well-organised traditional society and the Garden of the nuclear family. When Lilith returns to literature it is not as man's helper. She is not created from man's ribs and does not tempt anyone with apples or any other fruit. Neither does she give birth to sons or daughters without preluding sexual intercourse.

Lilith's full name in the novel is Lilith Iyapo. Iyapo is an African male name, with the interpretation 'many hard situations' and/or 'many troubles'. The name appears in a Nigerian folktale, "Blame it on Adam", retelling the biblical tale of Adam and the forbidden fruit.[57] The moral of the story is never to blame others for the choices we make but answer to them ourselves. Furthermore, the word 'apo' (gr.) may translate to 'away from', 'descended from' or 'of origin'.[58] This connects the mythological Lilith to Butler's Lilith as ancestral mothers and alludes to the struggles in finding ways to survive despite unfavourable situations and choices. It also mirrors the complexities of hierarchical (patriarchal) structures through time; mythological Lilith is disowned because of her troubling manners (i.e., wanting to be treated as an equal to Adam), whereas Butler's Lilith is accepted by the Oankali only if she cooperates.

Lilith is a mythological figure who has been redefined with clearly stated goals to revolutionise patriarchal structures and portray women as strong and rebellious role models.[59] Hence, Lilith becomes a catalyst in which archaic, patriarchal, social, and scientific practices are revised, reformulated, and dismantled.

The Dawning of Lilith

In Theorizing Myth: Narrative, Ideology, and Scholarship, Bruce Lincoln approaches the study of myth as a category, arguing that myth is ideology in narrative form.[60] Ancient mythic narratives lost status up until the Renaissance as they were not commonly highly regarded. This led to narratives becoming folk tales or legends with a primary aim to amuse, which Christians came to set in opposition to the Bible, i.e., their authoritative non-mythical story.[61] Hence, politically, socially, linguistically, culturally, and epistemologically, myths have been used as privileged narratives on which the foundations of nations lie. Furthermore, myths reflect the innermost truth of life, which shape the human perception of reality and how and why humans behave in a certain way.[62] With this at hand, considering Lincoln's theoretical approach, the title of Butler's collection volume, *Lilith's Brood*, is multi-layered. The title refers to Lilith becoming the first mother and the story of her heirs – the future children. However, the title also refers to the demonised mythological Lilith and her heirs of demon babies. The word 'brood' derives from *incubus* (lat.) and *incubare* (lat.), meaning nightmare and to lie upon, to brood.[63] A female demon, a succubus, who seeks intercourse with a sleeping man results in demon offspring as well as the birth of witches.

'Brood' can also be interpreted as Lilith's nightmare – as she awakens and finds herself alienated from her peers and hence becomes the mother of a new breed. Just like Lilith in Jewish mythology, she must enter into an agreement with the Oankali/God. As in mythology, Butler's Lilith is viewed by human males with some scepticism in that she is powerful and dangerous and thereby unpredictable.

> It's as though there's something in her trying to get out.
> Something terrible.[64]

The agreement to breed with the Oankali is as much a choice of accepting the offer to belong and stay healthy when creating the future of genetically engineered people as it is a turning her back on human life and, hence, a self-imposed barren lifestyle. Lilith's persuasion to accept the agreement is that enslavement or imprisonment would be worse, although her bitterness at not being able to fully choose at times overrides her.[65]

This bitterness, which can also be found in Jewish mythologies, is portrayed by Lilith's urge to leave her chosen barren wastelands in search of jus-

tification for the seduction of men. Although Butler's Lilith chooses what she believes is the Garden (of Eden), which is her only way of being a part of the future, she is portrayed by resisters as a devil and deceiver who seduces other humans to persuade them to join the alien society. Resisters are those who refuse to take part in the project of miscegenation with Oankali by forming separated rebel colonies on earth. They are granted life, but they are made sterile by genetic manipulation and cannot reproduce a species Oankali consider 'flawed'.

As in ancient mythologies where the powerful female aspect is associated with death and/or destruction, Lilith envisions the female archetype of evil as she is seen as a threat to the survival of humans, breeding alien demon offspring. Lilith's human partner in the new family, Tino (Augustino), also a former resister who rethinks his possibilities in this new life situation, wonders why Lilith has not chosen to change her name, given that it is laden with bad connotations. Restituta Castiello argues that Butler's Lilith explores an unedited aspect of a mythical representation of femininity that has, alternatively in history, stood for a negative or a positive role model. Furthermore, she writes that Butler doesn't "stop by simply re-writing or re-appropriating a negative model translating it into a positive sexually powerful myth meant to represent a horizon of perfectibility for women".[66] According to Castiello

> Lilith in *Xenogenesis* is able to convey a responsible and situated account of origin stories by virtue of her being an individual who defies categorization and crosses the borders.[67]

The correlation between Lilith as succubus, devil and betrayer indicates that a woman's choice is never favourable. Luce Irigaray writes that when there is no female, divine trinity and since women lack "a divine made in her image she cannot establish her subjectivity or achieve a goal of her own. She lacks an ideal that would be her goal or path in becoming."[68] Butler challenges previous categories and makes Lilith a new kind of woman and 'first mother'.

The Aliens: Oankali and Ooloi

The Oankali are genetic masters, prone to solve the human's self-destructive lives, which they refer to as the human contradiction. They have been around the universe for aeons and consider their crossbreeding with

humans mutually beneficial. One possible interpretation of 'Oankali' is that the name of the aliens is constructed from three elements: O-an-kali. The first part is 'O' as in Omega – the last letter in the Greek alphabet. In *Revelation* 1:8, God speaks to the prophet:

> "I Am Alpha And Omega, The Beginning And The Ending," saith the Lord, who is, and who was, and who is to come, the Almighty.[69]

The next section in the word is a privative prefix, 'an-', which stems from an- (gr.), meaning 'not, without'. This prefix thus combines 'omega' with the third part of the alien's name, 'Kali'. This is one among many names of Devi, the Hindu mother-goddess, in her black-skinned death aspect. In Sanskrit, Kali translates as 'the black one',[70] which is related to the feminine aspect of 'kala' (sanskr.), meaning time (as destroyer). Kali emerged from Durga, the warrior goddess, to join her during the most intense battle against evil. which is described in the epic *Devi Mahatmyam* from about 1000 ACE.[71] In mythology and iconography, Kali is often the consort of Shiva but is never his subordinate. She is often associated with sexuality and violence, although she is also regarded as a strong mother figure. Her dual personality is part of the destroyer aspect: from destruction comes rebirth.[72] In *Lilith's Brood*, Butler mirrors the dual personality of destruction and rebirth, by giving the humans a chance to survive through the rebirth of Lilith. Also, Butler creates a narrative ending with Jodahs; the first construct.

The ooloi is the third sex of the Oankali and are refined genetic manipulators. They have made all humans sterile and breeding impossible without ooloi intervention. The word 'ooloi' could be created from the prefix 'oo-' combined with '-loi' to form a word: 'oo-' is a word-forming element meaning 'egg' or 'eggs'. It derives from ōon, (gr.) and is cognate with ovum (lat.) and egg (on), which stem from the root 'ōwyo'.[73] The word loi (fr.) translates to law, legislation and/or legal code. Connecting the name ooloi to eggs and Latin ovum in combination with French loi generates further interpretations of Lilith as the first mother and a biological carrier of a potentially prolific reproductive system, to pass on the genetic legal code.[74] Furthermore, the word 'ooloi' may be a contraction of 'Oankali', which etymologically suggests a bend or shift in genes: the left-out word, *ankah* (sanskr.) for hook, bend, or angle, makes the interpretation viable. Significant features and character traits of both intelligence and aggression exist in both '-kali' and 'Lilith' and are traded etymologically. Hence, the fatal combination of

intelligence and aggression, as put forward by the Oankali as the human contradiction, continues to challenge the alien race.

Adulthood Rites: Akin

The Oankali wait a long time for the first male construct – offspring from the unions between humans and the Oankali – to be allowed. Lilith carries and gives birth to the child. The human father, Tino, is long since dead. This child, and the protagonist in the second novel, *Adulthood Rites*, is Lilith's son Akin. As the first male human-born construct, Akin is an experiment. The Oankali are afraid of human males because of their aggressive ways and the deep conflict that they sense in them.

Butler's choice of naming Lilith's first son Akin not only elucidates Lilith as his mother by blood but also that he is the first human-born male construct.[75] His name refers to 'related by blood', as well as 'embrace differences'. The word Akin is a contraction of *a* and *kin*, meaning *of/from kin* (Middle English),[76] which indicates that the two of them are allied by nature, whereas the letter 'A', alpha (gr.), marks the beginning of everything. However, the becoming of Akin indicates that the way of living will have to change – females will raise children along with an ooloi – and a construct male will be present for mating only and will not settle:

> Most Human males aren't particularly monogamous. No construct males will be. [...] Males will come and go as they wish and as they find welcome. [...] A home like this would be a prison to them. They will have what they want, what they need.[77]

Hence, the conception of the 'new' beginning is mainly a validation for males to come and go as they please. Their non-monogamous tendencies and cravings for freedom thus become the foundation of society, where females are, yet again, allocated to breeding and raising children. The trading also included Lilith being unable to choose whether to bear children if she decided to stay amongst the Oankali.

Akin is not just *kin* to Lilith but is also *kin* to humans and the Oankali. He is kidnapped from his original parents, i.e., Lilith and the family group, as a child and is brought up among the human resisters. As an experiment, the Oankali decide to let him stay among the resisters during his upbringing as they are curious about the information and knowledge he could bring back later in life. Hence, before his metamorphosis Akin appears to be

human. All construct children experience a metamorphosis, corresponding to the puberty of humans. The process is described as overwhelming, painful, and confusing: nobody knows how the child will turn out in the end. It is an experimental process where experience is scarce for the first construct children as well as their parents who are supposed to guide the young through the process. Akin grows up to become someone who finds it difficult to belong to either of the societies; he strives to gain an understanding of both cultures and defends both ways of living. He is a genetic and socio-cultural interbreed.

> The man stood staring at him, peering first from one angle, then moving slightly to peer from another. Akin had changed after all, had grown up.[78]

> Show me your tongue.[79]

The sequence portrays Akin revisiting the town of Phoenix[80] where he was raised. Upon his return, Akin is not recognised in the village. He is asked to show his characteristic Oankali tongue, which is the only visible attribute that differentiates him from humans.

In *Adulthood Rites*, Akin learns about the differences between Oankali and humans and finds that their divergent perspectives are not compatible. He is aware that both female and male aspects are needed for one to fully become an entity and that males are not enough to create the future. Being kin to both Oankali and humans, the rite of passage for Akin is part of the liminality – he stands on the threshold of the old world and a new future. He is part of what he is leaving and part of the future as he struggles to find his identity in a society that is in as much liminality as himself. He is the beginning and the end – the Alpha and Omega united. The transition rite enables Akin to gain enough knowledge and courage to make changes for the human resisters. They are given a new home on Mars and, Akin is the one who understands human beings' desperate need to create their own lives.

Imago: Jodahs

Imago is the last novel in Butler's trilogy and marks the final stage of the reproductive process imagined in her novels. The protagonist in *Imago* is Lilith's child Jodahs.[81] Jodahs is a mistake: the ooloi has made an error and created a construct that is an ooloi. This has not yet been accepted as a next step of reproduction in society at the time of Jodahs birth. Jodahs

is Lilith's firstborn ooloi who, during the metamorphosis, becomes the third sex. However, the first construct ooloi is dangerously unknown and features human and Oankali as well as masculine and feminine aspects, in entities that combine the good and the bad from both species.

> Human-born males were still considered experimental and potentially dangerous. A few males from other towns had been sterilized and exiled to the ship. Nobody was ready for a construct ooloi. Certainly, nobody was ready for a Human-born construct ooloi. Could there be a more potentially deadly being?[82]

'Imago' is also the final stage in the rites of passage and reveals the outcome in the title. The word imago, meaning 'final or adult stage of an insect', comes from the Latin 'image, likeness', which stems from the word *imitari*, meaning 'to copy, imitate'.[83] Thus, the name is associated with the larval stage of an insect as it becomes the true representation of its species. *Yodh* is the name of the tenth and smallest letter in the Hebrew alphabet and is proverbially used in the Greek alphabet to mean the smallest/the least part of anything (iota).[84] *Yodh* may also be connected to the Sanskrit word *Yoddha*, meaning warrior, and the Hebrew name *Yodea* meaning 'the one who knows'. Allusions can also be made to the son of Jacob and the traditional eponymous ancestor of one of the tribes of Israel.

Jodahs' prime mission is to keep the peace and create an understanding between the human and Oankali cultures. This is revealed through its given name; it is a warrior of peace, i.e., a paradox of previously unknown features combining male and female aspects in a third sex. The human contradiction is no longer only human, as Jodahs is a combination of good and bad. As a first ooloi construct, it embodies the final stage of genetic engineering, a true all-seeing representative of its species and a born leader. It diplomatically intertwines the lives of Oankali families and resisters on Earth – like Akin in the all-human society on Mars – which according to the rite of incorporation is the final stage and the start of a new era as a new being. *Imago* ends with Jodahs planting the first new seeds from which a new world will grow under its supervision: "I had expelled it, I felt it beginning the tiny positioning movements of independent life."[85]

'Human beings fear difference [...] Oankali crave difference.'[86]

Throughout the trilogy, the hardships between the Oankali and humans are mediated by Akin and Jodahs as they learn about the differences in their respective customs and values. This also helps them to acquire knowledge about how to maximise any future manipulations of genetic and mental potential. The Oankali fear 'the human contradiction' as they consider it to be a fatal combination of intelligence and hierarchal behaviour that led them to self-destruction.[87] As genetic manipulators, the Oankali are in control as the creators of the future. It becomes obvious that they are afraid of the unknown as well: at first, they don't know how to deal with Jodahs at all. The Oankali experimental project is built neither on true expertise nor on proven experience. The genetic engineers are taken by surprise time after time when the offspring turns out different from the intentions.

Not all humans succumb to the Oankali way of life, they choose to live as resistors. According to Jewish mythology, Lilith is banished from the Garden of Eden, while Adam, being adamant, is granted a new and obedient wife. Like Butler's Lilith, the mythological Lilith chooses the unknown rather than an already established yet unjust existence in paradise, whereas Adam, like the resisters in *Lilith's Brood*, chooses the familiar. The Hebrew word Adam means man[88] (mankind). Although no Adam per se is present in *Lilith's Brood*, man, as in human, can be used as a metaphor for mankind (i.e., Adam), which in this case suggests that the cultural clashes between humans and the Oankali denote a fear of change and an unwillingness to cope with fear in any other way than through regression and resistance.

Lilith's children, her brood, choose change. Tucker approaches this conflict between aliens and humans,[89] by elucidating the passage in which Lilith explains to Akin:

> 'Human beings fear difference,' Lilith had told him once. 'Oankali crave difference. Humans persecute their different ones, yet they need them to give themselves definition and status. Oankali seek difference and collect it. They need it to keep themselves from stagnation and overspecialization. If you don't understand this, you will. You'll probably find both tendencies surfacing in your own behavior.' And she had put her hand on his hair. 'When you feel a conflict, try to go the Oankali way. Embrace the difference.'[90]

Grown-up Akin comes to embrace differences and everyone's right to choose their way of life. He leaves Earth to give the resisters the possibil-

ity of a life set in a new world. When Jodahs' metamorphosis is complete it also understands both the human and the alien perspectives, as well as female and male ones. Jodahs comes to control the aspects of illness and health, new generations, and new worlds. It shares the features and abilities of human and alien lifeforms. In its memory all genetic knowledge the Oankali have collected during aeons are stored. With Jodahs, evolution is inevitable.

Final Broodings

The aliens in Butler's speculative fiction are living, conscious beings who want to evolve and reproduce by using human beings in their genetic trade. Though, the narrative exposes flaws in their excellence: several times the results come as a big surprise for the genetic experts. Our analyses of the names brought us to the realization that Butler's naming was carefully chosen and well thought through; the names reinforce the roles of the protagonists in the reproductive development of the novel trilogy. By naming the protagonists as well as the antagonists in this way, Butler has offered the keys to the course of action. The reader is thrown not only into a dystopian future but also into speculation about the future of humanity, in which mythologies of different religions and historical periods meet, ultimately amounting to different symbiosis and giving rise to new species on Earth and beyond.

Through the mythological exposé concerning Butler's choice of names for her characters, we found intertexts to mythologies. The only thing that was clear to us before we started working on the material was *Lilith*. Digging into Butler's way of naming the protagonists deepened our understanding of the mythological layers of her novels. Furthermore, this is an approach that may interest new categories of readers. It can also illuminate a slightly different path to interpretation. Experienced readers can directly associate the novels with the myths about Lilith. Younger and inexperienced readers seldom make these connections or find the narrative clues to significant perspectives embedded in names such as 'Lilith', 'Akin', 'Jodahs', 'Oankali' and 'ooloi'.

In *Lilith's Brood*, change is as inevitable as it is constant. The alien race admittedly saves humanity from complete self-destruction and restores the planet. The humans who are saved are sent back to their home world. The major conflict in the novels can be said to be what may happen if human

beings are not themselves the genetic engineers but those engineered upon. While the humans that the Oankali managed to save are given back their lives, they pay an extremely high price in the long-term: the Oankali cross-breeding with the humans. Those who resist are sterilised, although like all survivors they are allowed to live extremely long and healthy lives. Perhaps in this way, the two opposing human characteristics – high intelligence and hierarchal nature – as understood by the Oankali, would be either eradicated or evened out in the future.

The intricate storytelling which balances between mythology and history is elucidated by different eras and rites of passage. Butler's protagonists share the fear of the unknown, the courage to embrace change, and the means to create the future – despite cultural and social differences. The mythological Lilith was demonised and banned from Eden and had to engage in new relationships and agreements to survive and thrive as the appointed first mother to create a new breed. From a biblical perspective, the children of the night as creations of the mythological Lilith are pure evil and as unwanted as Lilith herself. Butler's Lilith is strong and adaptable and is chosen by the Oankali as a kind of ancestor of a new genus – a symbiosis between humans and the Oankali. Through her opposed life choice, Lilith is eventually portrayed by the resisters as a betrayer. Hence, Lilith can be interpreted as a mythological demon even in Butler's future world. Butler's Lilith was captured and chosen by the aliens to become the first mother of a new alien breed and genus. Restituta Castiello also argues that Lilith is a character that falls short of any expectation:

> Neither a mother goddess nor a convincing demon, neither a collaborator nor a resister. But by virtue of her being so defying and displacing, she represents the 'otherness' (or 'alienness') of monstrosity able to disclose the power of oppressive discourses wherever they are.[91]

Lilith as a mythological character throughout time and the Lilith in Butler's novels gain historic immortality as first mothers of new breeds and incubators of non-normative offspring. In order to attain a certain degree of freedom, they also choose a continued existence in an unfamiliar world – although this chosen life is controlled by obligation-laden 'agreements'. The differences in narrative perspectives are the inevitable result of ever-changing cultural norms and gender expectations throughout time, thereby dictating to whom the power of recontextualization and storytelling belongs. By portraying Lilith as a perennial antecedent,

allowing her to become the womb for future generations to come, Butler creates a metaphorical butterfly out of a mythological caterpillar – from the breaking of *Dawn*, through adolescent *Adulthood Rites*, to the final stage of *Imago*.

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Kevin Pinkham

"Would You Change Things?": Natal Choices in *Arrival* and *What Happened to Monday*

We all exist. That may seem like a tautology, but when one considers the conspiracy of chance and choice that contributed to our existence, one may marvel at such a statement. Not least of all in the chain of events that led to our existence is the fact that at least one person, at some time before we existed, made a choice that ensured our existence, despite several factors that could have precluded that choice.

The reasons for choosing to have a child are multifaceted, from the financial, to the religious, to the societal (e.g. children can assist in the family business, fulfill religious injunctions—such as to "be fruitful and multiply"[1]—and meet familial and societal expectations). The reasons for not having a child are also complex and are often a different response to the same factors (e.g. raising children is expensive, many people choose to reject religious directives, and some pursue a desire for independence in decision making[2]). However, in Western culture, as Christine Overall points out, "it ironically appears that one needs to have reasons not to have children, but no reasons are required to have them".[3] In other words, the default position for choosing whether or not to have a child, in Western culture and arguably for much of the entire world, seems to be resoundingly in favor of procreation. Gender reveal videos abound on social media, the January 2012 Monthly Labor Review from the Bureau of Labor Statistics indicated that between 2010 and 2020 child day care services would be one of the fastest growing industries in the United States[4], and Article 16 of the UN Universal Declaration of Human Rights declares that "Men and women of full age, without any limitation due to race, nationality or religion, have the

right to marry and to found a family."[5] For many of us, having a child is a 'blessed event' that seems to be as natural as breathing.

Regardless of the reasons for choosing to have a child or to avoid procreating, the impact of having a child—on the parents, the community, and ultimately the world—can often be far greater than initially presumed, both positively and negatively. This is perhaps why, for many people able to debate whether to have a child, various states of political turmoil, environmental threat, or anxieties over disease and potential injury may factor into that debate. For instance, a *New York Times* article from 2018 considers the ethics of having children in an era of global climate change and ponders on both the effect that more humans would have on an already overloaded environmental system and the effect that overloaded system would have on more humans.[6] In June 2018, The Guardian featured an article entitled "Would You Give Up Having Children to Save the Planet? Meet the Couples Who Have", which offered profiles of a number of young adults who had chosen to be sterilized or go childless to prevent the environmental impact having a child creates.[7] After the election of Donald Trump as President of the United States, demand for intrauterine devices (IUDs) rose significantly in the US. According to AthenaHealth, a company that provides electronic records services to health providers, office visits requesting either management or insertion of IUDs rose by about 19% in 2016 between October and December[8], while Planned Parenthood reported a staggering 900% increase in requests for IUDs after the election.[9] While those numbers most likely reflect the concerns held by many women that a Trump-led Republican administration would threaten the availability of birth control and abortion, leading them to seek an option that would outlast his tenure as President, it is not outside the realm of possibility that many of those women felt an aversion to the idea of bringing a child into a world with Trump as President of the US.[10]

While some of the non-parents profiled in *The Guardian* article are avowed antinatalists, those who believe that bringing sentient life into existence is a negative—even harmful—act, not all of those featured in the article are against all procreation, just their own. These non-parents aim to reduce the population of the Earth, not eliminate it, in order to slow down the terrible environmental impact humans have on the planet. Science fiction has long imagined the nightmare scenarios of antinatalists: dystopic futures of an Earth ravaged by war, climate disaster, disease, or any number of devastating events. Certainly, one does not need to adopt an antinatal-

ist position to seek solutions to any of these scenarios. Organizations such as Population Connection have been advocating for zero or reduced population growth for years and making efforts to encourage better education about and access to family planning services. More radical and immoral choices were made in the United States in the first half of the twentieth century, as sterilizations without the victim's consent were performed in thirty-two states with funds from the federal government, thus inspiring Adolf Hitler to feel eugenic envy.[11]

However, science fiction, like most literature, seems to be invested in a pronatalist position. In other words, if science fiction is the literature of the future, as it is so often identified in the popular imagination, and recognized, if not sanctioned, by critics such as John Huntington, who in his 1975 essay, "Science Fiction and the Future", acknowledges that enthusiasts often claim that "SF prepares us for the future"[12], then there must be someone to continue in the future in order for there to be a future.[13] Certainly, science fiction has imagined non-human and post-human subjects, although it is safe to say that the vast majority of science fiction focuses on a future in which humanity continues to procreate. Novels such as H. G. Wells' *The Time Machine*, Michael Moorcock's *Dancers at the End of Time* trilogy, Olaf Stapledon's *Last and First Men*, and Liu Cixin's *Remembrance of Earth's Past* trilogy, envision a universe in which humans, in one form or another, exist hundreds of thousands if not billions of years into the future. While some writers do envision a world in which procreation is threatened, such as P. D. James' *The Children of Men* or Margaret Atwood's *The Handmaid's Tale*, thus putting the future at risk, ancillary to the conflict of the plot of these tales is the ideology that humanity losing the ability to procreate would be tragic. Therefore, science fiction seems to privilege some form of pronatalism, at the very least by contemplating the ethics and impact of bringing more and more humans into the universe.[14]

But science fiction does not blithely ignore the pain of existence or the environmental impact of population growth. Even in science fiction's privileging of pronatalism, it still has something to say about real world struggles that impact parental choice regarding procreation. One need look no further than the aforementioned *The Handmaid's Tale* or Louise Erdrich's *Future Home of the Living God* to find two examples of feminist science fiction texts that explore the intersections of individual, social, and political choice. Two recent films tackle the realities of existence and the choices made to ensure, prevent, or eliminate it. Both *Arrival* (2016) and *What*

Happened to Monday (2017—released in Europe as *Seven Sisters*), explore the ramifications of existence and the concomitant suffering that comes with it. The antinatalist and rejectionist views of David Benatar engaging in conversation with the more pronatalist views of Christine Overall can help us analyze the, at times, ambivalent positions of these films on existence and parental choices. In turn, the films help us to engage with Benatar's and Overall's positions. Ultimately, the films themselves may, like much of science fiction, prepare us for change—in this case, the changes that come through the choice to have or not to have children.

Arrival

Arrival, based on Ted Chiang's 1998 novella "The Story of Your Life," is the story of linguist Louise Banks (Amy Adams) who, working with a team of others—including physicist Ian Donnelly (Jeremy Renner)—strives to translate the language used by the Heptapods, an alien race that has appeared in twelve locations around the world. At the heart of *Arrival* is Louise's new-found perceptions of time engendered by her internalizing the Heptapods' language, their gift to us. We learn in one scene that the Sapir-Whorf hypothesis theorizes that the languages we learn shape the ways we think, and the film illustrates that hypothesis by revealing to us that just as the Heptapod language is non-linear, so is their view of time. As Louise begins to decipher the language, her sense of time becomes more and more fractured, and through skillful editing, the film reveals to us that Louise has been unstuck in time since the beginning of the film, which is not the beginning of the story. Thus, Louise is given a unique perspective on the story of both her life and the life of her daughter, Hannah (variously played by Abigail Pniowsky, Julia Scarlett Dan, and Jadyn Malone). We linear-bound viewers understand over the course of the film that what we thought were flashbacks are in reality flash-forwards; thus, Louise is able to make informed decisions in the present narrative of the movie because of her perception of future events. She is even able to 'read' her future book on the Heptapod language in order to facilitate her interpretations in the timeline of the first contact story. While the first contact storyline focuses on her role in ending a possible war, the storyline around Hannah focuses on Louise's decision to enter into a relationship with Ian and welcome their daughter Hannah into the world, even though Hannah will eventually die in her tween years (between the ages of 9-12) from a rare disease.[15]

Chiang's "The Story of Your Life" makes the focus of the multiple plotlines more obvious: the birth of Louise Banks' daughter (who goes unnamed in Chiang's novella) and the choices that led to her birth. For many viewers of *Arrival*, the alien first contact story eclipses the story of Hannah's birth and Louise's life, which I would argue is the heart of the film. Viewers who assume the film is primarily concerned with first contact can easily be forgiven: Louise's daughter is featured in none of the official movie posters for the film found online, and in the three most important trailers—the official, final, and international trailers—Hannah appears in brief glimpses in such a way to imply that she is simply Louise's daughter caught up in the chaos of first contact. Toward the end of the film, Ian clarifies for viewers the film's focal point as he says to Louise: "You know, I've had my head tilted up to the stars for as long as I can remember. You know what surprised me the most? It wasn't meeting them. It was meeting you."[16] In other words, the aliens are not the only focus of the film. *Arrival* is also a metaphorical exploration of childbirth and the relationships and decisions that bring us there. For what is the arrival of a child but a first-contact experience with an alien being, one in which parents have to learn how to communicate with this new entity and are often forced to learn how to interpret not only vocal cries, but also the effluvia that emits from this strange organism?

That childbirth is central to the film is highlighted by the shape of the Heptapod ship, which looks like the profile of a pregnant woman's belly. At the climax of the film, as the world seems headed toward war and humanity appears doomed, the ships begin to recline, as if they were a pregnant woman in the throes of labor. Once Louise can convince the Chinese General Shang (Tzi Ma) to share his team's information and stand down from a state of military readiness by calling him on his cell phone to tell him his wife's last words, information Louise finds out later in the film, then humanity appears to be at the cusp of a new unification that will ultimately benefit the Heptapods in three thousand years when they will need humanity's help. Having given birth to the new unified humanity with Louise as midwife, the Heptapod ships move upright again, then disappear, presumably returning home to await the eventual arrival of the help humanity will then be able to offer.

Arrival and David Benatar

Louise's choice to give birth to Hannah will be explored in more detail later, but it would be wise to turn now to David Benatar's work in order to

better understand the antinatalist repercussions of Louise's choices and, in turn, to better engage with Benatar's ideas found in his book *Better Never to Have Been: The Harm of Coming into Existence*. Benatar's central premise is that "…coming into existence is always a serious harm".[17] In his book, Benatar challenges positions that argue that bringing someone into existence has the potential for good—perhaps by giving birth to someone who could improve the world or even by simply giving birth to someone who has a 'good' life—instead arguing that "…coming into existence, far from ever constituting a net benefit, always constitutes a net harm".[18] For Benatar, the presence of pain, discomfort, boredom, grief, death, and other harms far outweigh what we might optimistically perceive to be the good in our lives. In other words, Benatar argues that bringing children into the world inevitably causes pain, which should be considered immoral.

While Benatar's ideas can seemingly be boiled down to some simple aphorisms, his arguments are far more complex, largely because he understands humans' biological drives to procreate and cultural pressure to do so. Yet he simultaneously presents simple ideas as the starting point for his more complex arguments. With no time to fully explore Benatar's arguments, a simplification must suffice. Benatar argues simply that "(1) the presence of pain is bad" and "(2) the presence of pleasure is good",[19] and then proceeds to point out that while such statements might seem to be a "symmetrical evaluation", they do not account for the absence of pain and pleasure, "for it strikes [him] as true that (3) the absence of pain is good, even if that good is not enjoyed by anyone, whereas (4) the absence of pleasure is not bad unless there is somebody for whom this absence is a deprivation".[20] For this last point, Benatar argues that someone who does not exist cannot be somebody for whom the absence of pleasure is a deprivation. He calls these concepts the asymmetry of pleasure and pain and presents an example of pleasure and pain's asymmetry through a table that explores two scenarios in which a person, X, either exists or never exists. Benatar's example can best be summarized by a simple equation. He aligns the existence of X with both the presence of pain (which he calls 'bad') and the presence of pleasure (which he calls 'good', since if one exists, one will experience both, one presumes). Thus, if we identify the 'bad' presence of pain as negative and the 'good' presence of pleasure as positive, our equation for existence produces a sum of zero in which the positive 'good' and the negative 'bad' cancel each other out. However, Benatar then aligns nonexistence with the absence of pain (which he identifies as "good") and the absence of pleasure (which he identi-

fies as "not bad"), since if one does not exist, one will not experience either. Thus, if we identify the "good" absence of pain as positive and the "not bad" absence as neutral (which could also be the value for "not good"), then the equation for nonexistence produces a result that is ultimately positive, in that the positive 'good' is not negated by the neutral 'not bad'. Benatar justifies his value judgments by saying, "If I am correct then it is uncontroversially the case that [the presence of pain] is bad and [presence of pleasure] is good. However,... [the absence of pain] is good even though there is nobody to enjoy the good, but [the absence of pleasure] is not bad because there is nobody who is deprived of the absent benefits."[21] As he had explained earlier in his book, any absence of pain is a positive, while if one does not exist, then one cannot miss out on any perceived good. Thus, Benatar concludes that existence is always, as he calls it, 'a net harm'.[22]

In *Arrival*, Louise Banks is given an opportunity that none of us have: to see the future. This is an opportunity that provides Louise with information that will inform her choices to have Hannah. Through her flash-forwards, she can see the results of her choosing to begin a relationship with Ian and to reply affirmatively to his question near the end of the film, "Wanna make a baby?"[23] Having witnessed her future and the future of her daughter, Louise is able to say, "Despite knowing the journey and where it leads, I embrace it, and I welcome every moment of it."[24] Her opportunity to embrace pain that she knows is coming, somehow balancing pain and pleasure, is different from the experience that most of us have in which, as Benatar puts it, "[One] cannot tell in advance whether a life one starts will turn out to be one that was worth starting."[25] However, Louise *can* tell in advance; she knows the future and sees the immense pain that will come her and Hannah's way, yet she still chooses to make Hannah with Ian. Louise can make a choice that encompasses the totality of Hannah's life, and presumably her own, although viewers never see Louise's death. Despite the painful impact of Hannah's death and Louise's ultimate divorce from Ian, Louise chooses to ensure that Hannah exists. Indeed, the final, life-affirming words of the film are Louise's response to Ian's question, "Wanna make a baby?": "Yes. Yeah."[26]

Despite Louise's knowledge regarding the relationship of pleasure and pain in Hannah's life, Benatar offers critical questions in our exploration of the film's ultimately pro-natalist message. Benatar's first question would be for whom is Louise choosing? Is Louise's choice to have Hannah for Hannah's benefit, or for Louise's? This question is difficult to answer from simply viewing the film. Considering the amount of screen time that Hannah

receives, she only makes up about 6.52% of the film.[27] Viewers receive mere hints of Hannah's interiority, her thoughts, feelings, and desires. None of those hints indicate Hannah's position on her own existence. Yet the film is framed as a sort of conversation with Hannah, starting with Louise's ambiguous first line, "I used to think this was the beginning of your story."[28] That conversation of Hannah's origin ends about four minutes before the end of the film, with Louise as narrator clearly addressing Hannah for the first time: "So, Hannah. This is where your story begins. The day they departed."[29] Thus, the film can be read as an apology for Hannah's life in which Louise is allowed to present her case for bringing Hannah into existence. Still, we have no clear indication of whether Louise makes the choice for herself or for Hannah.

Benatar would undoubtedly argue that Louise makes the choice for herself. In his view, "One can never have a child for that child's sake",[30] largely because being brought to existence is not a choice that anyone can make for her or himself, and therefore being brought into existence robs each of us of a crucial moment of agency. Of course, Benatar recognizes that someone who does not exist does not have agency: "Those who never exist cannot be deprived."[31] Thus, the ethical consequences for existence fall directly upon the parents, not the child. Viewers are left with the impression that Louise is not choosing to bestow a great gift on Hannah by bringing her into the world. Rather, the impression is that Louise chooses to bring Hannah into the world for the moments of joy that Hannah brings to Louise herself, despite the accompanying pain. Hannah herself experiences moments of pleasure and joy, but again Benatar claims that we cannot "have a child for that child's sake".

Examining Chiang's novella as source material provides some further insight into our dilemma, first by more clearly indicating than the film that the story's focus is on the unnamed daughter—the title is "The Story of Your Life," after all—second, by providing only a few textual pieces of evidence regarding Louise's perspective on her daughter's pain, such as: "I'll pick you up and carry you under my arm to your bed, you wailing piteously all the while, but my sole concern will be my own distress."[32] Later, Louise will observe about her daughter's life: "The word 'infant' is derived from the Latin word for 'unable to speak,' but you'll be perfectly capable of saying one thing: 'I suffer,' and you'll do it tirelessly and without hesitation."[33] Certainly, Louise describes moments of joy in her daughter's life, but passages such as these indicate that Louise's choice to have her daughter was largely

selfish, not altruistic.

Louise's choice provides us with more opportunities to better understand Benatar's position, one being the observation that permeates Benatar's book that any suffering is too much suffering. He presents a hypothetical person who lives "a life of utter bliss adulterated only by the pain of a single pin-prick",[34] yet still insists that someone who never existed is better off than that hypothetical person because a non-existent person cannot miss either pleasure or pain, but that blissful life marred by a pin-prick has to endure that pin-prick, which is more than someone who does not exist has to endure. As he observes in his conclusion: "Not creating a person absolutely guarantees that the potential person will not suffer—because that person will not exist."[35] By Benatar's calculations, even if the good and neutral outweigh the bad in Hannah's life, then Hannah still has too much pain in her life. In other words, any pain at all in Hannah's life—even if she never became terminally ill and lived to a ripe old age, even if her parents never divorced, even if the only pain she ever experienced was a simple stubbed toe—would not make Hannah's life worth starting. For Benatar, the presence of any pain negates the presence of any good, in that Benatar's goal seems to be to eliminate the potential for all pain in all of existence. Had Louise answered "No" to Ian's "Wanna make a baby?" there would be no Hannah to experience pain and thus a (slight) reduction of suffering in the world.

Benatar would also argue that Louise suffers from a severe case of optimism, as do many of us, borrowing the term 'Pollyanna Principle' from psychologists Margaret Matlin and David Stang. Essentially, Benatar argues that Pollyannaism means that "there is an inclination to recall positive rather than negative experiences".[36] For any of us who think we have a fairly decent or even a 'good' life, we have been blinded by our tendency to overlook pain and to unfairly focus on our more positive experiences. Thus, Louise's assessment of the story of Hannah's life is suspect, and viewers who are swept away by Louise's readiness to embrace the journey of joy and pain are themselves manipulated to join in the conspiracy of existence.

In fact, Denis Villeneuve and Eric Heisserer made a number of changes from the novella that arguably heighten the amount of suffering for Louise. First, in Chiang's novella, although Louise does separate from her daughter's father, named Gary in the story, she does eventually begin another relationship with a man named Nelson. By all indications, in the film Louise is alone after Ian leaves her. Whether entering a second relationship is more or

less painful can be debated by those who have experienced second relationships, but there can be little doubt that in *Arrival* Louise seems to derive some amount of pleasure from not being alone.

The second major choice that Villeneuve and Heisserer made to deviate from the novella is that in "Story of Your Life," Louise's daughter dies in a rock-climbing accident at the age of twenty-five, whereas in *Arrival*, Hannah dies in her teens from some terrible rare disease. While a rock-climbing accident is not a pleasant way to go, and Louise suffers tremendous grief, viewers are most likely to see a terminal disease that involves some extended time of suffering as more painful than a quick death from a fall.[37] Benatar is aware of the impulse for those of us who exist to attempt to quantify the amount of suffering in a life in order to justify maintaining that life. From Benatar's viewpoint any amount of suffering is an unconscionable amount of suffering, so from that perspective the suffering that comes from dying in a fall or losing a loved one in a fall is no different from the suffering that accompanies a long-term illness. From a Benatarian perspective, then, the responsibility for the death of the daughter in both the film and the novella falls squarely on Louise's shoulders, and, by choosing to give birth to her daughter, Louise has committed an immoral act; an act that anyone who chooses to have a child has committed. Louise may be forgiven, or at least dismissed as a masochist, for choosing to allow herself to go through the pain of losing a child, but Benatar and other antinatalists would find great fault with Louise for choosing a life that ends in such pain for her daughter, who has no opportunity to express whether or not she would choose that life for herself.

Thus, both these differences from the novella potentially magnify the amount of pain that Louise endures and make her choice to embrace the journey in *Arrival* much more significant. The ultimate message of the film disagrees with Benatar. Suffering is not something that negates the value of existence, even though one cannot avoid it. Louise's choice to embrace suffering, perhaps even celebrate it by recognizing its importance in our lives, provides the foundation for a different approach to suffering than Benatar's.

Arrival and Overall

While Benatar and other antinatalists believe they have the moral high ground in adopting a philosophical position, which in their view ensures that no further harm will come to humans and other life forms affected

by humans, their position is often viewed as extreme by most other people. Historically, humanity has preferred to procreate, to give in to the biological drive to share our DNA with the future. For some, the choice to procreate is not a difficult one and is often entered into as a result of an almost automatic response to biological and cultural pressure, rather than as a carefully considered action the consequences of which have been exhaustively weighed and scrutinized. That equally extreme position, that we are all baby machines, reflects the apparent preference for fertility that often surrounds the choice to have children. Undoubtedly, many people will find Benatar's antinatalist views offensive. However, we in the Western world often find ourselves shocked by stories of unmitigated excess in childbirth and shake our head in disbelief (with perhaps a drop of existential horror at the thought of the implied life changes) at the media coverage of large families that keep pumping babies out or have huge multiple births, such as the Duggars or the Gosselins, the focus, respectively, of the television shows *Nineteen Kids and Counting* and *Jon and Kate Plus Eight* (later *Kate Plus Eight*).

Somewhere between the two positions that procreation should stop and the more the merrier rests what may be a more rational and compassionate choice, reflected in the works of philosophers such as Christine Overall, especially in her book, *Why Have Children?* The ambivalence of Overall's title reveals the scrutiny that the author would like all parents to apply to the choice to have children. Her ethics are driven by the welfare of all children, the rights of women, and the continuing impact that more and more humans have on the environment: "[J]ustified decision making about procreation must be based at least on a consideration of the consequences of our procreative decisions and in particular of their effects on existing children and on women."[38] Overall is not intending, as Benatar appears to be, to tell people what to do, what choices to make—in fact, she argues that people have "a right not to be interfered with in their procreative behavior".[39] Rather, she is hoping to reveal that the decision to give birth, like so many of the choices in our lives, has ethical implications that would benefit from a closer look. As she indicates, "[her] aim is simply to explore some ways in which we might think systematically and deeply about a fundamental aspect of human life".[40] Overall's book attempts to provide a system for thinking about procreation that goes beyond the Western default position that the burden for explaining why not to have children is placed on those who choose to avoid procreation. Many couples have experienced pressure

from family and friends to take the 'natural' next step in the relationship and have children. Overall would like to redirect our thinking by encouraging Western culture to accept the notion that in the twenty-first century the burden of explaining should rather be placed on those who choose to have children. In this sense, recognizing that the world is filled with suffering and that bringing more people into the world has a greater impact on the environment and other people, Overall agrees with a number of Benatar's premises.

However, Overall provides some direct critiques of a few of Benatar's views that bear a quick overview. She devotes an entire chapter to addressing Benatar's position and questioning his premises. A significant portion of the chapter critiques Benatar's asymmetrical views of pleasure and pain. Her challenges are important, and I would refer the reader to her work. However, suffice it to say in this chapter that she questions a number of Benatar's assumptions concerning pleasure and pain. For example, acknowledging that death is a terrible end to life, Overall argues that just because something ends, it doesn't necessarily mean that we should avoid it. She offers vacations as a clear example of something with an ending that we enjoy, even though an end is already in sight once we begin.[41] She also challenges Benatar's position by arguing that it is difficult to determine if a life is worth starting until one has lived an entire life and can examine its content.[42] In other words, while Benatar hangs his entire argument on preventing life, Overall encourages her readers to consider the entire narrative arc of a life. Finally, she directly questions Benatar's 'Pollyanna' theory that all of us overestimate how good our life is, by asserting individual subjectivity over Benatar's position: "There's something far-fetched about the idea that I and virtually everyone who says she or he is happy to be alive can be badly mistaken about the quality of our lives."[43] Unless we all experience some kind of *Matrix*-level global collective illusion, how dare Benatar, she seems to argue, make a choice for all of humanity:

> It seems unlikely that the vast majority of us is guilty of false consciousness. Benatar cannot possibly know this of every single human being who is happy to have been born. It is simply unfounded to deny the experience of literally millions of people who for the most part enjoy their lives and are happy to exist. Moreover, it is presumptuous for him to suppose that he (along with the few who may agree with him) is the only person who fully understands the human situation and has the appropriate response to it.[44]

Underscoring her disagreement with Benatar's conclusions, she refers to a study that demonstrates that people who self-report happiness "are less self-focused, less hostile and abusive, and less vulnerable to disease. They are also more loving, forgiving, trusting, energetic, decisive, creative, sociable, and helpful."[45] The net result of Benatar's claims of Pollyannaism, Overall observes, are positive:

> If in the present I do not remember most of my negative experiences, my life now is better than it would be if I did remember them. If I think that the future will be good, even if I overestimate its goodness, that fact too makes my current life more pleasant. And if I have a positive assessment of my well-being, this surely means that in at least one important way, my subjective self-assessment, I am doing well.[46]

To some extent, it appears that Overall argues that even if Benatar is correct in his claim that we are all deceived about how good life is, to the person to whom the view that life is good matters most, namely each subjective individual, deception is ultimately a benefit, and pointing it out may not help anyone.

But Overall's book is not simply a response to Benatar. It is an extensive exploration of the moral issues surrounding the choice to have a child. Overall explores a wide variety of reasons both to have and not to have children, arguing that people have a moral right to choose either position and not be interfered with. Her arguments are too extensive to outline here; I can only refer the interested reader to her book. However, I would like to note that she ultimately decides that the best reason to have a child is relational:

> To become the biological parent of a child whom one will raise is to create a new relationship: not just the genetic one, but a psychological, physical, intellectual, and moral one. The parents seek out a connection to a new human being, a connection that not only will serve the needs of that new human being but will also make the parents themselves needy and vulnerable in a way they have never been before.[47]

The best reason, therefore, to have a child is not the child itself—Overall expresses her fears that some children might be exploited or viewed as commodities[48]—but the epiphenomenon that arises out of the existence of the child and the existence of the parent. Not only is a new entity brought into the world, but a new state of being is created: one that did not previously exist, is unique, and will have ramifications for not just the

child and parent but also their larger family and community.

Thus, equipped with a few of Overall's tools it becomes easier to see *Arrival* not as a naïve movie potentially derided by antinatalists, but as a pronatalist film that explores the agency of its main character, her willingness to embrace vulnerability, and the primacy of relationships. Clearly, by being unstuck in time, Louise is able to evaluate an entire life lived out, as Overall also encourages us to do. While an antinatalist such as Benatar might argue that Louise's choice to have Hannah can only arise from some perceived need on Louise's part, and not out of an altruistic desire to share life with Hannah, viewers are forced to reckon with Louise's ability to witness the totality of life and her foreknowledge of the consequences of her actions. In Louise's view, Hannah's life is worth living and thus worth starting, and while Hannah has no say in the matter, Louise is at the very least much more informed than the rest of us who choose a child, hoping to offer it the best the world has to offer.

Louise rejects Benatar's view of the asymmetry of pain and pleasure. For Louise, pain does not trump pleasure; the two are not mutually exclusive, as Benatar seems to indicate. In fact, Louise has the least Pollyanna view of a life anyone could have. She knows Hannah will die. Some may conclude that Louise's choice is abhorrent, as Ian does, for condemning a child to such a fate. Yet Louise has seen Hannah's entire life, and knows that while there will be pain, there will also be joy and love. Louise is much less Pollyanna than most of us who make decisions assuming that our children will be spared suffering. Louise's decision highlights her opinion that the existence of suffering does not negate the existence of good. She rejects an antinatalist position that sees pain and pleasure as mutually exclusive and accepts the idea that they are intertwined, coexisting, and perhaps even dependent upon each other. A complete life must include pain, and to believe otherwise is truly a Pollyanna position. But pain does not define existence, and to run from it seems less narratively satisfying, less rewarding, less human than embracing it. Louise's choice to have Hannah makes Louise vulnerable, and the consequences of that choice do not only affect Hannah. Louise chooses to suffer with Hannah, which is perhaps one of the essential elements of the kind of relationship that Overall identifies as the best reason for having children.[49]

Arrival also recognizes some of Overall's other ethical viewpoints by giving us an ideal mother, one who is well-educated, well-informed, and economically independent. As stated previously, Louise has optimal agency

in choosing Hannah's life. While Ian is the instigator with his "Wanna make a baby" proposal, Louise chooses in the affirmative, ensuring Hannah will exist. The ultimate power of making that baby lies with Louise. Later in the film, once Ian leaves Louise, she becomes Hannah's primary caregiver, teacher, influencer. We do not see Ian with Louise at Hannah's deathbed. In fact we rarely see Ian with Hannah at all, only at the end of the film when he calls her "starstuff."[50] Ian seems to become a vehicle for ensuring Hannah's existence, then dissolves into a mere sidebar to the relationship Louise and Hannah have. He almost disappears after creating Hannah in the linear timeline. Thus, Louise virtually becomes the sole bearer of the relationship that has been created by having a child, and while Ian appears to have telephone interactions with Hannah, and perhaps visitation rights, Louise demonstrates her primacy in sustaining and caring for Hannah. Where the father has abdicated his position as caregiver, the mother readily accepts her role, and can do so independently of male support. Knowing that Ian would be unable to accept her choice, Louise demonstrates her ability to assert her agency in this choice. She chooses Hannah, knowing full well that the majority of parenting responsibilities and joys will fall on her. While some might argue that this is the default position of most mothers in the Western world, Louise *chooses* that position, rather than simply finding herself there. She is fully aware of her ability to independently provide for Hannah, makes the informed choice, and appears to have few regrets other than wishing Hannah would 'come back to [her]'.[51]

What Happened to Monday and Overpopulation

While *Arrival's* more pro-natal message—seen from the perspective of the mother—resists Benatar's assessment that any suffering is unacceptable, *What Happened to Monday's* bleaker outlook—seen from the viewpoint of the children—reinforces many of Benatar's positions while simultaneously rejecting his foundational premises. In this film, viewers are presented with a dystopic future around fifty years from now—about 2073, in which global overpopulation threatens the existence of all life on Earth. An effort to genetically engineer enough crops to feed the exploding population has the unintended side effect of greatly increasing multiple births, thereby exacerbating the population explosion. A Child Allocation Bureau directed by Nicollette Cayman (Glenn Close) has decreed that to control the world's human population all families will

be allowed to have only one child. Any siblings beyond the first child will be rounded up and put into cryosleep until such time as global resource problems have been solved and the extra population can be supported.[52] A woman named Karen Settman defies the one child order and, without the help of her babies' anonymous father, chooses to give birth to septuplets in an illicit, underground hospital. When she dies in childbirth, her father, Terrence (Willem Dafoe) takes the seven sisters in and raises them to collectively adopt the Karen Settman identity (played at first by Clara Read and later by Noomi Rapace). Since there are seven sisters, they are named according to the days of the week, and eventually each sister will publicly take on the life of Karen Settman on the day of the week corresponding to their name, living at all other times within the confines of the family home and having no public existence. Having been trained by their grandfather to protect each other and to live an intensely cautious life, their existence is both limited and complicated. Their life gets worse when Monday falls in love with Adrian (Marwan Kenzari) and becomes pregnant with twins. Realizing that the existence of her siblings potentially threatens the lives of her own children, Monday makes a deal with Cayman that ensures she will become the only Karen Settman. While Monday adopts the identity, her sisters will presumably be consigned to cryosleep. The deal fails since, as viewers learn, Cayman is far from trustworthy. Not only are all the sisters except Tuesday and Thursday killed, but we learn that all the children supposedly put into cryosleep have been killed and incinerated. In the end Monday is herself killed, but she extracts a promise from Thursday to ensure that her twins will survive. We witness the twins developing in an artificial womb[53] surrounded by extensive shelves of infants who are presumably now allowed to exist in the wake of the repeal of Cayman's Child Allocation Act.[54]

What Happened to Monday and Benatar

Cayman is clearly the character most aligned with the views of those antinatalists concerned with the social and environmental impact of having children, although even her radical ethical choices do not adopt Benatar's premise that humanity should be allowed to go extinct. In fact, her actions seem designed to ensure continued, if limited, procreation. Like Cayman, many non-parents who choose not to have children for environmental reasons do not generally feel that humanity should cease

to exist, such as those adults featured in *The Guardian* article mentioned early in the chapter. While Cayman's actions are designed to reduce the overall amount of suffering in the world—and she claims her policies have an apparent positive impact on reducing population and suffering as the number of European Federation live births per year drops from around two million at the introduction of the Child Allocation Act to around one hundred thousand, as we learn at the end of the film[55]—she still clings to the belief that humanity must continue, as, apparently, do the sisters. Benatar does not make any claim that those who have the misfortune to exist should be relieved of that misfortune: once we exist it is unethical to take existence from us. Benatar believes humans should eventually become extinct, indeed we should never have existed, although he does not advocate taking extinction matters into our own hands: "Humans killing their own species to extinction is troubling for all the reasons killing is troubling."[56] Instead, he advocates a "dying extinction" or "non-generative extinction"[57] in which we allow ourselves to eventually fade from existence, no longer procreating. This is where Cayman and Monday diverge from an ideal Benatarian situation—they still believe that humans have a right to continue as a species, albeit under severely controlled conditions in which Cayman makes the tough decisions about who lives and who dies for the greater benefit of future generations and in which Monday betrays her sisters to ensure her progeny's existence.

What Happened to Monday and Overall

Overall does not shy away from the tough decisions that face those who fear the problems caused by overpopulation. Indeed, Overall argues that the specter of overpopulation should be a factor in every choice to have a child. Recognizing that overpopulation poses a real threat to not only the quality of life of every person on the planet but also the very existence of every person, Overall suggests "that every individual adult has a moral responsibility to limit himself or herself to procreative replacement only".[58] Her proposal is not at all a new one, but her framing of the argument better recognizes the agency of women than most proposals:

> All persons get to (try to) have a child of "their own," if they want one, and the value of every adult is implicitly endorsed through the fact that each one is allowed to reproduce herself or himself. Such a responsibility implies that every person is sufficiently valuable as to be worth replacing (even though a

> one-child-per-person morality will eventually result in population decline, given that some people will have no children and some couples will choose to have only one).... Finally, "one child per person" is not the same as "two children per couple." "One child per person" is preferable because it is not based on a sexist and heterosexist notion that women must necessarily be in a couple and that every couple must consist of a male and a female. "One child per person" recognizes the possibility that a single woman might procreate, as might two women in a committed relationship.[59]

Overall's suggestion would go a long way to begin to counter overpopulation if it was implemented in our present era, but for the world of *What Happened to Monday*, that suggestion comes too late. However, to her credit, Monday does not violate Overall's guidelines. Monday appears to have avoided the extreme multiple pregnancy caused by genetically engineering crops, instead having only twins that will replace her and Adrian.

Monday's lucky circumstances reveal that, like *Arrival, What Happened to Monday* features women who empower themselves to make their own reproductive choices. For Overall, empowering women's choices is of the utmost importance:

> As a feminist, I therefore take women's bodily freedom (the absence of physical, legal, or social constraints on one's decisions about one's body) and autonomy (the capacity to be self-determining, especially with respect to one's body) to be the sine qua non for women's equality and full citizenship. The deontological basis for reproductive rights is that they are indispensable to protecting women's personhood. Without moral recognition and legal protection of their bodily freedom and autonomy, women are little more than procreative slaves. It is essential to respect women's bodily freedom and autonomy because it is simply wrong to subject women to forced reproduction; it is wrong to use women as a means to others' reproductive goals. Such treatment violates their personhood.[60]

Overall's position stems largely from her engagement with the abortion debate. Being an advocate of a woman's right to choose, she would likely side with Monday in this film, which features a government that forces women not to have children rather than insisting they have them.

In fact, *What Happened to Monday* works well as a film that explores a woman asserting her right to make her own reproductive choices. Through inverting the more familiar debates of whether a woman can choose an abortion or not, the film presents us with at least two women who defy government regulation to exert their own right to choose. In fact, much of the

emotional impact of the film seems to drive viewers to align their views with a woman's right to choose and to oppose a government's right to interfere in reproductive choices. The totalitarian impact of the Child Allocation Bureau's policies is an individualist's worst nightmare.

Karen Settman chooses an illegal multiple-birth clinic to have her septuplets in a scene that resembles an underground abortion clinic. Her daughter, Monday, also makes a choice to defy the government and give birth to twins. Monday diverges from Overall, and even from Benatar, when she privileges her own children over the rights of her sisters. While Overall identifies the relationship between parent and child as a primary motivation for having children, her concern for the impact that those children will have on other people through overpopulation and environmental impact reveals that one's relationship with one's children should not be created at the expense of others. Benatar shares Overall's concern for the welfare of other people in both his warnings against overpopulation and his admonishment that choosing to start a life is an entirely different conversation from choosing to end a life. Thus, whereas *Arrival* features a mother whose choice to have a child, while not entirely selfless, is at least sacrificial, *What Happened to Monday* delves into the repercussions of selfish reproductive choices.

What Happened to Monday and the Consequences of Selfish Choice

Karen Settman, by giving birth to seven selves, defies the Child Allocation Bureau's one child policy, while fiercely rejecting an antinatalist philosophy. While the world of *What Happened to Monday* anticipates the anxieties of those potential parents who hesitate to bring children into the world because of the negative political and environmental state of the world, the mother Karen Settman rejects such anxieties as grounds not to procreate. We can assume that in choosing to carry her septuplets to term, she did not anticipate her own death in that choice, or if she did, she assumed that her sacrifice would be 'worth it'. Nor does it seem that she understands the depth of suffering her choice will cause in the lives of those around her, including her daughters. Ultimately, her pro-natal choice results in her death, the burdening of her father, Terrence, and the arguably incomplete existence of her seven daughters. However, her choice does result in the seven sisters, whose existence will ultimately

bring about the end of Cayman's hegemony.

It is through the unfolding of the sisters' story that we most clearly see Benatar's antinatalist perspective come into focus, for the film is fraught with their suffering. Since each daughter only 'exists' as Karen Settman one day a week, they are unable to make autonomous decisions or individually choose the trajectory of their lives. While we see personality differences within the sisters' home life, when they enter the broader world of humanity, each sister is constrained to a role that they all share. As Terrence points out, "What happens to one of you happens to all."[61] When a sister does assert autonomy, the results are catastrophic. As a child, Thursday loses the tip of her left pointer finger in an accident when she goes out to skateboard on a day that was not hers, and Terrence must amputate all the sisters' left pointer fingertips to prevent discovery. Later, as an adult, Monday falls in love, gets pregnant, and puts in motion her plan to become the only Karen Settman. Like her mother, Monday's determination to give birth to her children will greatly increase the net suffering of all the people in her life and culminate in her own death. Ultimately, every choice to have children in the film obviously increases suffering. This fact reinforces Benatar's views on the immorality of bringing new life into the world, yet the characters continuously insist on either their right to procreate without interference or their right to procreate at all.

The suffering brought about by choosing to give birth is compounded by Monday's belief that the lives of her own children are more valuable than the lives of her sisters. Although she claims that she didn't know her sisters would be killed, she seems prepared to take Thursday's life when confronted by her at Cayman's campaign launch party. As Monday herself lies dying after being shot, she begs of Thursday, "Promise me. Don't let them take them."[62] Thursday never explicitly says, "I promise", but gives a slight nod in the moment she feels Monday's belly. Later, viewers witness Monday's twins growing in a tank. Gazing at the twins, Thursday, Tuesday, and Adrian contemplate their future. Thursday says, "Monday did it all for them. She wanted them to be safe." Tuesday, now Terry, replies, "Well, they will be."[63] While Terry, at least, seems to indicate an interest in taking responsibility for caring for the twins, Thursday—who now claims the name Karen Settman—appears less committed. Monday's choice to have children in defiance of the Child Allocation Act and her sisters' lives impacts her surviving sisters by requiring them to care for the children that Monday can no longer support. As with the sisters' own existence, the one who made the choice to

bring these children into existence indirectly forces others to care for the products of that choice, effectively disrupting the agency of the new caregivers. Choosing to be a parent is not only a sacrifice for the ones who make that choice, but also often winds up being a burden on others who did not.

Indeed, throughout the dystopian world of the film, choosing to be a parent, especially a mother, is a terrible choice. Mothers are often erased, as almost every mother we see dies before she has a chance to perform any typical maternal behavior. The only other obvious mother we see merely serves to display intense grief and to heighten viewers' sense of the injustice of the Child Allocation Act as her illegally conceived child is taken from her. Having children intensifies suffering for mothers, for the children they bear, and for the entire world.[64]

Throughout the film, viewers are encouraged to believe that Cayman's and Monday's choices, which infringe on the rights of those around them, are immoral, that humans have a right to exist and procreate. We cheer with the sisters who survive at their victory in overthrowing the system and exposing Cayman, but the victory is shallow. Of Karen Settman's seven daughters, only two remain, and their lives are marred by the suffering brought about through maternal instincts. As that moment of triumph collapses, we are left with the images of those rows of infants. In the final scene of the film we are confronted with the overwhelming image of population growth as represented by the shelves of crying infants, and our views of the sisters' heroism are deconstructed by the harsh reality that Cayman's admittedly immoral acts were perhaps actually doing something good for the world. Ultimately, we are invited to ask ourselves who made the right choices in the film.

Final Thoughts on *Arrival*, *What Happened to Monday*, and Natal Choices

Compared to *What Happened to Monday, Arrival* provides a heartwarming answer to Benatar that simultaneously challenges and supports his views. The Heptapods indicate they will need us in 3,000 years, so Benatar's hopes of human extinction will not be fulfilled by then in the world of the film. Louise believes that the suffering is worth it—the joy of Hannah's life outweighs the suffering. We don't get to know what Hannah thinks, for she's simply an incidental character. We know Ian believes Louise made the wrong choice in choosing to have Hannah, and since Louise loses both Hannah and Ian, her net effect appears to be loss and

suffering. On the one hand, Louise demonstrates Benatar's great concern: we see her suffer a lot. On the other hand, *Arrival* interrogates one of the core premises of Benatar and other rejectionists by claiming that suffering is not purely bad—that life can only exist in a binary of either bad or good—but by claiming that life is both good and bad, and that complexity—and Overall's prized relationships—may be what makes life worth living.

What Happened to Monday more unambiguously supports Benatar's conclusions and Overall's concerns. The film shows us humanity's propensity for procreation, our biological drives that keep us making more babies. Characters in the film seem to act as though when choice is taken from them a human right is being stolen, and viewers root for the restoration of those rights. But by the end, we are left with the impression that the anti-population forces were at least partially correct. They claim to have improved the quality of life for many people, if we can believe their propaganda, but with the assumed removal of the one-child laws, the end of the world through overpopulation becomes alarmingly nigh. In *What Happened to Monday*, Benatar's and Overall's worst apocalyptic scenarios come true: unexamined, uncontrolled human reproduction that ultimately increases tremendous suffering and the impending collapse of the world due to too many people. While there are spots of joy in the film, they are overshadowed by the vast suffering created by people choosing to have children. The complexity of life—the reality that joy is always mingled with suffering—may make life not worth living.

Both films provide ample food for thought for those considering the possibility of bringing a child into the world. Thanks to our perceptions of free will, some of us will have to make a choice about procreation. Both films rightfully agree that immense suffering exists. But whereas *What Happened to Monday* offers a world in which joy and pleasure are vastly overwhelmed by pain and suffering, *Arrival* argues that suffering is an intrinsic part of life that seems to make life better. If we listen to the mothers in both films, babies are important. In *Arrival* choosing to have a child results in both pain and joy, yet in *What Happened to Monday* the choice to have a child might lead to glimpses of joy but inevitably leads to suffering. In the end, both films, along with Benatar and Overall, encourage us to reconsider the implications of an act that many of us take for granted or even celebrate, an act that is much, much more ambivalent than most of us would like to believe.

[1] Genesis 1:28. *The ESV Bible*. Wheaton: Crossway, 2001, www.esv.org/ (accessed 2022-11-28).

[2] For a much more exhaustive exploration of the factors that contribute to the choice to have children or not, readers should explore the article "Childbearing intention and its associated factors: A systematic review," which explores the vast ecosystem of influences that affect whether couples embrace or deny fertility: Mozhgan Hashemzadeh, Mohammad Shariati, Ali Mohammad Nazari, and Afsaneh Keramat. Childbearing intention and its associated factors: A systematic review. *NursingOpen*. Vol 8, no. 5, 2021: 2354–2368. doi: 10.1002/nop2.849.

[3] Christine Overall. *Why have children?* Cambridge: MIT press, 2012, p. 2.

[4] Henderson, Richard. Employment outlook: 2010–2020. Industry employment and output projections to 2020. *Monthly Labor Review,* 2012-01, 65–83. *Bureau of Labor Statistics*. p. 70. https://www.bls.gov/opub/mlr/2012/01/art4full.pdf (accessed 2018-04-13)

[5] United Nations. *Universal Declaration of Human Rights*. 2015. https://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf (accessed 2022-11-28).

[6] Maggie Astor. No children because of climate change? Some people are considering it. *The New York Times*. 2018-02-05. https://www.nytimes.com/2018/02/05/climate/climate-change-children.html (Accessed 2022-11-28).

[7] Amy Fleming. Would you give up having children to save the planet? Meet the couples who have. *The Guardian*.2018-6-20. https://www.theguardian.com/world/2018/jun/20/give-up-having-children-couples-save-planet-climate-crisis (accessed 2022-11-28).

[8] Alexandra Sifferlin. More Women are Investing in IUD after President Trump's Election. *Time*. 2017-01-26. time.com/4650190/iud-trump-election/ (accessed 2022-11-28).

[9] Christina Cauterucci. IUD demand has risen 900 percent since the election, planned parenthood says. *Slate Magazine*. 2017-01-10. https://slate.com/human-interest/2017/01/iud-demand-has-risen-900-percent-since-the-election-planned-parenthood-says.html (accessed 2022-11-28).

[10] An article in *The Washington Post* in 2018 by Petula Dvorak indicates that there is anecdotal evidence that Trump's election had an impact on women's choices to have children. Dvorak mentions a California therapist whose specialty is helping women make motherhood choices. The therapist tells Dvorak about a client who, shortly after Trump's election, dropped out of her class, leaving a voice mail message that said, "'When Trump was elected, I didn't need your class to decide.'" Petula Dvorak. The child-free life: Why so many American women are deciding not to have kids. *The Washington Post*. 2018-05-31. https://www.washingtonpost.com/local/the-child-free-life-why-so-many-american-women-are-deciding-not-to-have-kids/2018/05/31/89793784-64de-11e8-a768-ed043e33f1dc_story.html (accessed 2022-11-28).

[11] As an opinion piece in the *Los Angeles Times* reveals, "In 'Mein Kampf,' published in 1925, [Hitler] celebrated the ideology [of sterilization in the United States]. 'There is today one state,' wrote Hitler, 'in which at least weak beginnings toward a better conception [of citizenship] are noticeable. Of course, it is not our model German Republic, but the United States.' Hitler's Reich deployed its own sterilization laws, nearly identical to those in the United States, within six months of taking power in 1933." Mark G. Bold. It's time for California to compensate its forced-sterilization victims. *Los Angeles Times*. 2015-03-05. https://www.latimes.com/opinion/op-ed/la-oe-0306-bold-forced-sterilization-compensation-20150306-story.html#:~:text=California%20was%20the%20third%20state,in%20North%20Carolina%20and%20Virginia (accessed 2022-11-28).

[12] John Huntington. Science Fiction and the Future. *College English*. Vol. 37, no. 4, 1975: 345–352. www.jstor.org/stable/376232, p. 345.

[13] Saying science fiction is the literature of the future may be a bit hackneyed. With an abundance of texts that focus on time travel, alternate worlds and histories, let alone a juggernaut of a media franchise that takes place "a long time ago," saying sf is all about the future would be misinformed. However, failing to acknowledge that sf is a genre that often speculates about the future is arguably naïve.

[14] Obvious exceptions include dystopian novels and films such as the films *Logan's Run* (1973), based on the 1967 novel of the same name by William F. Nolan and George Clayton, and *Soylent Green* (1973), based on Harry Harrison's 1966 novel *Make Room! Make Room!*

[15] Denis Villeneuve, (dir.), *Arrival* (Paramount Pictures, 2016).

[16] Villeneuve, (dir.), *Arrival*, (1:48:39-1:48:58).

[17] Benatar, David. *Better never to have been: The harm of coming into existence*. Oxford: Oxford University Press, 2008. p. 1.

[18] Benatar. *Better never to have been*, p.1

[19] Benatar. *Better never to have been*, p.30.

[20] Benatar. *Better never to have been*, p.30.

[21] Benatar. *Better never to have been*, p. 30. Of course, Benatar argues that suffering cannot be boiled down to a simple equation, for one must consider the intensity of one's pain and the order in which pleasure and pain appear in one's life. Still, his initial simple table provides the foundation for his later, more complex arguments.

[22] I must acknowledge that Benatar is not original in his view that life is filled with suffering. No-one would deny that claim. Where his view becomes different than most who recognize life's pain is in his claim that we commit an immoral act by bringing another life into this painful world. Benatar is more preoccupied with preventing pain than on how to cope with it.

[23] Villeneuve, (dir.), *Arrival*, (1:48:39-1:48:58).

[24] Villeneuve, (dir.), *Arrival*, (1:46:26-1:46:41).

[25] Benatar. *Better never to have been*, p. 95.

[26] Villeneuve, (dir.), *Arrival*, (1:49:51-1:50:30).

[27] The film runs for about one hour and fifty-eight minutes, and Hannah appears in 462 seconds of it.

[28] Villeneuve, (dir.), *Arrival*, (1:32-1:35).

[29] Villeneuve, (dir.), *Arrival*, (1:46:07-1:46:17).

[30] Benatar. *Better never to have been*, p. 2.

[31] Benatar. *Better never to have been*, p. 1.

[32] Ted Chiang. Story of your life. In *Nebula awards showcase* 2001, Robert Silverberg (ed), 1–48. San Diego: Harcourt, 2001, p. 36.

[33] Chiang. The story of your life, p. 41.

[34] Benatar. *Better never to have been*, p. 48.

[35] Benatar. *Better never to have been*, p. 224.

[36] Benatar. *Better never to have been*, p. 65.

[37] However, one wonders if a fall would be more preventable than a terminal disease. Louise's failure to intervene in Hannah's fall signals her acceptance of Hannah's death as somehow predetermined and raises questions about Louise's culpability in Hannah's death in the novella.

[38] Overall. *Why have children?* p. 173.

[39] Overall. *Why have children?* p. 173.

[40] Overall. *Why have children?* p. 8.

[41] Overall. *Why have children?* p. 109.

[42] Overall. *Why have children?* p. 107.

[43] Overall. *Why have children?* p. 108.

[44] Overall. *Why have children?* p. 108.

[45] David G. Myers. The funds, friends, and faith of happy people. *American Psychologist*. Vol. 55, no. 1, Jan. 2000: 56. doi:10.1037/0003-066X.55.1.56., pp. 57–58.

[46] Overall. *Why have children?* p. 108.

[47] Overall. *Why have children?* p. 216.

[48] Overall. *Why have children?* p. 211.

[49] These sentiments resonate with those Friedrich Nietzsche expressed in *Beyond Good and Evil: Prelude to a Philosophy of the Future*. For Nietzsche, pain is not something to be avoided, happiness and freedom from pain are not necessarily desirable goals: "You want, if possible (and no "if possible" is crazier) to *abolish suffering*. And us? – it looks as though *we* would prefer it to be heightened and made even worse than it has ever been! Well-being as you understand it – that is no goal; it looks to us like an *end*! – a condition that immediately renders people ridiculous and despicable – that makes their decline into something *desirable*! The discipline of suffering, of *great* suffering – don't you know that *this* discipline has been the sole cause of every enhancement in humanity so far?" (emphasis Nietzsche's). Friedrich Nietzsche. *Beyond good and evil: Prelude to a philosophy of the future*. Cambridge texts in the history of philosophy, Rolf-Peter Horstmann and Judith Norman, eds., Cambridge: Cambridge university press, 2002, pp. 116–117. https://www.holybooks.com/wp-content/uploads/Nietzsche-Beyond-Good-and-Evil.pdf. Curiously, Benatar has no overt response to Nietzsche's philosophy; Nietzsche does not make an appearance in *Better Never to Have Been*.

[50] Villeneuve, (dir.), *Arrival*, (1:47:23-1:48:00).

[51] Villeneuve, (dir.), *Arrival*, (3:37:26-3:43:36).

[52] Birth control and abortion are rarely, if ever, mentioned in the film, so choice in *What Happened to Monday* appears to be extremely limited.

[53] The end of the film provides the first appearance of ectogenesis, and the presence of the artificial womb seems more of a convenient plot point to ensure the survival of the twins beyond the death of Monday than a readily available form of procreation or birth/population control. It is not outside the realm of possibility that infants conceived through ectogenesis might not be affected by the multiple-birth side effect of genetically engineered food, assuming the mother's body is the site of the side effects. However, if ectogenesis solved the problem of the population explosion, we would not have a plot, and viewers are left wondering why Monday didn't choose ectogenesis in the first place to hide her pregnancy and ensure the safety of herself and her sisters.

[54] Tommy Wirkola, (dir.), *What happened to Monday* (Netflix, 2017).

[55] Viewers might question Cayman's statistics for two reasons: 1. Do her numbers account for unofficial babies born to mothers such as Karen Settman? At the end of the film, a reporter observes that after the repeal of the Child Allocation Act, "Pregnant women are coming out of hiding in droves" (1:56:28–1:56:344). 2. Given her other unethical choices, what guarantee do we have that she is telling the truth in a political rally designed to make her look good?

[56] Benatar. *Better never to have been*, p. 196.

[57] Benatar. *Better never to have been*, p. 195.

[58] Overall. *Why have children?* p. 183.

[59] Overall. *Why have children?* pp. 183–84.

[60] Overall. *Why have children?* p. 21.

[61] Wirkola, (dir.), *What happened to Monday*, (23:28–23:30).

[62] Wirkola, (dir.), *What happened to Monday*, (1:54:46–1:54:57).

[63] Wirkola, (dir.), *What happened to Monday*, (1:58:12–1:58:21).

[64] Fathers also suffer in the film, but at least their participation in procreation generally does not kill them.

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Emma Tornborg

A Will of One's Own: Karin Tidbeck's Short Stories from a Posthumanist Perspective

This chapter examines two short stories from the book Jagannath (2012) by Swedish writer Karin Tidbeck[1] from a posthumanist perspective. The chapter begins with a brief introduction to aspects of posthuman thinking in general and the theories of feminist philosopher Rosi Braidotti in particular. The stories "Beatrice" and "Jagannath" are then discussed in terms of how their themes and characters relate to posthumanist theories.

Posthumanism is not easy to define. It has been, and still is, used in many ways by critics, philosophers, and literary scholars. However, two distinct directions can be discerned: 1) technological posthumanism, which is sometimes called transhumanism and focuses on technological enhancements and transformations of humans, and 2) what can be called critical or philosophical posthumanism centring on aspects of ecology, gender, disability and postcolonialism.[2] A common denominator is the questioning of the traditional, stable, and unitary definition of what a human being is and could be. Or, as Pavlína Bakošová and Juraj Odorčák (2020) state:

> we simply are not humans in the false sense of humanism, because we are the result and creators of myriads of various interactions (think social, biological, symbolic, physical, virtual, and much more), that are (and forever will be) beyond the scope of our recognition and hopelessly one-sided dreams about the world.[3]

According to Braidotti, posthumanism rejects the image of man as it is understood in the humanist European tradition with roots in the Renaissance, i.e., as The Vitruvian man – a white, European, able-bodied male

who is the master of all living things. For centuries, this man, famously depicted by Leonardo da Vinci in 1492, has been regarded as an ideal human, i.e. more human and therefore more worthy than any other human being. In the Anthropocene era, this image is now rejected on various levels and from different perspectives. For example, feminist theory rejects males as superior, postcolonial theory rejects the idea of Europe as the centre of the world and white as the ideal colour, ecocritical theory rejects anthropocentrism as the ordering principle of the world, and finally, scientific, and technological advances have questioned the physical limits of man.[4] In this chapter, I define posthumanism as being the diachronical result of these theories and movements and synchronically constituted by them.

Two aspects of posthumanism theory are of special interest in this chapter. The first is the subjectification of other-than-human individuals. One implication of the traditional humanist construction of man is the othering of all those who do not 'fit the profile' – who are not male, white, European, able-bodied, and so on. The Other is seldom allowed an agency or a will of their own but is rather a means to an end, regardless of whether the end is labour, worship, reproduction, food, pleasure, or transportation. The ecocentrical turn has made us re-evaluate the meaning and function of nature. The first step in what Braidotti describes as "a serious de-centering of 'Man'"[5] is to realise that nature is not the mirror of man's emotions, the backdrop on the theatre of man, or the projection site of man's dreams, hopes and ambitions.

The second is the technological aspect. This sub-category of posthumanism is sometimes called transhumanism[6]. According to Ferrando it problematises the understanding of what a human is "through the possibilities inscribed within its possible biological and technological evolutions". She continues:

> Human enhancement is a crucial notion to the transhumanist reflection; the main keys to access such a goal are identified in science and technology, in all of their variables, as existing, emerging and speculative frames—from regenerative medicine to nanotechnology, radical life extension, mind uploading and cryonics, among other fields.[7]

Beatrice

In Karin Tidbeck's short story "Beatrice", a physician, Franz Hiller, falls in love with a spaceship, and Anna Goldberg, who works for her father as a secretary, falls in love with a steam engine. Independently of each other, they both give up their old lives to pursue their relationships, although they coincidentally end up in the same warehouse in Berlin, where they live together with their machines. Two separate relationships therefore play out under the same roof. The narrative takes place in a fictional, steampunk timeline in a world where romantic relationships with machines are not unheard of, although not generally accepted.

Franz Hiller meets the two-passenger airship Beatrice at a fare, where she is on show, and is immediately attracted to her:

> Franz couldn't stop looking at her. Her body was a voluptuous oblong, matte skin wrapped tightly over a gently rounded skeleton. The little gondola was made of dark wood (*finest mahogany!)* and embellished with brass details *(every part hand-wrought*!), with thick glass windows that rounded at the edges. Inside, the plush seats were embroidered with French lilies, facing an immaculately polished console. Beatrice was perfect. She bobbed in a slow up-down motion, like a sleeping whale. But she was very much awake. Franz could feel her attention turn to him and remain there, the heat of her sightless gaze.[8]

Franz returns to the fair each day and the connection between them grows. He senses her longing for his touch. He tries to buy Beatrice, but as she is a prototype she is not for sale. If he wants an airship, he will have to order one. He goes home and looks at Beatrice's picture in the catalogue. His desire is overtly sexual: "Her smooth skin, her little gondola. How he wanted to climb into her little gondola".[9] After leaving his parents' house, moving to Berlin, and renting a warehouse, he orders an exact replica of Beatrice, but does not connect emotionally with the new airship. She is cool, disinterested and does not feel the same as the other when he touches her. Despite this, he does not give up: "We'll manage", Franz says to the console. "We'll manage. You can be my Beatrice. We'll get used to each other".[10] Already here, a sense of discomfort starts to mount in the reader: what choice does Beatrice have? She is in Franz's hands and the unwilling recipient of his love and desire – feelings that she clearly does not share.

Unlike Franz, who had never had a romantic interest in airships or other

vehicles before he met Beatrice, Anna Goldberg has always had a thing for machines: "When other girls her age mooned over boys, she had a violent crush on a Koenig & Bauer".[11] She meets the love of her life, the semi-portable steam engine Hercules, at the same fair where Franz met Beatrice: "a round-bellied oven coupled to an upright, broad-shouldered engine. He exuded a heavy aroma of hot iron with a tart overtone of coal smoke that made her thighs tingle. And he was for sale".[12]

Franz and Anna live side by side in the warehouse in Berlin and even start sharing their meals. They become friends and confidants and one evening Franz shares his worries with Anna. Despite his efforts to please Beatrice II, she still seems emotionally distant: "Beatrice remained cold and distant, no matter how Franz tried to warm their relationship. He was meticulous in his care for her. He read newspapers to her daily; he made love to her with great care. Nothing seemed to get her attention".[13] Thus, it seems that the new Beatrice never gets used to, or even likes Franz, yet is obliged to endure intercourse. Anna never asks why Franz thinks that this type of behaviour is acceptable. In this world, machines can feel and think, and thus feel hurt and pain. However, since Beatrice is silent, Franz can pretend that they have an agreement.

In contrast, Anna's feelings for Hercules appear to be mutual. Unlike Franz, who goes to work every day, Anna never leaves Hercules' side. She spends her days and nights feeding him coal every other hour, and in-between studies technical manuals. After a while she realises that she is pregnant: "When Franz laid an ear to her belly, he could hear clicking and whirring sounds in there".[14] When she goes into labour, Franz helps to deliver the baby: "The child was small but healthy, its pistons well integrated with the flesh".[15] After having given birth to her daughter, Anna bleeds out onto the warehouse floor. Her last wish is to be put inside Hercules' oven and incinerated. If we examine their relationship, it is obvious that Anna gives up her life, both literally and metaphorically, for the relationship. A woman, bleeding to death from labour complications on a warehouse floor after having spent her days and nights tending to her beloved, is a powerful image of the asymmetrical power relations between woman and man throughout history. Hercules, although a machine, is construed as male with traditionnally male features: strong and powerful, but also silent and demanding. Anna can be viewed as a representative of an older, less advanced human being, that must die for a new world order to take place: her daughter, who comes after her, belongs to a new species - the transhuman.

Geologist Paul J. Crutzen, who put the term Anthropocene[16] into a modern context, dates the beginning of the era as "the latter part of the eighteenth century (...) This date also happens to coincide with James Watt's design of the steam engine in 1784".[17] The invention of the steam engine is often said to be the root cause of the climate crisis and other ecological disasters that we face today. Thus, an interesting aspect of Hercules is the destructive force it represents. It is also the only character in the four (or five with Josephine) character chamber play whose interactions are not revealed to the reader. We are told that it has agency and a will of its own, but do not get to witness it.

When Franz presents the baby, which he names Josephine, to Beatrice and tells her that they are going to be foster parents, Beatrice seems content. Franz greases Josephine's pistons and feeds her with coal. When she is older, she spends her days in Beatrice's gondola when Franz is at work: "Beatrice radiated affection whenever the girl was near".[18] Belonging to two realms, the human and the other-than-human Josephine can communicate with both. When Josephine is four years old, despite not having vocal cords as we know them ("but instead a set of minuscule pipes arrayed in her larynx"[19]), she develops the ability to speak and delivers a message from Beatrice to Franz. Beatrice wants him to know that that is not her name, that Franz has treated her like a slave and has raped her "while pretending she was someone else".[20] It turns out that she hates him and that she wants to fly. Franz stands by helplessly while Josephine climbs into the gondola and flies away with Beatrice. The story ends with that scene, which is heavily symbolical. In it, Franz represents the old, outdated notion of what a human is and/or should be: male, white and a 'pure' human. In his perspective (and to a certain extent in the reader's) he is a romantic hero: a man who gives up everything for his love. The cause of his tragedy is that he took his human, male subjectivity for granted. Beatrice the first and the second were always his Other: a mute object of pleasure without agency, until Josephine gave Beatrice II a voice. That Franz never really recognised Beatrice as a subject, but instead treated her as an object becomes clear when he replaces Beatrice I with an identical airship and imagines that it will have the same feelings for him as he was convinced that the first Beatrice had.

Josephine, on the other hand, represents the future. She is the typical cyborg: half girl, half engine. She has the strength of a machine, but unlike her mute father she has the capacity for speech and can speak for or be spoken through by those who cannot. In this way, Beatrice can finally commu-

nicate her true feelings for Franz. To some extent, Josephine represents the transhumanist idea of the posthuman. Being both human and machine, she seems to have the advantages of both. However, as her body is constituted both by flesh and pistons, she does not represent what Braidotti calls "the trans-humanist fantasy of escape from the finite materiality of the enfleshed self".[21] In fact, Tidbeck's works seldom avoid the physical aspects of the body, such as its functions, fluids, smells, and sounds. Their writing is carnal in the widest sense.

Is the relationship with Beatrice II a metaphor for a human relationship, where the woman is given less power and agency than the man (Beatrice is, after all, female)? Or should it be read literally, as a relationship between a human and a machine? To answer these questions, we must first examine posthuman theories about the relationship between humans and machines. Donna Haraway,[22] Braidotti,[23] and N. Katherine Hayles[24] all agree that modern technology from the late 20th century and onwards, such as cybernetics, artificial intelligence, information technology and so on, blurs the boundaries between human and machine. Haraway writes: "Late-twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines".[25] As this technological progress has continued, Braidotti argues that "[t]he relationship between the human and the technological other has shifted in the contemporary context, to reach unprecedented degrees of intimacy and intrusion".[26] However, humanity has always had a complex relationship with machines, long before AI and cybernetics. Even though the machines in "Beatrice" are pre-cybernetic, they represent a kind of technological development that thoroughly transforms the living conditions of all organisms on the planet and not only those of humans. Thus, the historical importance of the steam engine and the airship is mirrored in the personal significance they have for the human characters in the story.

Even though cyborgs and enhanced humans are common tropes in science fiction, "Beatrice" is not that easy to categorise. Science fiction demands a *novum*[27] but we don't get any. There is no scientific explanation to why Beatrice and Hercules are conscious, nor to how a human woman and a steam engine could conceive a child. Therefore, they – and the story itself – cannot be inscribed in a conventional science fiction tradition[28]. Rather, we can locate Tidbeck's literary roots in the so called new weird fiction[29].

Subjectification, Objectification and Othering Practices

In posthumanist thinking, the subject is situated and dynamic, or "nomadic", depending on our circumstances and experiences.[30] When we otherise someone, we see them as fundamentally different from us and therefore objectify rather than subjectify them. In traditional humanist thinking, many groups of humans and non-humans have been othered:

> The dialectics of otherness is the inner engine of humanist Man's power who assigns difference on a hierarchical scale as a tool of governance. All other modes of embodiment are cast out of the subject position and they include anthropomorphic others: non-white, non-masculine, non-normal, non-young, non-healthy, disabled, malformed or enhanced peoples. They also cover more ontological categorical divides between Man and zoo-morphic, organic or earth others.[31]

Subjectivity cannot be exclusively reserved for certain groups of humans, or even for humans in general. At the core of the theories of philosophers like Braidotti and Haraway lies a post-anthropocentric and ecocentric worldview, in which positions of power and hierarchy between humans, non-human animals and ecosystems are renegotiated. This in turn leads away from dichotomies and othering practices. Furthermore, we all exist on a nature–culture continuum. We have more in common with some non-human animals than others. Apes and humans have more in common than apes and butterflies, for example. Humans and animals are not opposites, as Haraway famously writes: "By the late twentieth century in the United States scientific culture, the boundary between human and animal is thoroughly breached (---) language, tool use, social behaviour, mental events, nothing really convincingly settles the separation of human and animal".[32] Another false dichotomy on the nature–culture continuum is the man/machine dichotomy. As Hayles points out, "[c]yborgs actually exist. About 10 percent of the current U.S. population are estimated to be cyborgs in the technical sense, including people with electronic pacemakers, artificial joints, drug-implant systems, implanted corneal lenses, and artificial skin".[33] Hayles thus establishes that cyborgs manifest themselves both as technological objects and as discursive formations, i.e., narrative constructions.[34] Even though Josephine is a narrative construct, she is not unthinkable, and that is the allure of the literary cyborg.

Felix Guattari's theory on the technological subject, which he develops in *Chaosmosis*[35] sees the machine as an agent: "Another name for subjectiv-

ity, according to Guattari, is autopoietic subjectivation, or self-styling, and it accounts both for living organisms, humans as self-organizing systems, and also for inorganic matter, the machines".[36] Guattari asserts that "[m]achinic subjectivity, the machinic assemblage of enunciation, agglomerates these different partial enunciations and installs itself, as it were, before and alongside the subject–object relation. It has, moreover, a collective character, it is multi-componential, a machinic multiplicity.[37] According to Guattari,

> [t]he phylogenetic evolution of machinism is expressed, at a primary level, by the fact that machines appear across 'generations,' one suppressing the other as it becomes obsolete. The filiation of previous generations is prolonged into the future by lines of virtuality and their arborent (sic) implications.[38]

Braidotti concludes that

> Guattari's machinic autopoiesis establishes a qualitative link between organic matter and technological or machinic artefacts. This results in a radical redefinition of machines as both intelligent and generative. They have their own temporality and develop through 'generations': they contain their own virtuality and futurity. [39]

Josephine can be understood as a result of what Guattari calls "machinic heterogenesis", and Anna's death thus serves as a symbol for the obsolescence of the anthropocentric human.

In conclusion, I would say that Beatrice is not mainly a metaphor for an abused woman, because reducing her to a metaphor would take away the tangibility and retrofuturistic materiality of the machines in the narrative. As readers we can almost smell Beatrice's polished brass and feel her velvet seat. It would also distance the story from the intriguing issue of our relationships with the machines we surround ourselves with, the history we share and the ominous results of that history. The narrative instead invites us to imagine another world where machines can have feelings and desires that we identify as 'human' and to reflect on the consequences of issues such as objectification, othering, and agency. That said, Beatrice the airship is an Other, just as women so often are – in literature and otherwise.

Jagannath

What are the limits of mankind? In the Anthropocene, and in the light of scientific progress (here referring to scientific discoveries and scientific and

technological innovations), we need to ask ourselves what, if any, is the essence of mankind? Haraway discusses the boundaries between humans, animals, and machines. First, she concludes that "nothing really convincingly settles the separation of human and animal".[40] The next "leaky distinction" is the one "between animal-human (organism) and machine".[41] Here we need to examine the relations between humans and other-than-humans from different perspectives. Biological, ecological, moral, technical, economic, and reproductive aspects all need to be taken into consideration when renegotiating what a human can be or become. The human body is not a monolithic structure but an ecosystem of its own:

> What new microbiological research argues is that the human cannot be imagined as this bounded biological and psychological entity. The human body, this research argues, is an assemblage of thousands of species the members of which outnumber the cells of the human body. According to the most recent estimates, the human body is made up of roughly 3-3.7 trillion human cells, but it is also inhabited by 3-4 trillion bacterial cells belonging to 500-1000 different species.[42]

Thus, not even on a biological level are we who we think we are. We are not unitary, or definite monoliths, in either body or mind. This opens a creative space for new philosophical and poetic visions of the life, living and limits of humans as well as of other organisms. In Karin Tidbeck's short story "Jagannath", we are invited to imagine ourselves as existences living inside and in symbiosis with a creature that is both organism and machine – Mother. Mother is a self-conscious being and does not seem to have been created by man. Her origin is unknown to us.

Unlike in "Beatrice", where we are only presented with the fact that Anna is pregnant but get no explanation to how, here we are told a lot about the reproductive functions of Mother. The following excerpt describes the birth of the protagonist, Rak:

> Another child was born in the great Mother, excreted from the tube protruding from the Nursery ceiling. It landed with a wet thud on the organic bedding underneath. Papa shuffled over to the birthing tube and picked the baby up in his wizened hands. He stuck two fingers in the baby's mouth to clear the cavity of oil and mucus, and then slapped its bottom (---) Papa tucked her into one of the little niches in the wall where babies of varying sizes were nestled. Cables and flesh moved slightly, accommodating the baby's shape. A teat extended itself from the niche, grazing her cheek; Rak automatically turned and sucked at it. Papa patted the soft little head, sniff-

> ing at the hairless scalp. The metallic scent of Mother's innards still clung to it[43]

We are not told anything about Papa or his background but understand that his role is to care for the newly born. After they are born, Mother's system nurses them. Maternal instincts correspond in Mother to mechanical, automatic functions. The babies answer as babies do. Rak grows up and Papa tells her and the other children what they need to know about life. Rak is female and therefore a worker, since females are big and strong. Only a few male babies are born. Their role is to fertilise Mother's eggs and steer Mother. As they are tiny, they can fit into Mother's head. Mother combines features from machines, insects, and human beings. Her body is a mixture of flesh and cables, and she has mandibles and multiple legs. Her eggs are fertilised inside her body by her own offspring. She is thus almost a closed system – almost because she needs to feed and sometimes needs to mate, otherwise her genetic system will malfunction, and the fetuses become deformed. She can communicate verbally with her children and can express feelings for them. What we do not know is whether these are human features, artificial intelligence, or something else completely.

Rak is the focaliser throughout the story. The reader does not know anything that Rak does not about Mother or the outside world. The only thing that we and Rak are told is that Mother saved her ancestors a long time ago:

> "She took us up when our world failed. She is our protection and our home. We are Her helpers and beloved children". Papa held up a finger, peering at them with eyes almost lost in the wrinkles of his face. "We make sure Her machinery runs smoothly. Without us, She cannot live. We only live if Mother lives.[44]

What is mentioned is that 'our world failed' – presumably the human world – although we are not told how, why, or when this happened. Towards the end of the story, Mother tells Rak: "*Your ancestors used to live there. But then the cities died, and they came to me. We entered an agreement. You would keep me company, and in exchange I would protect you until the world was a better place*".[45] Thus, "Jagannath" is set in a postapocalyptic world, which we only get a few glimpses of towards the end of the story. We are told that there are other beings like Mother out there, but we do not know whether they too have entered a symbiotic relationship with humans or humanoid creatures. Rak's ancestors were probably human,

but as time passed, they must have become less and less so. Braidotti points to the "dialectics of otherness" as "the inner engine of humanist Man's power".[46] However, to otherise we need dichotomies and in "Jagannath" all concepts are blurred and mixed. Mother is both insect and machine (and human, in that she has coexisted with humans for generations in a symbiotic relationship, which has affected every part of her physical and psychological being). Rak and her siblings, although of human ancestry, get half their DNA from Mother and the other half from their own brothers, who also get half their DNA from Mother. Thus, we do not know what Rak looks like, but can only conclude that she is posthuman.

Just as we are inhabited by a multitude of species that help us function and which survive because of us, Rak and her siblings live inside Mother and help her to function:

> "I'm hungry", said Rak. Hap scraped at the wall, stringy goop sloughing off into her hand.
> "Here" she said. "This is what you'll eat now. It's Mother's food for us. You can eat it whenever you like."
> It tasted thick and sweet sliding down her throat. After a few swallows Rak was pleasantly full[47]

Rak works in Mother's belly, kneading her intestines to let the food pass and be absorbed. Other workers are placed in her legs, making them move. Mother is the workers' entire universe. The atmosphere is humid, warm, and penetrated by the sound of Mother's machinery/bodily functions and the workers' songs. Rak lives in this nourishing and safe environment for years, surrounded by soft flesh, intestines, wires, and cables. When a worker dies, she is absorbed by Mother and a new worker is fetched from the Nursery.

Following Haraway, the workers, the pilots, Mother, and Papa can be seen as holobionts:

> Like Margulis, I use *holobiont* to mean symbiotic assemblages, at whatever scale of space or time, which are more like knots of diverse intra-active relatings in dynamic complex systems, than like the entities of a biology made up of preexisting bounded units (genes, cells, organisms, etc.) in interactions that can only be conceived as competitive or cooperative. Like hers, my use of *holobiont* does not designate host + symbionts because all of the players are symbionts to each other, in diverse kinds of relationalities and with varying degrees of openness to attachments and assemblages with other holobionts.[48]

Mother is a network in which all parts must intra-act to function optimally. Therefore, neither the individual worker, nor Mother herself, can be construed as a subject in the traditional, humanist sense: autopoietic (self-organizing), fixed and unitary, but rather as sympoietic: complex and dynamic with no distinct boundaries between them.[48] The workers, although conscious, have no agency: already when they are born their faith is decided, and their place in the world is cut out for them. It could be argued that the interrelations are hierarchical with Mother at the top, followed by Papa, the male pilots, and the female workers at the bottom. However, it is more complicated than that. Even though she originally functioned as a host – "she took us up" – Mother now depends on all holobionts for her existence. Every component in Mother is needed and needs the others to exist. Mother is also dependent on other creatures like herself for her genetic system, and on the affordances of her surroundings to feed.

When it is Rak's turn to go to the Nursery to get a new worker, it turns out that no healthy babies have been born for a long time but have instead come out severely disformed and nonviable. Rak then crawls to Mother's head to find out what has happened. Already this initiative differentiates her from the other workers, including Papa. They never question the order of things but stay in their designated workspaces, and when Mother dies, they die with her. What made Rak act without being ordered to do so, when nothing in her life had prepared her to make such a decision? Rak's individualism cannot be explained by the affordances of her environment. Perhaps her curiosity is a mutation that, as the theory of evolution informs us, gives her greater chances of survival? Or is her sense of self a remnant from a time before the "world failed"?

When Rak reaches Mother's head she finds a dead pilot blocking the tubes and cables in her brain. She removes the body and Mother tells her: "*You can be my pilot*". For the first time she gets to see the outside world through Mother's eyes, and it is filled with colour and light. She sees abandoned cities, canyons, and grasslands, as well as the sky, sun, and stars. She also gets a glimpse of Mother's appearance: her many legs and her mandibles. Mother tells her the name of the things she sees. Even though Rak has removed the dead body from the tubes in her brain, Mother is still dying. Instead of dying with her, like all the others, Rak finds her way out of Mother. When Rak leaves Mother for the first time it is as though she has been reborn ("The aperture opened out between two of Mother's jointed

legs"[50]). From Rak's own perspective, this rebirth is described in the way we often imagine birth to feel like – terrifying, overwhelming, and exciting:

> The air coming in was cold and sharp, painful on the skin, but fresh. Rak breathed in deep. The hot air from Mother's insides streamed out above her in a cloud. The sun hung low on the horizon, its light far more blinding than Mother's eyes had seen it. One hand in front of her eyes, Rak swung her legs out over the rim of the opening and cried out in surprise when her feet landed on grass. The myriad blades prickled the soles of her feet. She sat there, gripping at the grass with her toes, eyes squeezed shut. When the light was a little less painful, she opened her eyes a little and stood up.[51]

When Rak leaves Mother's body she begins to transform. First, she has a dream in which she gains insect-like properties: "She dreamed of legs sprouting from her sides, her body elongating and dividing into sections, taking a sinuous shape".[52] When she wakes up, she sees a creature that reminds her of Mother, only smaller. It drops an egg-sack which Rak eats. By ingesting the offspring of another creature, she becomes one of them: "She ate until she was sated, then crouched down on the ground, scratching at her sides. Her arms and legs tingled. She had a growing urge to run and stretch her muscles: to run and never stop".[53] Out in the world, Rak can now become what she has the potential to be. However, her process of becoming is not a solitary one: it depends on the existence of others. The ingesting of the egg-sack is the start of a new sympoiesis.

Apocalypses

Human history is filled with imaginings of the post-Apocalypse, lively descriptions of heaven or hell in the Christian tradition, and in a more modern context, of post-apocalyptic existences a la *Mad Max* or McCarthy's *The Road*. In a secular tradition, post-apocalyptic life is often described as one of suffering and scarcity, although it can also mean rebirth and new possibilities. Even at the darkest time there is a glimmer of hope. A question that sometimes arises in the anthropocenic discourse is if humanity will destroy the planet beyond the chance of recovery, or if our time here will be one era amongst others in the history of the planet.[54] In "Jagannath", the apocalypse has rendered the cities unhabitable. It is unclear whether the word 'cities' is a synecdoche for the human habitat in general, or whether in this fictional universe people only live in cities. The humans who survived the apocalypse came to Mother and the holo-

bionic relationship began. The world, however, survived this apocalypse. Through Mother's eyes, Rak sees the sun, the starry sky, other creatures that look a bit like Mother and different landscapes. The world still exists, even though the human race is extinct – extinct because whatever Rak is, she is not human in the traditional understanding of the word. For Rak and her siblings, Mother's death constitutes another apocalypse. Mother was their universe (their Mother Earth) and when she dies most of them die with her. Rak survives because she can imagine another way of life. Apocalypse literally means revelation, and the outside world is revealed to Rak in Mother's final hours.

Concluding Remarks

In the two analysed short stories, subjectivity as we usually understand it – autopoietic, stable, and unitary – is put in question. Josephine and Rak are posthuman subjects, multifaceted and complex, taking part in various assemblages and networks. The old humanity, represented in Beatrice by Anna and Franz, and in Jagannath by Rak's ancestors, belongs to the past. The new human is mixed and blurred: part human, part machine, and/or part animal. The posthuman world belongs to them, and to others like them. Even though the short stories discussed in this chapter envision the end of humanity as we know it, they are paradoxically full of hope: they invite us to imagine a future where there are still grass, sunshine and breathable air. In that future, humanity in a new shape and form might get a second chance.

[1] Karin Tidbeck. *Jagannath*. London: Vintage, 2018.

[2] Rosi Braidotti. *The Posthuman*. Cambridge: Polity Press, 2013; Francesca Ferrando. "Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms: Differences and Relations", *Existenz*. Vol. 8, no. 2, 2013, pp. 26–32; Cary Wolfe. *What is Posthumanism?* Minneapolis: University of Minnesota Press, 2010.

[3] Pavlína Bakošová and Juraj Odorčák. "Posthumanism and Human Extinction: Apocalypse, Species, and Two Posthuman Ecologies". *Journal for the Study of Religions and Ideologies*. Vol. 19, no. 57, 2020, p. 53.

[4] Braidotti, *The Posthuman*, pp. 1–2.

[5] Braidotti, *The Posthuman*, p. 2.

[6] Although not always. Some scholars distinguish transhumanism from posthumanism.

[7] Ferrando, "Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms: Differences and Relations", p. 27.

[8] Tidbeck, *Jagannath*, p. 10–11.

[9] Tidbeck, *Jagannath*, p. 11.

[10] Tidbeck, *Jagannath*, p. 12.

[11] Tidbeck, *Jagannath*, p. 12.

[12] Tidbeck, *Jagannath*, p. 12.

[13] Tidbeck, *Jagannath*, p. 13.

[14] Tidbeck, *Jagannath*, p. 15.

[15] Tidbeck, *Jagannath*, p. 15.

[16] "From the ancient Greek word *Anthropos* meaning 'human being' and *kainos* meaning 'recent, new', the Anthropocene is then the new epoch of humans, the age of man" (Christophe Bonneuil and Jean-Babtiste Fressoz 2016, pp. 3–4).

[17] Paul J. Crutzen. "Geology of Mankind". *Nature*. Vol 415, no. 23, 2002, n.p.

[18] Tidbeck, *Jagannath*, p. 17.

[19] Tidbeck, *Jagannath*, p. 17.

[20] Tidbeck, *Jagannath*, p. 17.

[21] Braidotti, *The Posthuman*, p. 91.

[22] Donna Haraway. *Manifestly Haraway,* University of Minnesota Press. ProQuest Ebook Central, 2016.

[23] Braidotti, *The Posthuman*.

[24] N. Katherine Hayles. "Cognitive Assemblages: Technical Agency and Human Interactions". *Critical Inquiry*. Vol. 43, No. 1, 2016, pp. 32–55.

[25] Hayles, "Cognitive Assemblages: Technical Agency and Human Interactions", p. 11.

[26] Braidotti, *The Posthuman*, p. 89.

[27] Novum is a term coined by science fiction scholar Darko Suvin and can be explained as the technical and/or scientific innovations that make something possible that is impossible in our time, such as time travel. These innovations need to be scientifically explained. Magic is not involved.

[28] Thus, it is not surprising that one of Tidbeck's literary inspirations is the work of Ursula Le Guin.

[29] See f. ex Gry Ulstein. "'Age of Lovecraft'? – Anthropocene Monsters in (New) Weird Narrative". *Nordlit: Tidskrift i litteratur og kultur*, No. 42 (2019).

[30] Braidotti, *The Posthuman*, p. 189.

[31] Braidotti, *The Posthuman*, p. 68.

[32] Haraway, *Manifestly Haraway*, p. 10.

[33] Katherine N. Hayles. How we became Posthuman: *Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago & London: The University of Chicago Press, 1999, p. 115.

[34] Hayles, *How we Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, pp. 114–115.

[35] Felix Guattari. *Chaosmosis: an Ethico-Aesthetic paradigm*. Bloomington & Indianapolis: University of Indiana Press, 1995.

[36] Braidotti, *The Posthuman*, p. 94.

[37] Guattari, *Chaosmosis: an Ethico-Aesthetic paradigm*, p. 24.

[38] Guattari, *Chaosmosis: an Ethico-Aesthetic paradigm*, p. 40.

[39] Braidotti, *The Posthuman*, p. 94.

[40] Donna Haraway. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham & London: Duke University Press, p. 10.

[41] Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, p. 11.

[42] Johan Höglund. The Anthropocene Within: Love and Extinction in M. R. Carey's *The Girl with All the Gifts and The Boy on the Bridge. In Gothic in the Anthropocene: Darks Scenes from Damaged Earth*, Justin D Edwards, Rune Graulund and Johan Höglund (eds), pp. 253–269. Minneapolis: University of Minnesota Press, 2021, p. 3.

[43] Tidbeck, *Jagannath*, p. 103.

[44] Tidbeck, *Jagannath*, p. 104.

[45] Tidbeck, *Jagannath*, p. 110.

[46] Braidotti, *The Posthuman*, p. 68.

[47] Tidbeck, *Jagannath*, p. 105.

[48] Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, p. 60.

[49] Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, p. 58

[50] Tidbeck, *Jagannath*, p. 112.

[51] Tidbeck, *Jagannath*, p. 112.

[52] Tidbeck, *Jagannath*, p. 113.

[53] Tidbeck, *Jagannath*, p. 114.

[54] Dibley, Ben. "Anthropocene: The Enigma of 'the Geomorphic Fold'". In *Animals in the Anthropocene: Critical Perspectives on Non-Human Futures*, The Human Animal Research Network Editorial Collective (eds), 36–48. Sydney: Sydney University Press, 2015.

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"Machines Making Machines? How Perverse." Racism, (White) Sexual Anxiety, the Droids of *Star Wars* and the Prequel Trilogy

For an academic to say that racism is a pressing social concern seems to be almost a waste of breath in the present political climate and justifying that concern in an article as *almost* a waste of paper. Nonetheless, racism has been described over the years as "chameleon-like"[1] or "amazingly elastic"[2], subject to a "conceptual inflation"[3] and buried in "metonymic elaborations" and "coded signifiers".[4] To this day, anti-racist efforts seem only partially effective and are described as "always trying to catch up"[5] but never being quite able to do so. For all the consensus one might find over the inaccuracy and detrimental nature of racist ideologies, one of the main problems facing scholars is identifying racism concretely, not to mention working out how to combat it.

Speculative fiction, meanwhile, has risen from relative economic and critical obscurity at the start of the twentieth century to become one of the largest and most profitable genres of the mass media in the present day. Among the productions of speculative fiction, the Star Wars franchise remains particularly prominent. According to an estimate by *Fortune* in 2015, the Star Wars franchise was already worth roughly 42 billion dollars,[6] a figure that has since nearly doubled, reaching 70 billion.[7] [8] This measure covers the franchise's monetary gains in box office revenue, home entertainment sales, toys and merchandise, video games, intellectual property value, books, tv series, licensing fees and collectable resale markets. Spread across all these areas, the franchise's size and ongoing potential cultural impact

are unmatched. Understanding the ideological makeup of the series is thus crucial to understanding its impact in broader society.

Because of this, any overlap between the ideological makeup of the *Star Wars* series and the ideologies of racism must be of the utmost critical concern. To address that concern I attempt here to do a reading of certain parts of the series using the entry point of the droid characters, who I examine through the lens of Richard Dyer's findings on the role of whiteness in western cinema. This reading provides valuable insights into the ideological foundations of the *Star Wars* series and sheds light on some of the many ways in which racial ideologies are often inadvertently concealed and transmitted in popular culture.

Of course, the ideological foundation of the *Star Wars* franchise has not been entirely consistent. In particular, the later films, from Episode VII onwards, seem to take a distinctly revisionist stance towards the messages of their predecessors. To allow for some consistency, I restrict my examination to the original *Star Wars* film and the *Star Wars* prequel trilogy. The prior provides a good starting point for understanding the themes I discuss, while the latter builds on those themes toward interesting conclusions. I put less emphasis on *Star Wars: The Empire Strikes Back and Star Wars: The Return of the Jedi* due to their lesser focus on the droid characters. Whilst not chosen for that purpose, the films that are focused on represent all the *Star Wars* films that have been personally directed by George Lucas. This directorship may have contributed to the consistent droid presentation.

I begin with a summary of Dyer's perspective on whiteness as he relates it in his influential work, *White: Essays on Race and Culture*.[9] I then touch lightly on some readings by previous scholars of the droids of *A New Hope* as (racialised) Others. Working from this foundation, I examine the presentation of the two main droids (C-3PO and R2-D2) in *A New Hope* using Dyer's perspective. I argue that the droids display the fundamental traits of whiteness, often to a more extreme degree than actual white human characters. Nevertheless, their social position and treatment by other characters, including sympathetic protagonists, do not match the hierarchical position usually associated with whiteness. I attribute this and related contradictions to the work unreflectively trying to create sympathetic non-human characters who are heroic (a traditionally white-coded position) while still making them subordinate to and other than default humanity (also traditionally defined as white). The discussion then proceeds to the prequel trilogy, giving special attention to three key segments: the first introduction of C-3PO, the

first introduction of R2-D2 and the droid factory sequence (with the subsequent battle scene). I argue that the superlatively white traits of the main droids are extended further beyond the realm of human possibility in the prequel movies, now extending to their mode of production. Furthermore, the films present battle droids as distinctly non-white,[10] and their mode of production reflects this. This correlation between the presence of or opposition to white traits with specific production modes resonates strongly with the white sexual and reproductive anxieties identified by Dyer.

Dyer's study was not blind to the role of androids. In his analysis of the perceived symbolic connection between (racialised human) whiteness and death, he describes the android as the "definition of whiteness, the highest point of human aspiration", one which ultimately reveals "that to be white is to be nothing".[11] While Dyer's ultimate goal is to show the android as symbolic of the emptiness and lifelessness he sees in popularly (i.e. by whites) conceptualised whiteness, his words nonetheless ring true of a more significant trend among the intelligent non-human creatures of speculative fiction. However, even though the examples Dyer cites (the android, Ash, from the *Alien* films and the replicants of *Blade Runner*) reflect his traits of whiteness, not all fictional androids are similarly white. Moreover, their relationship (sometimes oppositional) to whiteness is deeper and more complex than Dyer acknowledges. That relationship can link intricately with the same themes of sexuality and reproduction that Dyer sees in his analysis of whiteness in Western visual culture. Dyer actually dismisses reproduction as being relevant to androids, as they "cannot reproduce themselves [...] at any rate sexually as opposed to technologically".[12] I disagree with this for reasons demonstrated later.

Nonetheless, Dyer's work provides an essential key to understanding the ideological makeup of the *Star Wars* films. Since its original publication in 1997 (with several new reprints in recent years), Richard Dyer's White has easily become the most influential and oft-cited work in the study of whiteness to date. Furthermore, it is of particular use here due to its status as a work contemporary to the release of the *Star Wars* prequel trilogy, being published only a short time before the release of the first of the films and offering a look at patterns of portrayals in cinema and other forms of visual culture leading up to the films' production.

Its most oft-cited insight is into how whiteness functions as an unseen, default status in western representations of race in visual media, noting how "[o]ther people are raced, we [whites] are just people"[13] and how "[a]t the

level of racial representation, in other words, whites are not of a certain race, they're just the human race".[14] What is even more important here is Dyer's contribution to the understanding of the way the spirit/body division is portrayed differently for whites than for non-whites. According to Dyer, whites are defined by "spirit" and a "get up and go" attitude and by the fact that "the white spirit could both master and transcend the white body, while the non-white soul was a prey to the promptings and fallibilities of the body".[15] According to Dyer, whites are portrayed as masters of their physical forms and defined by their spirit and intellectual qualities rather than their bodily forms. In contrast, non-whites are shown as being defined more exclusively by their bodies. White character, then, is defined by "energy, enterprise, discipline and spiritual elevation" and white bodies by "hardness and tautness ([. . .] often unfavourably compared with the slack bodies of non-whites)", and "upright-ness".[16] The relative slackness of non-white bodies is often seen as an advantage in pursuits such as dancing,[17] and non-white people, especially blacks, have been attributed exceptional athletic abilities.[18]

However, this perspective leads to concerns about certain white *in*capabilities, particularly in the area of sexuality and reproduction.

> The problem is that whites may not be very good at it [sex and reproduction], and precisely because of the qualities of 'spirit' that make us white. *Our minds control our bodies and therefore both our sexual impulses and our forward planning of children. The very thing that makes us white endangers the reproduction of our whiteness*.[19]

According to Dyer, the problem is that the perceived non-whiteness of non-whites and their stronger link to their bodies is thought to make them more sexually driven, thus causing them to produce more offspring and putting whites at a reproductive disadvantage. This perception leads to white anxieties about being outproduced by non-whites and related anxieties about the rape of whites (predominantly white women) by non-whites,[20] thus corrupting the whiteness of their offspring and blurring the divisions between whites and non-whites.[21] These anxieties contribute to what Dyer calls the

> conundrum of sexuality for whites, the difficulty they have over the very mechanism that ensures their racial survival and purity, heterosexual reproduction. To ensure the survival of the race, they have to have sex – but having sex, and sexual desire, are not very white: the means of reproducing whiteness are not themselves pure white.[22]

According to Dyer, this conundrum yields fears of overcrowding or "swamping," in which the faster-reproducing non-whites out-populate and overwhelm the smaller number of slower-breeding whites.[23] This outnumbering may occur via miscegenation (possibly aided by either rape or their superior sexual prowess), mass immigration, or simply reproducing faster than the older inhabitants of the country after arriving.

Given the reproductive implications of whiteness, it may be no surprise that it bears a gender dimension. White men and white women are thought to experience their whiteness differently.

> The white man has – as the bearer of agony, as universal subject – to have the dark drives against which to struggle. The white woman on the other hand was not supposed to have such drives in the first place. She might discover that she did and this is the stuff of a great deal of Western narrative, but this was a fall from whiteness, not constitutive of it, as in the case of the white man's torment.[24]

These drives are, of course, sexual. "White men are seen as divided, with more powerful sex drives but also a greater will power."[25] Women are more passive, lacking these drives, but as a result are also, as Dyer notes, more fundamentally white. Taken to an extreme, feminine whiteness can develop irreconcilable contradictions, as Dyer quotes from the work of Marilyn Frye, who studied the discourse of the Klu Klux Klan.[26] That discourse saw white women as having a duty to produce children, but "to imagine them having sex and being delivered of children is scandalous and virtually sacrilegious".[27] A woman should be "a pure vessel for reproduction who is unsullied by the dark drives that reproduction entails".[28]

This gender difference has also had implications for visual effects. Idealised white women glow (specifically glow, rather than shine, the latter of which implies sweat, which is associated only with men or less idealised women).[29] Men are more likely to have visible shadows on their features, while for women these are more aggressively eliminated.[30] Simply put, "the man is darker: his clothes are more sombre, his fair body is more covered, what is visible of his flesh is darker, light falls less fully on him. There is almost never any departure from this – it is as true of art cinema and pornography as of mainstream movies".[31] Three-point lighting is used to achieve the desired glow for women, particularly on the hair, and makeup and white clothing can similarly be used to add to the effect.[32]

It may seem like a conceptual leap from seeing these traits in white and

non-white humans to seeing them in intelligent non-humans. Nonetheless, seeing non-humans in science fiction as representations of human Otherness is not new. Many scholars have linked intelligent non-human creatures of science fiction to real-world Others, such as Daniel Bernardi's claim that "[a]liens [...] can be said to be always already real world peoples – signifiers of nations, cultures, and identities – simply because there are no real space-time referents for living and embodied extraterrestrials".[33] According to Bernardi, such creatures (or at least aliens) are necessarily representations of real-world peoples simply because they must be representative of *something* real, and there are no actual aliens on which to base them. Gwyneth Jones expresses the same sentiment: "As long as we haven't met any actual no-kidding intelligent extraterrestrials (and I would maintain that this is still the case, though I know opinions are divided) the aliens we imagine are always other humans in disguise: no more, no less."[34] Meghan Gilbert-Hickey and Miranda Green-Barteet cast the net wider and see "racial markers [...] displaced by categories of otherness" including "extraterrestrials, cyborgs, telekinetic and intellectual powers, and technological adaptations".[35] According to Elizabeth Ho, such use of "metaphorical race" is "a common strategy in YA supernatural fiction" which "depends on the use of supernatural characters—vampires, werewolves, and the like—to serve, with greater or lesser success, as imaginary solutions to real racial problems".[36] Patricia Melzer described the use of aliens to deal with issues of racism but suggested that it is often poorly done:

> [x]enophobia and racism in science fiction are usually transferred onto representations of aliens. These symbolic representations often replace any direct discussion of racism and fail to really address the problem.[37]

These same arguments could easily extend to droids or other sapient artificial intelligences. If like these authors we take it for granted that such creatures must have *some* real-life referents, then those referents must include humans (though they may include other things as well). If the droids are seen as a collective group, their human referent must be something that is identified as a collective as well. Nevertheless, the reference to humanity need not be specific. While I concede that our frameworks for conceptualising intelligent Otherness are limited to the human, I do not support any implication that fictional groups must *necessarily* be analogues to *specific* real-world groups. Speculative fiction texts construct many intelligent non-humans in reference to other intelligent

non-humans from the same genre. Elves imitate other elves and goblins other goblins in a line of heredity that links them only distantly, if at all, to specific human stereotypes. Fictional races no more need to be analogues of specific, real-world races than fictional characters need to be analogues of specific, real-world people.

Several interpretations see Otherness, and especially racial Otherness, as being enacted among the droids of the *Star Wars* films. These perspectives need to be accounted for if we are to find whiteness (functionally the opposite of Otherness in its naturalising effects) at work in the droids' construction. Dan Rubey, to start with, sees the films as filling the "chief emotional satisfactions of racism", "making use of and supporting racist habits of thought" and having a "race hierarchy" with robots at the bottom.[38] On a somewhat related note, J. P. Telotte sees *Star Wars*'s droids epitomising the mechanical and logical forces that are also at work in the Death Star, thus helping to emphasise the hierarchy of human over non-human (and living over non-living). According to Telotte, "[t]hey are essentially slaves to a superior mankind, embodying a romantic dream of obedience and dogged faithfulness to a master".[39] Similarly, Diana Sandars sees robotics as a counterpoint to humanity. According to Sandars, Darth Vader is "android-like" due to having "vanquished his human nobility",[40] a description which suggests an implicit valuing of human over android. However, not all the readings condemn or reflect negatively on the droids' portrayal. For example, Lane Roth sees only *unsympathetic* characters, the 'cynical' Solo and the 'gruff' bartender (the latter openly discriminates against the droids), epitomising this antimony. In contrast, the more sympathetic Obi-wan Kenobi "treats the droids more kindly".[41] According to Roth, discrimination is exclusively the domain of unsympathetic characters, while the films do not necessarily support or encourage the kind of hierarchy such relations represent. All these readings focus on the droids' treatment or hierarchical position. I do not dispute the claims that the droids have a low social position but tend to disagree with Roth's claim that the didactic stance of the narrative is against their mistreatment. However, I argue that their hierarchical status is fundamentally at odds with how they are constructed (no pun intended) in a narrative that otherwise supports traditional (i.e. white, male-dominated) hierarchies. They are subordinate yet improved (compared to traditional portrayals of non-whites), even though these improvements fundamentally undermine the rationale for their subordination.

Many writers have expressed concern over racism and the intelligent

non-humans of the prequel trilogy, especially in response to the first film. Will Brooker offers a broad summary of the interpretations (scholarly and non-scholarly) of three creature types. The first of these is embodied by the gungan, Jar Jar Binks, which Brooker summarises as "an offensive caricature of Caribbean, Jamaican or African-American culture".[42] The second, Watto, a toydarian, is seen as "an anti-Semitic stereotype, whether of Jewish or Arabic culture".[43] Finally, according to Brooker the nemoidians were, "accused of exhibiting stereotypically 'Japanese' accents and behaviour".[44] Notably, Brooker does not fully commit to these interpretations, but they are representative of numerous responses. Andrew Howe takes a similar look at the series as a whole. He rejects many interpretations of non-humans as racial Others, with the notable exceptions of the sand people, whom he sees as "a distinct analogue to the Bedouin and other such desert-dwelling nomadic cultures"[45] and Jar Jar Binks, where he states that "[s]ome of the criticism levied against Jar Jar Binks is legitimate, as actor Ahmed Best played the Gungan with an accent and cadence similar to Caribbean speech patterns. However, the similarities to this culture end there". [46][47] However, such responses have mostly neglected the role of droids in the prequel trilogy; a neglect that appears to have foreclosed a crucial perspective for understanding the racial ideological underpinnings of the films.

Similarly, patterns of sexuality and virginity and the implications thereof (particularly Anakin's transformation from innocent virgin-born virgin to his corruption by sexuality) in the prequel trilogy have already been noted by scholars like Roger Kaufman. Kaufman claims that "[t]he more fateful, destructive liaison between Anakin and Padmé suggests that Lucas is intentionally making a comment about the personality-degrading, society-destroying dangers of unbridled heterosexual desire".[48] However, links between sexuality and droid (re)production remain largely unexplored.

White Robots in the Original Trilogy

Two droids get our attention more than any others during *A New Hope*, namely R2-D2 and C-3PO. The latter could be described as a gold-plated humanoid and the former as a dustbin on wheels. On the surface they are far from white or even human. On closer scrutiny, though, many of their features resonate strongly with Dyer's model. I first of all argue from within that model to show that the droids have the traits that are usually

used to rationalise the superior position of whites in the social hierarchy. I then contrast this with the ways in which the film constructs the droids' social position in defiance of the model's implications and places them in a superlatively low yet not consistently defined social position. I hypothesise that the contradictions inherent in this portrayal possibly stem from an unreflective attempt to reconcile the heroic (traditionally white-coded) and subordinate (traditionally non-white-coded) positions of the droids.

The most obvious of the droids' white-coded traits is their outward colour. While droids appear in the films as grey, brown, black, red-and-white and so on, R2-D2 is white with blue highlights and C-3PO is, as already indicated, golden. R2-D2's colouring could be said to be a mechanical analogue to white skin and blue eyes and C-3PO to blond hair, but these are relatively superficial. In fact, they can *almost* be discarded. Even in the case of humans, Dyer notes that "skin colour is not really just a matter of the colour of skin",[49] as demonstrated by everything from the non-effect of tanning on one's racial classification[50] to the way in which light-skinned groups have often been constructed as non-white.[51] The colouration of the droids is noteworthy but not a definitive indicator. Their whiteness is signalled much more strongly by their having the invisible traits of whiteness.

The most superficial of these can appear in the 'tautness' and 'uprightness' of the droids' bodies. Far exceeding the tautness of the human characters, C-3PO's joints can barely bend at all, while R2-D2 has very few joints to begin with. There is no exceptional looseness or athletic prowess to be seen in them, which might otherwise mark them as non-white. Their dancing ability, likewise, can be assumed to be mostly non-existent (something that would be demonstrated only at the end of *The Return of the Jedi*, released several years later).

According to Dyer, in human whites this tautness was thought to be indicative of a greater separation between spirit and body. In R2-D2 and C-3PO's situation this is definitely the case. C-3PO makes the separation explicit when in one scene he refers to his body as something external to himself and cries: "curse my metal body" when he does not feel he has responded to a situation quickly enough.[52] Both droids have skill sets focusing on the intellectual realm, from a knowledge of languages or mechanics to the ability to hack other computer systems. In terms of being representative of civilisation and civilised practices, it is difficult to surpass C-3PO, who was "designed for etiquette and protocol".[53] This point, combined with his general attitude and mode of speech (including his accent, which has

certain stereotypes in American cinema), makes him an outright caricature of civility. On the other hand, R2-D2 expresses a great deal of 'spirit' and 'get-up-and-go' attitude in pursuing his mission, surpassing the reluctant C-3PO.

Even though both droids are characterised as male, both through the use of pronouns and their voices (R2-D2's electronic beeps are heavily modulated speech from a white male's voice), their portrayals resonate with conceptions of feminine whiteness as much as masculine. While the main white human male characters struggle against a variety of 'dark desires' (lust, greed and the dark side of the force) in all parts of the series, C-3PO and R2-D2 appear to have no biological urges whatsoever. Although C-3PO expresses an expectation of pleasure over a coming autobath, he shows no sign of longing for it otherwise, and at no point does the desire for a bath influence his actions. Likewise, he shuts himself down at Obi-wan's residence in a conscious decision to save power taken after consulting his owner and assessing its possible effects (by ensuring he will not be needed in the short term), without expressing anything equivalent of fatigue or hunger. The colouration and the lighting effects they receive in A New Hope are ambiguous and are sometimes akin to those idealised white females receive. Princess Leia is always well-lit with few shadows, light in colour and never arrayed in dark clothing. The droids are often portrayed similarly, although several scenes show them in shadow or in sharp contrast. Interestingly, there are fewer of these scenes in the later releases of the films. The original screen version much more readily places the droids in shadow, but later edits have increased the lighting on them dramatically. Unlike idealised white females, they hold their status without significant contradiction. After all, they have no sexual urges, but neither are they expected to bear children. It is worth noting that C-3PO shines rather than glows and both are allowed to get dirty; something that is historically unthinkable for an idealised white female star. Notably, Leia's dress also has smudges during the Death Star escape, something that is never allowed to happen to Padmé in the prequels. While they are allied more strongly to the female style of representation, they are not wholly wedded to it.

If they are otherwise equivalent to whites (or at least to white women), the social position of the droids does not reflect this. As might be befitting of creatures occupying the lowest animate rung on *Star Wars'* great chain of being, droids occupy a liminal position in the work, somewhere between living beings and inanimate machines. While they command our sympathies

as full characters for most of the adventure, and while other characters at times treat them with respect (or disrespect) as people, various actions, even by the protagonists, presuppose that the droids are inanimate tools. One of the most striking examples of this appears in the scene where Luke prepares for his climactic attack on the Death Star. When a pair of technicians load R2-D2 into his x-wing one of them notes that his "R2 unit looks a bit beat up" and asks if he wants "a new one".[54] Luke laughs this off, declines and expresses an attachment to R2-D2 by saying, "Not on your life. That little droid and I have been through a lot together."[55] If R2-D2 was substituted with a human character for this scene the scenario would become absurd in the extreme. One can hardly imagine the technicians encountering a human rebel hero who smuggled the stolen plans, escaped from slavery, infiltrated the Death Star while hacking and compromising its systems and made the very attack they were about to set out on possible, then offering to replace or even discard him because he "looked a little beat up".[56] A human might wear such battle scars as a point of honour, but for a droid they merely make him a damaged tool that ought to be replaced by one in better condition. This opinion is strangely reversed a few scenes later when R2-D2 returns from the battle in far worse condition and is restored by the same technicians to perfect repair rather than merely scrapped. Luke's response (and his interactions with R2-D2 in general) seems analogue to the behaviour toward a pet rather than a tool or comrade-in-arms.

This pattern continues throughout the film, with similarly inconsistent implications. When R2-D2 enters the escape pod early in the film, C-3PO warns him that he is "not permitted in there" and can be "deactivated" (presumably the droid equivalent of killed) as punishment.[57] While one can imagine that threatening the death penalty for daring to use the escape pods may be ineffective (especially since the result of *not* using the escape pods is usually also death), and this certainly reflects strongly on the kind of value placed on droid lives, this scene is particularly notable for its reflection on the status of droids as tools or people. Treating their lives so cheaply implies that they are seen as tools here yet one does not expect to keep tools in line with threatened punishment. If they were mere hardware they ought to be controlled by correcting their programming, not by threatening retribution for misbehaviour. Comments like this, along with C-3PO's later comment, "You're lucky he doesn't blast you into a million pieces right here!"[58] only make sense when acknowledging the droids' genuine self-interest and free will.

Luke's comment in the desert that he has "never seen such devotion in a droid before"[59] raises the same sort of contradictions, as it would make no sense to speak of "devotion" in a tool, whose sense of loyalty ought to, at best, be a setting that can be adjusted easily, or at worst, not exist at all. Again, Luke looks at the droids as pets rather than as tools or people. Meanwhile, the droids tend to treat one another as people rather than as tools. As Roth pointed out, Obi-wan lists them as "passengers" and not as "cargo" when discussing passage aboard the Millennium Falcon. The rejection of the droids by the bartender in the Mos Eisley cantina, whatever else it may say about their social status, also presupposes their status as people. Devices might be rejected by saying they were 'disallowed', thus casting them as tools that their owner brings in or leaves outside. However, the exclamation of "We don't *serve* their kind here"[60] (my emphasis) portrays them as potential service recipients and thereby reinforces their status as people.

Droid actions may also be ignored, such as Han's failure to acknowledge C-3PO's "Hello, sir!"[61] at their first meeting. Much more significantly, in the award ceremony not only are the droids not given medals, but R2-D2, arguably one of the most prominent, effective and heroic characters throughout the whole adventure (not to mention the one wounded in the course of duty), is not even waited on before the ceremony begins. He has to slip in late behind C-3PO during the proceedings. When the droids are absent, such as when they hide from stormtroopers in Mos Eisley, the main human protagonists give no thought as to their whereabouts.

Of course, this lack of acknowledgement of droid agency sometimes works to their advantage. When the Imperials fail to fire on the droids' escape pod in the early scenes, they base their decision on the assumption that a lack of life forms represents a lack of ability to act or resist. Droids are sufficiently commonplace that the lack of consideration for the possibility that there could be droids aboard the pod or that the droids' escape could prove problematic is extremely telling of the assumptions made about them. Similarly, while the biological heroes have to struggle around the Death Star with great difficulty, the droids can move with impunity. The stormtroopers readily accept their deceptions and fail to acknowledge that non-biological creatures can be a threat. They do not recognise them as intruders despite droids like C-3PO, which Owen Lars can recognise at first glance as being "for etiquette and protocol", being veryout of place in a military facility.

As the analysis so far has demonstrated, droids may be killed for minor infractions, such as trying to save their own lives in an escape pod or pos-

sibly just looking too beat up on the eve of a major battle (it is not clear whether R2-D2 would have been discarded or just sent down to maintenance and left out of the battle, or whether the distinction between the two options hinges on costs and materials or the value of his life). They are also enslaved and can have their memories erased at the whim of their owners, as evidenced by Uncle Owen's instructions to Luke. In the most explicitly racial of all points of discrimination against them, they could be subject to Jim Crow-like exclusion, as demonstrated in the cantina scene. This comes complete with the all-too-familiar phrasing of "[w]e don't serve their kind here", a strong echo of what non-whites have faced in Western nations for centuries. Droids are wholly marginalised in the society of the films.

No white men, white women, non-human biological characters, or (later in the series) non-white men (non-white women remain absent throughout the first trilogy) encounter any of the above problems. Despite the droids having white, even superlatively white traits, their treatment and social position are far worse than those lacking such traits. While there are many possible explanations for this, I would suggest that the apparent contradiction stems from assumptions that the creators have not fully examined. Among these is the assumption that, as machines, the droids are fundamentally tools and thus subservient to (biological) living beings, especially (white) humans. At the same time, as the droids represent fantastic and even heroic elements, they are to be admired. Thus, they are imbued with the admirable qualities that are taken for granted in (white) heroes. The contradiction occurs when these admirable qualities invalidate the traits used to rationalise the subordination of machines (lack of free will and self-awareness) and those used to rationalise the subordination of women and non-whites (lacking the traits of male whiteness). Here, the portrayal of droid subordination is left largely unsupported. *The droids act as servants for humans simply because that is what droids do*, which is taken for granted by their human masters and the droids themselves. This assumption has a strong resonance with many racist positions.

The analysis of *A New Hope* indicates that the droids, R2-D2 and C-3PO, are constructed (again, no pun intended) within the frameworks of whiteness described by Dyer, albeit somewhat more closely allied to female whiteness despite their characterisation as male. Despite their whiteness, their hierarchical position is lower than that of whites of either gender, non-white humans, or even other non-humans within the franchise. Carrying this reading to the prequel trilogy reveals more fully the contradic-

tions implicit in presentations of female sexuality. It also displays droids constructed as non-white (the battle droids), who provide an outlet for the full range of white sexual anxieties and fears regarding non-white peoples. This illuminates a fundamental divide amongst the intelligent non-humans of speculative fiction (from elves to zombies) that plays off the sexual anxieties described by Dyer to interlink gender, race and sexuality in the various non-human identities.

Droids of Many Colours

In that light, there is little new in the prequel films to observe in the hierarchical position of the droids, save a larger acknowledgement of their agency on all sides. Anakin emerges as a character who, even up to his last interaction with the main droids in *Revenge of the Sith*, treats them with respect and protects them from discrimination (including Obi-wan's "loose wire jokes"[62] and defending R2-D2 from his criticism). Otherwise, the droids encounter many of the same forms of oppression. They are still subservient, R2-D2 is denied service because he is a droid (on the freighter transporting Anakin and Padmé back to Naboo) and C-3PO's mind is wiped at the end of the trilogy.

Much more information is given about their whiteness and the relative non-whiteness of their counterparts, the battle droids. Most of this new information can be gleaned from an analysis of three critical scenes across the two first films, which provide information about the production of droids in the *Star Wars* universe. The first two are the first scenes to introduce C-3PO and R2-D2 during *The Phantom Menace*, while the third is the scene (or scenes) surrounding the battle droid factory in *Attack of the Clones*.

The first of these further strengthens the reading of C-3PO as a white-constructed yet hierarchically subordinated being from the first film. His creation is patterned in a way that falls even more in line with Dyer's description of whiteness than his general portrayal during the first film. His creator builds C-3PO exclusively on a rational decision ('forward planning') and through the highly intellectually focused activity of assembling advanced technology, rather than through sexual intercourse. The environment is clean and even physically light. Unlike the 'not pure white' means (sex) of producing whiteness that Dyer identifies, C-3PO's production is extremely 'white' within the same conceptual framework. To emphasise the asexuality of it, not only is C-3PO produced deliberately and asexually by a

single virgin parent, but that parent is himself the product of a virgin birth. Truly a white ideal in its separation from 'non-white' sexuality, it further aligns C-3PO to the feminine side of whiteness by distancing him from 'dark' (sexual) desire and simultaneously sidesteps the problem of feminine sexuality by providing (re)production utterly devoid of female involvement.

This pattern is imperfect, though. For one thing, when we first see C-3PO activated and his final eye is attached, his creator is trying to impress a girl. Furthermore, if Anakin has been created by Sith power, as is suggested in the third film, he may be a product of passion (a literal 'dark desire' in the form of the dark side of the force), if not sexuality per se. Even with the qualifications for Anakin's 'virgin birth', his birth does not avoid the matter of female childbirth, only female sexual relations, as his single parent is a mother and not a father. Nonetheless, Padmé does not directly involve herself in C-3PO's construction, and having one male parent and no female, regardless of how 'virgin' that parent's birth was, C-3PO remains much 'whiter' in his production (separated from 'dark' sexuality or bodily urges) than any biological hero introduced in the films. As before, his alignment to female whiteness, rather than male whiteness, also remains imperfect, as evidenced by his darker appearance. Being without coverings ('naked' to use the word C-3PO interprets from R2-D2),[63] he is coloured darkly, shows sharp shadows and contrasts and does not glow. This glimpse into the literal inside of C-3PO is the closest the series comes to exposing him as having the internal 'darkness' associated with white men. This further emphasises the already-noted trends in his relative whiteness in the earlier film.

Unlike C-3PO's, R2-D2's creation does not appear on screen, although in the scene in which he is introduced we have some clues as to its nature. For one thing, Captain Panaka describes him as "an extremely well-put-together little droid". The choice of referring to R2-D2 as being "well put together" rather than a "quality model", suggests individual craftsmanship, although does not certify it. For another, we see him first with a collection of other astromechs, no two of which are identical (the droid next to R2-D2 is very similar to him but its legs are different). This again suggests individual craftsmanship rather than mass production. While we do not learn in the films when or where R2-D2 was created or by whom, there is at least some indication that his production was similar to that of C-3PO, involving hand craftsmanship and some individual attention to detail. Individual craftsmanship suggests forward planning and control over the numbers produced, which a scenario involving mass production would not imply. This

'forward planning' matches how whiteness (via white children) is reproduced in Dyer's model. Given his non-biological nature, we can assume that R2-D2's creation was not literally sexual. Nevertheless, the presence (or absence) of symbolic sexuality is essential, especially when making comparisons with the readings of battle droid production detailed later. If Dyer identified sexuality as being "not pure white", R2-D2's production as being devoid of symbolic sexuality, in contrast to the battle droids (explained later), indicates whiteness on his part, which the battle droids will be shown to lack.

Unlike R2-D2 and C-3PO, the battle droids *are* mass-produced in a giant plant akin to a vast, mechanical womb. Rampant sexual imagery surrounds their production. This imagery ranges from protruding, phallic mechanical arms to the rhythmic pounding of machinery to sudden cutaways to telescoping pipes, which grow in length before spewing hot molten metal into waiting receptacles and then shrinking back to their original size.[64] The dark and dirty environment likewise provides a sharp and ominous contrast to the clean, well-lit room of C-3PO's creation (being visually black rather than visually white). If the sinister sexual implications of the environment are not immediately apparent to the viewer, C-3PO himself soon arrives on the scene to describe what he sees as "perverse".[65] Even without the sexual imagery, if machines are, as has been suggested, constructed akin to *female* whiteness, C-3PO's comment of "machines making machines"[66] as perverse could already be justified by reference to the contradictions of female sexuality noted by Dyer and Frye. Other sexuality aside, the fact that the (female) machines reproduce at all can be understood as a sort of perversion.

In keeping with portrayals of white/non-white sexuality as 'rape', white (or functionally white) characters who trespass in this symbolic womb face symbolic sexual violation. For the males it means a form of symbolic castration. C-3PO experiences this in the form of a non-lethal decapitation (and subsequent transplanting onto a new body), Anakin through the severing of his lightsabre, the classic Jedi phallic symbol.[67] Padmé's fate is arguably bleaker. She is made into an iconic white female, her whiteness emphasised by an ensemble of all-white clothing (which somehow remains spotlessly clean throughout) and accented by frequently having her move in and out of bright, direct lighting. These combine to make her glow on screen with whiteness and purity. As Dyer identified as typical for white females, her role is to be threatened with rape by a non-white aggressor and then rescued

by a white male. In this case, the symbolic rape is enacted first through a grappling match, where she is overpowered by a dark-bodied alien, then by the alien flinging her into one of the passing buckets, within which she is threatened with destruction, both symbolic and literal, at the hands of one of the aforementioned telescoping liquid-spewing tubes. She is rescued from this climactic (pun intended this time) death only by the timely intervention of R2-D2, now filling the role of the white male and thereby further emphasising his own whiteness.

The battle droids, produced through this 'perverse' sexualised process, explicitly re-enact white anxieties. They are twice described as outnumbering and "overwhelming"[68] the less numerous Jedi (first in the title scroll and then by Count Dooku). The ensuing battle brings these fears to a realisation. The Jedi are threatened with destruction by the more populous and faster-produced droids and are saved only by the timely arrival of mass-produced fighters of their own. The swamping and overwhelming of the Jedi is emphasised by several high-angle shots depicting the emergence of the battle droids like an actual flood, washing over the arena and forcing the Jedi into a smaller and smaller space as they press in on all sides. Shortly before the battle halts several scenes show Jedi being killed, and when Dooku calls for the combat to cease and asks for their surrender, a crane shot emphasises the greatly diminished number of Jedi. This shot is followed by a close-up of Obi-wan kneeling next to a youthful-looking Jedi to check his vitals before rising with the implication that none were found.

The arena battle further emphasises the non-whiteness of the battle droids. Of particular note is the switching of heads between C-3PO and one of the battle droids. Their reactions suggest a different type of mind-body distinction at work with each droid. C-3PO's body is passive, only interfering in the battle droid head's actions via the stiffness of its joints (another white stereotype). The battle droid's body, on the contrary, dominates C-3PO's actions, compelling him to not only fight against the Jedi but also to shout lines like "Die, Jedi dogs!"[69] [70] entirely against his will. The battle droid's body, as is presumed of the bodies of non-white characters, enslaves the spirit that inhabits it.[71]

The battle droids are thus clearly marked as non-white according to Dyer's framework. Their mass production suggests a lack of careful, forward planning in their creation and emphasises their ability to reproduce quickly and thus swamp or 'overwhelm' their less numerous opponents. Further, in contrast to the light, sterile, virgin nature of C-3PO's creation,

the battle droids' creation is marked by darkness, dinginess and rampant sexual imagery. Collectively, once created, they re-enact traditional swamping and overcrowding fears as they outnumber and threaten to destroy the Jedi. Individually, they prove to have minds that are closely tied to or even enslaved by their bodies. This tie appears particularly clearly in the exchange of heads between C-3PO and the battle droid during the arena scene. However, it is also emphasised elsewhere, such as how the droids on Naboo can be shut down by destroying the 'droid control ship'. They do not show the intelligence, ingenuity, or get-up-and-go attitudes of the heroic main droids. Indeed, they have so little initiative that they cannot act at all without the constant stream of orders from the control ship.

Applying Dyer's perspective on whiteness reveals a clear division among the droids in the prequel trilogy. On the one hand, the films reveal droids like R2-D2 and C-3PO as 'white' characters by construction but with nonetheless low hierarchical standing. They are defined by natures (divisions of spirit and body) and modes of (re)production (non-sexual ones, characterised by attention and forethought rather than desire) that appear as 'white' under Dyer's model, although somewhat closer to female whiteness than male, despite their portrayed gender. On the other hand, the battle droids are exceptionally non-white under the same model, being made by exaggeratedly sexualised and mass-produced means, thereby re-enacting 'swamping' fears on a faster time scale. They also experience a much stronger connection between their minds and bodies, as typifies representations of non-whites in Dyer's analysis.

This shows whiteness operating at a level far beyond the obvious in the *Star Wars* films (beyond, specifically, the film being a saga of light-skinned men who struggle tragically or heroically against dark desires — the 'dark' side of the force — while being supported by light-skinned and often white-robed women, who call them back to the 'light'). Furthermore, the battle droids are not the only mass-produced creatures to be displayed. Clone troopers experience similar modes of production, being mass-produced (Lama Su initially tells Obi-Wan that "Two hundred thousand units are ready, with a million more well on their way")[72] for a similar purpose. Their origins are sanitary and better lit, though whether those origins are less 'perverse' is not indicated to the viewer. Sexual imagery is substituted for reproductive imagery, with towers of glass vats containing human embryos provided as a backdrop for some of Obi-wan's conversations with Lama Su, and their origin environment is visually white rather than visually black.

The clone troopers are explicitly defined by their bodies over their spirits. It is by "tampering with the structures" of their DNA that they become "more docile" and "less independent".[73] Thus, they are controlled by their masters more easily due to the nature of their bodies, which might appear as a step upwards from a white racist standpoint. They are whiter than the battle droids but are still fundamentally non-white, and they displace the battle droids as the main re-enactors of swamping fears in episodes three to six. They first overwhelm (more successfully than the battle droids) and nearly exterminate the Jedi and later threaten the same against the rebel alliance. Their whitening is mostly only symbolic, casting their dark bodies in white uniforms, yet even then an inner blackness can be seen around the seams of their attire to further emphasise the theme.

Conclusion

Throughout speculative fiction this same pattern appears among all kind of non-human Others, ranger from elves, zombies and vampires to emergent artificial intelligences and aliens. Although not a perfect division, in general the more mass-produced a creature is, and the more its creation is associated with sexuality, physical desire, or eroticism, particularly sexual 'perversion', the more likely it is to be defined by its bodily form, and thus the more 'non-white' it is likely to be. Conversely, beings that are (re)produced slowly in smaller numbers, with more forward planning and less animalistic desire fuelling their creation, tend to be less defined by their bodies and more by their 'spirit', being 'whiter' by Dyer's model. For example, the typical zombie movie includes mass-produced creatures (zombies) who reproduce via bites (sexual imagery), are defined by their bodies (often referred to as mindless), driven by bodily passion (hunger) and threaten to outnumber and overrun the protagonists. Zombie-like creatures contrast with Tolkien's elves, who are long-lived, reproduce infrequently, are defined by highly spiritual natures and whose courtships offer little to no indication of eroticism.

Although this chapter mainly focuses on *A New Hope* and the prequel trilogy, due to the more interesting evidence available there, the presentation of droids remains consistent throughout the canon films thus far, in sharp contrast to characters such as Chewbacca, whose presentation has been significantly revised in later films. While their social position is less naturalised, droids like BB-8 still fall in line with the presentation of C-3PO and

R2-D2, while the imperial droids of *Rogue One* remain fundamentally in line with the battle droids.[74]

[1] Neil MacMaster. *Racism in Europe, 1870–2000*. Hampshire: Palgrave Macmillan Limited, 2001, p. 2.

[2] Guillermo Rebollo-Gil and Amanda Moras. Defining an 'Anti' Stance: Key Pedagogical Questions about Engaging Anti-Racism in College Classrooms. *Race, Ethnicity, and Education*. Vol. 9, no. 4, 2006: 381. doi: 10.1080/13613320600957702.

[3] Robert Miles. *Racism*. London: Routledge, 1989, p. 3.

[4] John Solomos and Les Back. *Racism and Society*. Basingstoke: Macmillan, 1996, p. 27.

[5] Ghassan Hage. Recalling Anti-Racism. *Ethnic and Racial Studies*. Vol. 39, no. 1, 2016: 125. doi: 10.1080/01419870.2016.1096412.

[6] Jonathan Chew. Star Wars Franchise Worth More Than Harry Potter and James Bond, Combined. *Fortune*. 2015-12-23. http://fortune.com/2015/12/24/star-wars-value-worth/ (accessed 2022-11-18).

[7] Umesh Bhagchandani. Who is the Richest Star Wars Cast Member in 2022? Net Worths, Ranked – From Ewan McGregor and Hayden Christensen Reprising Roles in Disney+'s Obi-Wan Kenobi, to Harrison Ford and Natalie Portman. *Style*. 2022-06-04. https://www.scmp.com/magazines/style/celebrity/article/3180180/who-richest-star-wars-cast-member-2022-net-worths-ranked (accessed 2022-11-18).

[8] *Fortune* in Chew, Star Wars Franchise Worth More Than Harry Potter and James Bond Combined cites a claim by *The Telegraph* in Telegraph Reporters. 'Look at the Size of That Thing!': How Star Wars Makes its Billions. *The Telegraph*. 2016-05-04. https://www.telegraph.co.uk/films/2016/05/04/look-at-the-size-of-that-thing-how-star-wars-makes-its-billions/ (accessed on 2022.11.18), which states that 'No other entertainment franchise - not even James Bond and Harry Potter combined - reaches the estimated total of $42 billion in the Star Wars ledger. (Potter's total revenue from books, movies and toys has been estimated at $25 billion; Bond's estimate is a paltry $8 billion).' For comparison, *Fortune* cites the franchise value of Twilight as around six billion dollars and the Lord of the Rings also around six billion dollars.

[9] Here cited from Richard Dyer. *White: Twentieth Anniversary Edition*. London: Routledge, 2017.

[10] The use of the term, 'non-white,' is inherently problematic, both in the way it generalises a diverse category of people and the way it reinforces a non-existent white/non-white binary. Nonetheless, I find myself faced with the same conundrum as Dyer (in *White: Twentieth Anniversary Edition*, p. 48) in "trying to see the specificity of whiteness" and being forced to address the status of those who are constructed as outside that specification. For much the same reasons as Dyer, compounded by the fact that wookiees and battle droids do not have specific racialised referents among real-world peoples, I must echo his conclusion: "Reluctantly, I am forced back on 'non-white'."

[11] Dyer, *White: Twentieth Anniversary Edition*, p. 278.

[12] Dyer, *White: Twentieth Anniversary Edition*, p. 281.

[13] Dyer, *White: Twentieth Anniversary Edition*, p. 38.

[14] Dyer, *White: Twentieth Anniversary Edition*, p. 40.

[15] Dyer, *White: Twentieth Anniversary Edition*, p. 61.

[16] Dyer, *White: Twentieth Anniversary Edition*, p. 58.

[17] Dyer, *White: Twentieth Anniversary Edition*, p. 43.

[18] Dyer, *White: Twentieth Anniversary Edition*, p. 61.

[19] Dyer, *White: Twentieth Anniversary Edition*, pp. 64–65, emphasis added.

[20] Although in *White: Twentieth Anniversary Edition,* p. 63 Dyer quotes Jenny Sharpe (in *Allegories of Empire: The Figure of Woman in the Colonial Text*. Minneapolis: University of Minnesota Press, 1993), who claims that rape motifs emerge in India only after the 1857 rebellion and were particularly significant in the post-civil war fiction of the USA. He stresses that non-white on white rape is a 'recurrent motif'. He also points out in *White: Twentieth Anniversary Edition*, pp. 64, 216, 251–2 that while concern over inter-racial sexuality was "explicit to the point of psychosis in earlier texts", it nonetheless is 'betrayed' by public responses to some films at least up into the early 90s, and his analysed works contain various examples of the rape motif, such as the attempted rape of a woman by a monstrous gorilla in *Gli Amori di Ercole* from 1960, or the actual (effectively fatal) rape of a white woman by an Indian man in *The Jewel in the Crown* from 1984.

[21] Dyer, *White: Twentieth Anniversary Edition*, p. 63.

[22] Dyer, *White: Twentieth Anniversary Edition*, p. 63.

[23] Dyer, *White: Twentieth Anniversary Edition*, p. 64.

[24] Dyer, *White: Twentieth Anniversary Edition*, p. 66.

[25] Dyer, *White: Twentieth Anniversary Edition*, p. 65.

[26] Marilyn Frye. *The Politics of Reality: Essays in Feminist Theory*. Berkeley: Crossing Press, 1983.

[27] Dyer, *White: Twentieth Anniversary Edition*, p. 66.

[28] Dyer, *White: Twentieth Anniversary Edition*, p. 66.

[29] Dyer, *White: Twentieth Anniversary Edition*, p. 164.

[30] Dyer, *White: Twentieth Anniversary Edition*, pp. 135–136.

[31] Dyer, *White: Twentieth Anniversary Edition*, p. 176.

[32] Dyer, *White: Twentieth Anniversary Edition*, p. 167.

[33] Daniel Bernardi. *Star Trek and History: Race-ing Toward a White Future*. New Brunswick: Rutgers University Press, 1999, p. 12.

[34] Gwyneth Jones. Aliens in the Fourth Dimension. In *Speaking Science Fiction: Dialogues and Interpretations*. Andy Sawyer and David Seed (eds), p. 201. Liverpool: Liverpool University Press, 2000.

[35] Meghan Gilbert-Hickey and Miranda A. Green-Barteet. Introduction. In *Race in Young Adult Speculative Fiction*. Meghan Gilbert-Hickey and Miranda A. Green-Barteet (eds), p. 6. Jackson: University Press of Mississippi, 2021.

[36] Elizabeth Ho. Asian Masculinity, Eurasian Identity, and Whiteness in Cassandra Clare's Infernal Devices Trilogy. In *Race in Young Adult Speculative Fiction*. Meghan Gilbert-Hickey and Miranda A. Green-Barteet (eds), p. 153. Jackson: University Press of Mississippi, 2021.

[37] Patricia Melzer. *Alien Constructions: Science Fiction and Feminist Thought*. Austin: University of Texas Press, 2006, p. 80.

[38] Dan Rubey. Star Wars: Not so Long Ago, Not so Far Away. *Jump Cut: A Review of Contemporary Media*. Vol. 18, 1978: pp. 9–14. https://www.ejumpcut.org/archive/onlinessays/JC18folder/starWars.html (accessed on 2022.11.18).

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[41] Lane Roth. Bergsonian Comedy and the Human Machines in 'Star Wars.' *Film Criticism*. Vol. 4, no. 2, 1979: p. 2. https://search-ebscohost-com.libproxy.tuni.fi/login.aspx?direct=true&AuthType=cookie,ip,uid&db=mlf&AN=2014130075&site=ehost-live&scope=site (accessed 2022.11.18).

[42] Will Brooker. Readings of Racism: Interpretation, Stereotyping and The Phantom Menace. *Continuum*. Vol. 15, no. 1, 2001: p. 15. doi: 10.1080/713657758.

[43] Brooker, Readings of Racism: Interpretation, Stereotyping and The Phantom Menace, p. 15.

[44] Brooker, Readings of Racism: Interpretation, Stereotyping and The Phantom Menace, p. 15.

[45] Andrew Howe. Star Wars in Black and White: Race and Racism in a Galaxy Not So Far Away. In *Sex, Politics, and Religion in Star Wars: An Anthology*. Douglas Brode and Leah Deyneka (eds), p. 12. Lanham: Scarecrow Press, 2012.

[46] Howe. Star Wars in Black and White: Race and Racism in a Galaxy Not So Far Away, p. 18.

[47] For fear of contributing to a common misconception, I must stress that Jar Jar does not actually speak with a Caribbean accent. His speech has no features of Caribbean English, save those it shares with American English. At no point does he perform h-dropping, consonant cluster reduction, GOAT vowels, FACE vowels, zero tense markers/plural markers/indefinite articles, etc. Ahmed Best is, after all, a professional voice actor and capable of producing accents other than the one his ethnic origins might imply.

[48] Roger Kaufman. Homosexual Romance and Self-Realisation in Star Wars. In *Sex, Politics, and Religion in Star Wars*. Douglas Brode and Leah Deyneka (eds), p. 122. Lanham: Scarecrow Press, 2012. Kaufman here cites Roger Kaufman. High Camp in a Galaxy Far Away. *Gay and Lesbian Review Worldwide*. Vol. 9, no. 5, 2002, pp. 33–35. link.gale.com/apps/doc/A90892990/ITOF?u=tampere&sid=bookmark-ITOF&xid=1b9ee9ba (accessed 2022.11.18).

[49] Dyer, *White: Twentieth Anniversary Edition*, p. 87.

[50] Dyer, *White: Twentieth Anniversary Edition*, pp. 86–87.

[51] Dyer, *White: Twentieth Anniversary Edition*, p. 79.

[52] George Lucas (dir.), *Star Wars, Episode IV: A New Hope* (Twentieth Century Fox, 1977).

[53] Lucas (dir.), *Star Wars, Episode IV: A New Hope*.

[54] Lucas (dir.), *Star Wars, Episode IV: A New Hope*.

[55] Lucas (dir.), *Star Wars, Episode IV: A New Hope*.

[56] Note that this offer of replacement *cannot* be mistaken as being for R2-D2's benefit. The focus of the phrasing is on whether Luke requires a different (better) droid, not whether R2-D2 requires maintenance. Further, Luke declines with a show of affection for R2-D2, suggesting that his fondness for R2-D2 leads to the droid's inclusion in the battle. If the focus was on replacing R2 for his own good, Luke's fondness would motivate him differently.

[57] Lucas (dir.), *Star Wars, Episode IV: A New Hope*.

[58] Lucas (dir.), *Star Wars, Episode IV: A New Hope*.

[59] Lucas (dir.), *Star Wars, Episode IV: A New Hope*.

[60] Lucas (dir.), *Star Wars, Episode IV: A New Hope*.

[61] Lucas (dir.), *Star Wars, Episode IV: A New Hope*.

[62] George Lucas (dir.), *Star Wars, Episode III: Revenge of the Sith* (Twentieth Century Fox, 2005).

[63] George Lucas (dir.), *Star Wars, Episode I: The Phantom Menace* (Twentieth Century Fox, 1999).

[64] Many of these devices do not seem to serve any real purpose. Many of the chopping, pounding blades do not actually cut anything, and it is hard to imagine why the molten metal, already carried thus far by pipes, cannot be carried the rest of the way by the same method, rather than shuttled around in large buckets. The sexual imagery may be the only reason for the inclusion of some elements, while others serve the dual purpose of providing obstacles to be overcome by the heroes.

[65] George Lucas (dir.), *Star Wars, Episode II: Attack of the Clones* (Twentieth Century Fox, 2002).

[66] Lucas (dir.), *Star Wars, Episode II: Attack of the Clones*.

[67] If the Freudian implications of this castration were not strong enough, Anakin responds to the loss of his lightsabre by making reference to the individual he has twice in the film thus far referred to as being an approximation of his father, saying, "Obi-wan is gonna kill me!" This association makes arguably more explicit the reading of the act as a form of sexual violence.

[68] Lucas (dir.), *Star Wars, Episode II: Attack of the Clones*.

[69] Lucas (dir.), *Star Wars, Episode II: Attack of the Clones*.

[70] It is worth noting that no other battle droids yell taunts of this nature. The statement seems to only exist to emphasise C-3PO's loss of control.

[71] One might attempt to interpret this scene as indicating that C-3PO's mind or spirit is 'weak' and thus unable to control the battle droid's body, while the battle droid's own spirit is 'strong' and thus controls C-3PO's body more easily, which is the opposite of the reading above. Given the lack of internal conflict portrayed with the battle droid, this reading seems unlikely. C-3PO's body is not shown as being overcome by the battle droid. Rather, it has no influence on the battle droid at all.

[72] Lucas (dir.), *Star Wars, Episode II: Attack of the Clones*.

[73] Lucas (dir.), *Star Wars, Episode II: Attack of the Clones*

[74] BB-8 is light coloured, "one of a kind" (implying individual craftsmanship and "forward planning" in his construction, like R2-D2) and shows considerable initiative and "enterprise" (Dyer p. 58). Imperial droids, such as K-2SO are dark, mass-produced and defined by their programming. Even K-2SO, who has been reprogrammed, has traits ascribed to "side effects of the reprogramming" and presumably helps the rebels at all because of the reprogramming itself. This is a contrast to C-3PO who in *The Return of the Jedi* identifies "impersonating a deity" as being "against his programming" but is able to proceed to do so anyway as the situation demands, in a mechanical-equivalent act of spirit conquering biological (mechanical) nature. It is noteworthy, however, that BB-8 displays much less "stiffness" than R2-D2.

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Speculative fiction opens doors for imagining beyond what is possible, conventional, or acceptable. With its acute ear for the social, the scientific and for political developments and change, speculative fiction makes frequent use of current topics. Reproduction and parenthood are pertinent social questions that are constantly being renegotiated in various arenas. By investigating the representation of families and reproduction in speculative fiction, the research collected in *Populating the Future: Families and Reproduction in Speculative Fiction* not only adds to the field of speculative fiction scholarship, but also contributes to the more general discussion about reproduction and family-making.

Due to its multidisciplinary approach, this book will be of value to scholars and students of various disciplines, such as literature studies, philosophy, ethics, political science, the social sciences and gender studies. It will also be a useful resource in teacher training programmes, as well as to a more general audience interested in speculative literature, politics, society, gender and ethics.