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The Posthuman Body in Monica Byrne's The Actual Star:

Post-dualistic renegotiations of body and identity in feminist speculative fiction

Hilde Andrea Soløst

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Hilde Andrea Soløst

http://www.duo.uio.no/

University of Oslo

Abstract

This thesis explores posthuman re-imaginings of the body in works of feminist speculative fiction. Its main focus is on the representation of the body in Monica Byrne's novel *The* Actual Star (2021). The novel's future society reimagines biological sex, gender and sexuality, as well as different forms of bodily hybridity (with technology, and interspecies hybridity). The thesis rests on a close-reading of the future plotline in Byrne's novel in light of a theoretical framework based on works by important feminist posthumanists such as Donna Haraway, Rosi Braidotti and Francesca Ferrando. It also contrasts and compares Byrne's novel with other works of speculative fiction, particularly Octavia E. Butler's *Lilith's Brood* trilogy. This thesis argues that feminist speculative narratives disrupt discriminatory practices based on identity categories like biological sex, gender and sexuality by renegotiating the notion of difference in post-dualistic ways. Feminist speculative narratives' experimentation with different forms of hybridity is strongly indebted to Haraway's cyborg figuration and its post-dualistic ambitions, and they frequently confuse the border between biology and technology in ways that destabilize binary dualisms like natural/artificial, body/mind, physical/virtual and Self/Other. Yet, exploration of the role of technology often brings with it a confusion of posthuman and transhuman values and interests in these narratives, illustrating the fact that posthumanism implies both a continuity and a discontinuity with humanism. Through their world-building, feminist speculative narratives not only create the future, they also renegotiate what it means to be posthuman. The posthuman that emerges in these narratives is not one, but many, it bases its subject formation on relationality and interconnectedness, and its body is a site of hybrid possibilities and pleasure.

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Introduction

Introduction of the novel and theoretical framework

As humanity is currently nearing a crisis on multiple levels, posthumanism, that grapples with the future status of the human, is emerging as the philosophy of our times. Posthumanism, which can be defined as a post-humanism, a post-anthropocentrism, and a post-dualism (Ferrando 2020, 54), represents a value system and a theoretical framework that, if put into practice, may lead to a more sustainable future. The 21st century human predicament is, to a large degree, a result of our species' tendency to make sense of the world through oppositional binaries, dualisms that form the basis of a hierarchical mindset that has led both to inequality and discrimination among humans and to humans' domination over and subsequent destruction of the non-human life and environments of our planet. Therefore, a post-dualistic mindset is of crucial importance when trying to re-imagine human identity for the future.

My thesis rests on a close-reading of feminist speculative fiction. The emphasis will be on the novel *The Actual Star* by Monica Byrne, which was published in 2021. This novel has three plotlines that are set a thousand years apart and that intertwine in various ways throughout the novel. The first plotline follows the last heirs of a declining Maya dynasty in the area of today's Belize in 1012. The second recounts the experiences of a young protagonist, Leah, who travels to this same area in 2012 to explore her ancestry. The third plotline, which will be given most attention in my thesis, takes place in year 3012 in a future society, called Laviaja, in which a considerably reduced human population has adapted to the climate crisis and re-organized their society according to, arguably, largely posthuman values. In the Laviaja society, identity is constructed in ways that differ from the hegemonic identity-formation practices of the 21st century, and this novel is therefore particularly interesting from a posthuman critical perspective.

When we imagine the future of humanity, the question of the body is unavoidable. Sex, skin colour and bodily abilities are examples of categories that strongly affect how we define ourselves in relation to others and make sense of our place in the world. The question of the body has been, and continue to be, important to feminist theory, and the notion of the body has been experimented with in feminist speculative fiction from the 1960s onwards. Because of their experimentation with bodily categories such as sex/gender, race, ability, genetics, and varieties of hybrid bodies, feminist speculative fictions are important sites of innovative renegotiation of identity. The transformative potential of feminist speculative

fiction lies in its experimentation with not-yet hegemonic ideas, such as potential future notions of the body.

Subsequently, feminist speculative fiction has a significant, and potentially powerful, role in the ongoing process of posthumanization. Through detailed world-building, feminist speculative fictions create visions of the future that might contribute to their manifestation. When this fiction applies posthuman theory and values to its concrete visualization of the future, posthumanism can move beyond its theoretical realm and become realized. Feminist speculative fiction also informs the development of posthumanism. While posthumanism implies a renegotiation of the notion of the human, feminist speculative fiction functions as a contribution to this debate by putting emphasis on the role of the body in this process.

In the following, I will argue that Monica Byrne in *The Actual Star* transgresses dualistic mindsets and binaries through her re-imagining of the body. I will apply a posthuman theoretical framework to my reading of the novel, and show how Byrne's engagement with the body is in conversation with other major works within feminist speculative fiction.

Feminist speculative fiction as a tool of posthumanism

The Actual Star is Monica Byrne's second novel, and her work has not yet received much critical attention. Yet, the novel's elaborate world-building and themes place it solidly within the tradition of feminist speculative fiction. I use speculative fiction as an umbrella term to include genres of non-mimetic literature such as fantasy, science fiction, climate fiction, utopian/dystopian literature, etc. Narratives within speculative fiction have in common that they describe worlds or scenarios that differ from our experienced reality. In many cases, the narratives are results of elaborate world-building, and the reader is presented with complex details of the imagined world. Today's speculative fiction genre grew out of the wave of feminist science fiction in the 1970s, in which authors such as Marge Piercy, Joanna Russ, and Ursula Le Guin utilized the potential of the science fiction genre to express subversive political opinions. Works by these authors have become classics within the feminist speculative fiction genre, and are joined by works by authors such as Octavia E. Butler, Margaret Atwood and Nora K. Jemisin.

Today, works within the speculative fiction genre often reflect posthuman ideas. One can thus argue that speculative fiction has developed to become a tool of posthumanism. The focus on world-building means that these genres historically have been less concerned with the development of complex characters, narrative structures and so-called "literary" language,

which have led to the genres being labelled as inferior, "popular" literature. Yet, world-building is perhaps the very quality that makes these genres the most suitable vessels for innovative philosophical and theoretical exploration (Vint 2017, 366). Today, speculative fictions are starting to receive more attention within academic studies of literature. As Rosi Braidotti points out, literary studies is a "crucial field in retraining readers to think outside anthropocentric and humanistic habits" (Braidotti 2019, 133).

The most explicit manifestation of posthuman thoughts and ideas in speculative fiction often happens through detailed description of how a world is organized, especially its sociopolitical frames. The societies and characters of speculative fiction often challenge the notion of the human, both by re-thinking and re-positioning the human in relation to nonhumans and by deconstructing, and challenging the dualism of, categories that have sustained the hegemonic human subject. The latter involves a re-imagining of categories such as gender, sexuality, disability, and race. However, posthuman literature is characterized by more than its treatment of posthuman themes. The emerging posthuman literary criticism must also emphasize literary devices such as cognitive estrangement, figurations, and the strategic use of language, qualities that are important for posthuman literature to reach its subversive potential. On a more fundamental level, this literature often critiques hegemonic modes of knowledge production. This may manifest in various ways, such as by portraying a plurality of perspectives, influence from indigenous knowledge systems and ancient wisdom, or portrayal of time as different from linear or chronological. The temporal setting of posthuman speculative fiction is also important for its subversive and transgressive political potential. The effects of placing a narrative in the future rather than in the present can be traced in one of the literary precursors of speculative fiction, the literary utopia. While the traditional utopias were static societies set in the present, the politically subversive potential of the genre was not fully reached until the genre metamorphosed into euchronias, utopias projected into the future, in the 1700s (Vieira 2010, 10). The temporal distance between the reader and the better society presented in the narrative pushes the narrative out of the realms of fiction and into the realms of future possibility, and motivates to action. The same can be said when posthuman narratives are set in the future.

Posthumanism's problematization of the body

The body has been a central concern of posthuman thought from its very beginning. In "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" (first published 1985), a text that has been highly influential for the development of

posthumanism, Donna Haraway explores the transgressive potential of the cyborg. This hybrid of machine and organism not only challenges the boundary between the natural and artificial, but also that between the physical and non-physical, and the mind and the body. The centrality of the body in Haraway's cyborg theory cannot be overstated, as the cyborg is suggested as "a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves" (Haraway 1991, 181). The importance of embodiment, which has emerged as one of the central concerns of new materialist understandings of posthumanism in the 21st century, is anticipated in "A Cyborg Manifesto": "The machine is not an *it* to be animated, worshipped, and dominated. The machine is us, our processes, an aspect of our embodiment" (Ibid., 180).

Haraway suggests that high technology and scientific culture of the 1980s are associated with "deepened dualisms of mind and body [and] animal and machine" (Ibid., 154). Her cyborg figuration challenges these and other dualisms that are persistent in Western thought. Over a decade later, the threat of disembodiment is one of the major concerns raised by Katherine Hayles in her pivotal text *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (1999). She worries that the notion of the posthuman subject within cybernetics resembles the humanist subject in its emphasis on the mind, that the posthuman subject *possesses* a body rather than *being* a body (Hayles 1999, 4).

The version of the posthuman that Hayles warned against over two decades ago, has since become realized in the notion of the posthuman in the transhumanist movement. Today, the attitude towards the body is one of the major points of contention between posthumanism and transhumanism. While contemporary posthuman thinkers, such as Rosi Braidotti and Francesca Ferrando, see the body as a site of transgression of dualistic mindsets by emphasizing its complexity, relationality and embeddedness, the transhumanist idea of the posthuman body perpetuates the Cartesian body-mind dualism by stressing the possibility of overcoming the limitations of our biological bodies through the use of reason and technology. Natasha Vita-More's "Primo Posthuman" is an example of an attempt to design such a posthuman body for the future. The creators of bodies like "Primo Posthuman" strive towards ageless, "optimized" bodies, but the apparent neutrality of such bodies, in fact, represents a rebirth of the humanist unitary subject. Moreover, such bodies are unlikely to transgress beyond binary conceptions of identity categories such as sex, gender and sexual orientation. These are thus in sharp contrast to the heterogeneous bodies and subjects that posthumanists endorse.

One of the most important posthuman projects is the rejection of the hegemonic Western subject. This unitary subject; male, white, European, and able-bodied, has formed the basis for hierarchical structures and discrimination based on largely bodily characteristics. Informed by feminist new materialism, contemporary posthumanists renegotiate the status of the body. Bodies go from being inert and devalued sites of discrimination, to being complex entities that are intertwined with, and co-constitute, other bodies and substances (Braidotti 2022, 12). The concept of embodiment entails a rejection of binary oppositions, both of mind/body, human/nature, and Self/Other, and it implicates a redefinition of rigid identity categories based on bodily characteristics, such as sex/gender. The focus on agency and affect also means a change from what the body *is* to what the body can *do*, asserting the "powers, prerogatives and pleasures of the posthuman flesh" (Braidotti 2022, 143).

Thesis overview

Although many works of feminist speculative fiction grapple with the categories of sex, gender and identity, few succeed in constructing future scenarios in which these categories have been successfully renegotiated (Scherr 2023, 3). Renegotiating these categories in meaningful ways, arguably requires the author to employ an integral approach where the organization of the future world is not only imagined and described, but also thoroughly explored through the characters. A renegotiation of these categories within a post-dualistic framework also requires a careful consideration of the *form*, and specifically language, of the fictional work. The potential pitfalls are many, and feminist speculative fictions are often wildly ambitious in the scope of their problematization. Allegedly, Monica Byrne spent nine years researching and writing *The Actual Star* (Thornton 2021), and the result is a complex narrative structure with three different plot threads that each explores a number of different themes within, arguably, a post-dualistic framework. For the purpose of this thesis, I will concentrate my analysis on Byrne's treatment of the body and subject formation in the 3012 plotline.

In *The Actual Star*, Byrne is examining the posthuman body through the categories of biological sex, gender and sexuality, and she is approaching it through different forms of hybridity, predominantly with technology, but also interspecies hybridity. Byrne's modes of engagement with the body guide the chapter structure of my thesis: In the first chapter, I will examine the themes of sex, gender and sexuality in *The Actual Star*. In the second, I will turn my attention to forms of hybridity, especially the relationship between technology and body. I

will further explore the implications of these different forms of engagement with the body for the understanding of difference, the Self/Other dichotomy, and posthuman subject formation.

Chapter 1 – Biological sex, gender and sexuality

Speculative world-building forms the basis for Byrne's renegotiation of the notions of biological sex and gender in her novel. A presentation of the relevant details of the novel's fictional future society in the 3012 plotline is thus necessary for the subsequent discussion. The fictional Laviaja society emerged after the climate crisis, referred to in the novel as the Age of Emergency, and was organized by climate refugees from the late 23rd century onwards (Byrne 2021, 584). The people of Laviaja call themselves viajeras (travellers) because of their nomadic lifestyle. In the 25th century, there was a population bottleneck in which the newly nomadic population risked dying out. Since then, technology has been used routinely to epigenetically modify human foetuses in the womb so that they develop both male and female genitalia. By the time of the narrative, year 3012, omnipresence of genitalia is the norm in the Laviaja society (Ibid., 51;581). Therefore, biologically, all humans are born with the same sex(es). Most people keep both male and female genitalia as given by birth, but any person can freely choose to shrink one set of the genitalia and enhance the other, like the protagonist Niloux's lover Emelle has done (Ibid., 153). Biological sex is thus not a static category, and can be modified at will.

There are four categories of gender identity in Laviaja, called norte, sur, este and oeste. These correspond to contemporary society's woman, man, agender, and nonbinary, respectively (Byrne 2021, 581). Significantly, children are not assigned a gender at birth, but decide which category they identify with when they want to (usually between the ages of three and eight). Thus, importantly, gender identity is self-determined. The omnipresence of genitalia means that biological sex is not categorized in a binary manner (either male or female). The default is one, combined, biological sex. Consequently, the foundation for a binary gender system is uprooted, and identification with any of the four gender categories can happen independently of sex. This does not, however, mean that it does happen independently of sex.

Although the link between biological sex and gender identity in theory is deconstructed in Laviaja, the notion of norte (woman) is still more strongly associated with female genitalia, and that of sur (man) with male, as the following quote reveals: "Emelle [...] felt so strongly norte that she shrank her penis and amplified the rest" (Byrne 2021, 153). Thus, gender identity is still loosely connected to biological sex, albeit in a non-rigid and fluid manner. The fact that gender is self-determined and not assigned based on biological sex, and that there are no privileges, assumptions, expectations, or value differences associated with

biological sex or gender identity, arguably makes the association between the two less problematic than in real society.

In this chapter, I will discuss how works of feminist speculative fiction approach biological sex and gender in relation to the concept of difference, and how a renegotiation of difference may serve feminist and posthuman interests. I hope to show how Byrne's *The Actual Star* fits into the larger body of feminist speculative fiction. I will also discuss the importance of pronouns in the reader's conceptualization of sex and gender, and the resulting transgressive potential of pronouns in feminist speculative fiction. I will then show how *The Actual Star* reflects contemporary feminist and posthuman ideas of sexuality. Towards the end of the chapter, I will return to the concept of difference, this time in relation to how feminist speculative fiction transgresses the Self/Other dichotomy, deals with the problem of othering, and imagines post-dualistic identity-formation practices.

Erasure versus renegotiation of difference in feminist speculative fiction

Feminist speculative narratives engage with difference in biological sex and gender in various ways. In some of these narratives, binary sex difference is maintained, but combined with empowering of the female sex, like in Naomi Alderman's The Power (2016). Many works of feminist speculative fiction pose eradication of difference as a solution to the problem of sex and gender: "Discrimination and oppression based on difference is resolved [...] in many speculative fictional futures through the erasure of difference altogether" (Schalk 2018, 123). Single-gendered worlds are a common strategy for such elimination of sexual difference in feminist speculative fiction. These narratives either feature intentional women-only societies, like in Sarah Perkins Gilman's Herland (1915), or accidental women-only societies in which men are extinct because of gender-specific plagues, like the Whileaway society in Joanna Russ's The Female Man (1975) or Christina Sweeney-Baird's The end of men (2021). Difference is also, for all practical purposes, erased in Ursula Le Guin's classic *The Left Hand* of Darkness (1969), where an androgynous population exhibits no sexual difference for the majority of the time. When sexual differentiation occurs, it is arbitrary who becomes male and who female, and the differentiation is limited to a short time of sexual reproduction. The result is a society in which the *social* implications of sex and gender are, to a large degree, erased.

Although a society where no difference is the standard, at first, may seem like a good solution to the problem of discrimination based on biological sex, this is problematic from a post-dualistic, posthuman perspective. This is due to the fact that in a society where no

difference is the norm, the presence of one unitary standard subject is likely to cause less tolerance for deviation from this standard. And since no-difference societies are, for various reasons, unrealistic and unattainable, such societies will never move beyond the fictional realm, but remain thought experiments with limited transgressive potential. Arguably, to create future societies in which sex, gender and other identity categories are reimagined in meaningful ways, difference must be renegotiated rather than eliminated. From a feminist perspective, such renegotiation is an opportunity to liberate the woman from the shackles of phallogocentrism. "Woman" has traditionally been and continue to be associated with the inferior of a number of hierarchized binary oppositions (Cixous 1999, 264). Difference inscribed as *negative* difference forms the foundation not only for the notion of woman as "Other" (Beauvoir [1949] 2011), but also for the discriminatory practices against groups of humans and non-humans that have been othered in relation to the hegemonic humanistic subject. Feminists have long argued for the need for a renegotiation of difference outside of the "binary conception of opposition" (Sargisson 1996, 72). They are joined by posthumanists who see the necessity of renegotiation of difference to attain a post-dualistic and posthumanistic mindset.

Feminist speculative fictions experiment with renegotiation of difference in post-dualistic ways through scenarios and worlds that eliminate *binary* difference without eliminating difference altogether. Such solutions are often based on turning binary oppositional difference into a multitude of difference. Although the omnipresence of genitalia in *The Actual Star* may, at first glance, seem like a way of eradicating sexual difference altogether since all the people of Laviaja are born with the same genitals, the possibility of individual modification of genital size makes this a matter of degree and difference on a continuum rather than binary difference. Rosi Braidotti argues for understanding the human on a human-non human continuum (Braidotti 2017, 26). *The Actual Star* shows how such a mode of thinking can be transferred to the sex and gender categories. Although the continuum stretches between two binary poles (female and male) and is restricted to the one plane formed by this binary, the continuum mindset can offer a first step towards a post-dualistic understanding of the categories of sex and gender.

The continuum of sexual difference in *The Actual Star* can be understood as a variation over the multi-sex or multi-gendered worlds that often feature in feminist speculative fiction. The exploration of multiple different sexes and/or genders in such narratives arguably often reflects the post-dualistic, posthuman ambition that differences should be understood outside of the binary mindset, and that they should be emphasized rather

than erased. Yet, the mere existence of more than two sexes/genders is not enough to overcome binary thinking. Octavia Butler's famous Lilith's Brood trilogy (Dawn, Adulthood Rites and Imago, first published 1987-1989) is an example of speculative fiction that, despite incorporating a third, neutral sex, does not overcome binary thinking in relation to sex and gender. These novels successfully challenge racial categories and the humanistic hegemonic subject. Their treatment of hybridity also implicates a renegotiation of difference that challenges the Self/Other dichotomy, which will be further discussed later in this thesis. Despite reflecting post-humanistic and post-dualistic values in respect to their treatment of race and human/non-human hybridity, these novels are surprisingly conservative in their treatment of sex and gender. As critics point out, both the protagonist and other important characters comply with essentialized views on biological sex and stereotypical gender roles (Jesser 2002, 41-2). The protagonist, Lilith, and other female characters continuously act in self-sacrificing and altruistic manners to protect their offspring, while male characters usually are portrayed as violent. The characters are thus portrayed as trapped and governed by their genetics and sexed bodies, which often make them act against their better judgment. Examples of this biological determinism is Paul Titus' sudden attempt to rape Lilith (Butler 2022a, 106) and Tate's inability to make independent choices for herself. Significantly, when Lilith first meets a representative of the alien Oankalis at the beginning of *Dawn*, her first reaction after seeing the alien body is to ask if it's male of female (Butler 2022a, 12). Only after he has confirmed that he is male, that he fits into this familiar identity category, can Lilith relax around him. This curious incidence foreshadows the continued importance of the binary sex and gender categories that are sustained throughout the trilogy. Arguably, the fact that the Oankalis require the help of a third, neuter gendered individual to reproduce does nothing to dissolve or even slightly disturb the male/female binary dynamic that continues to inform social practices.

Another, much more recent novel that experiments with multiple sexes/genders, is Kim Stanley Robinson's 2312 (2012). This novel features not only three, but a wide variety of sexes/genders in a future scenario, and like *The Actual Star*, there is no apparent discrimination based on these categories. The novel arguably also successfully avoids essentialized and stereotypical representations of sex and gender. Yet, like in *The Actual Star*, the narrative is not entirely successful in transgressing the binary *discourse*. One of the sexes in 2312 is a combined sex where people have both sets of genitals, much like in *The Actual Star*. And just like the character Emelle illustrates that the connection between sex and gender is only partly deconstructed in *The Actual Star*, the character Swan in 2312, whose vagina is

the larger genital, becomes by default a "she" and the character Wahram, whose penis is the larger genital, becomes a "he" (Robinson 2012, 424). Both novels illustrate how easily even new imaginary gender categories fall into the traps of binary discourse, and hence the difficulty of creating a true post-dualistic vision.

Language as a tool to transgress binaries in feminist speculative fiction

Although language often poses a limitation on feminist speculative fiction's attempt at transgressing binaries, there are also instances in which language is successfully used in subversive ways. In *The Actual Star*, when the protagonist Niloux takes a bath, she "winced as the water touched her scrotum, then submerged up past her breasts" (Byrne 2021, 150). A couple of pages later, we can read that "[s]he was conscious of her body; her nipples wrinkled in the air even as her cock was soft from the heat" (Ibid., 152). Arguably, the function of this scene is to create a sense of cognitive estrangement in the reader, by juxtaposing the male genitalia to the female genitalia in the same person, and by juxtaposing them to the female pronoun. Whereas the former challenges our notion of what constitutes normal human anatomy, the latter challenges the rigid bond between biological sex and gender identity. The strange sensation that the 2023 reader experiences when encountering the phrases "her scrotum" and "her cock" is in the same category as what readers must have experienced when they read "The king was pregnant" over fifty years earlier in Ursula Le Guin's classic *The* Left Hand of Darkness (Le Guin [1969] 2018, 99), and when they are confronted with the term "wombmen" in Robinson's 2312 (Robinson 2012, 431). Le Guin was one of the earliest writers of speculative fiction who experimented with gender, albeit not in a future scenario with humans on Earth, like Byrne does in *The Actual Star*. Yet, the fact that this one sentence remains iconic half a century after the novel's publication speaks to the impact of cognitive estrangement.

Introduction of neologisms is one of the formal devices that characterize speculative fictions. Neologisms are the most concentrated form of what, in science fiction theory, is termed "novum". An important part of the process of reading science (and speculative) fiction, is to recognize pieces of information that are "not real; but [also] not-unlike-real" (Shippey 2016, 10). Cognitive estrangement refers to the process of recognizing and making sense of such novums (Ibid., 13). The novum works by filling a gap in language, but also, importantly, by "betraying the existence of the gap" (Ibid., 16). Innovative pronouns are examples of novums that can make us aware of assumptions and values that are concealed by our linguistic habits (Ibid.). In posthuman narratives, pronoun neologisms arguably also

facilitate surpassing the linguistic limitations to post-dualistic thought relative to the categories of sex and gender. Language directs our thoughts, and linguistic changes and neologisms can thus expand our imagination. It matters what words we build worlds with in speculative fiction, or in the words of Donna Haraway, it "matters what matters we use to think other matters with; [...] what thoughts think thoughts, what descriptions describe descriptions" (Haraway 2016, 12).

Works of speculative fiction frequently experiment with pronouns in new and unexpected ways. The future narrative in *The Actual Star* experiments with two different systems of pronoun use. Most of the population uses "she/her/hers" to refer to everyone, regardless of sex and gender. Arguably, the use of this pronoun makes the reader attribute femininity to these characters and influences how we imagine their bodies. There is, however, a small subpopulation in Laviaja, called sedentix, that oppose some of the changes that the rest of society embrace. These people use the non-gendered third person pronouns ihn/ahn (Byrne 2021, 339). The use of gendered versus non-gendered third person pronouns arguably has a great effect on how readers visualize the characters and what assumptions they make to fill in gaps left out by the text. From a post-dualistic theoretical perspective, in a society that seeks to make sex and gender non-binary categories, the use of non-gendered pronouns makes sense as it escapes unnecessary binary categorization and motivates the reader to visualize identity outside of the binary sex and gender discourse.

In Byrne's novel, the sedentix who use non-gendered pronouns retain the lifestyle and customs of previous generations. Their use of non-gendered pronouns indicates that this was once customary. While Byrne's choice of making the female pronoun universal in her 3012 fictional society can be seen as a feminist statement, from a posthuman perspective it may also signal the rise of a new hegemonic, unitary subject, this time female rather than male because it not only decentres the male subject, but centres the female. This is, of course, complicated by the fact that the male/female binary sexual difference is partly deconstructed. Yet, had Byrne instead experimented with a variety of pronouns to reflect and emphasize the multitude and degrees of difference, this aspect of the novel would have been more successful from a post-dualistic, posthuman perspective.

The Mirror Empire (2014) by Kameron Hurley is an example of such a work of speculative fiction that successfully uses both gendered and non-gendered pronouns to reflect a society in which gender fluidity is the norm. The characters choose whether they want to use the gendered pronouns she/her or he/his, or the non-gendered pronoun ze/hir. Some of the characters frequently change their pronouns. The pronouns reflect the attitude towards

difference. Rather than erasing gender difference by opting for one non-gendered pronoun, the dynamic pronoun use in Hurley's novel arguably makes the reader constantly aware of the characters' experience of gender, thus embracing (gender) differences rather than erasing them.

The androgyne in *The Actual Star* and other works of feminist speculative fiction. In much the same way as the universal use of the female pronoun makes the reader likely to, at least subconsciously, read the characters of *The Actual Star* as women, the reader of Le Guin's *The Left Hand of Darkness* is likely to think of the gethenians as men or masculine because the human visitor assigns the pronoun "he" to the members of its non-gendered, androgynous population. Although the imaginary world in Le Guin's classic to a large degree is successful in its erasure of sex/gender-based discriminatory practices, and Le Guin herself announced her post-dualistic intentions in an article about the book (Le Guin 1989, 16), critics disagree on whether her portrayal of androgyny is successful from a feminist point of view. The pronoun use is part of the explanation. Also, in the majority of the narrative, the reader sees the androgynes through the eyes of Genly Ai, who confesses that he is unable to think of them outside the masculine/feminine discourse:

"Though I had been nearly two years on Winter I was still far from being able to see the people of the planet through their own eyes. I tried to, but my efforts took the form of self-consciously seeing a Gethenian first as a man, then as a woman, forcing him into those categories so irrelevant to his nature and so essential to my own" (Le Guin [1969] 2018, 11-12).

Critics argue that *The Left Hand of Darkness* does not utilize its full speculative potential to explore androgyny (Fayad 1997, 63). The notion of the androgyne, if explored properly, could not only neutralize "the gendered way in which the subject is constructed" (Ibid., 59), but also arguably represent a posthuman gender identity that integrates both the feminine and the masculine in one person, one that by "[a]dmitting the component of the other sex" (Cixous 1999, 269) helps explode the problematic binary oppositions. For this to be explored, speculative fictional narratives would need to construct complex characters that integrate (what is considered) feminine and masculine traits in convincing ways. One may argue that Byrne does this in *The Actual Star*. The characters of the Laviaja society are biologically androgynous. Also, Byrne successfully avoids stereotypical representations of masculinity and femininity in her characters. Yet, I would argue that her effort is partly undermined by her choice to make "she" a universal pronoun. It would, indeed, have been interesting to see how

the reader's perception of the characters had differed had this pronoun been replaced by a non-gendered one. Moreover, while *The Actual Star* explodes the binary structure of the gender category by adding agender and non-binary as accepted identifications, the novel arguably fails to explore the significance of gender. If gender becomes self-determined and independent of biological sex in the future, what will it mean to identify as a woman, man, agender or non-binary? None of the characters in the novel discuss or reflect on their gender identity. In the posthuman society of Laviaja, the significations of gender needs to be better explored for the category not to be redundant. The reader thus wonders if the post-dualistic and feminist vision of the novel had been stronger had it been envisioned as a post-gender world.

Textual gaps and the reader's visualization in speculative fiction

So far, I have outlined the various ways that Byrne's *The Actual Star* attempts to deconstruct the rigid binary discourses of biological sex and gender. The novel poses a technological solution to the biological side of the problem of binary sexual difference, presenting a scenario in which such technological mediation was necessary for the survival of the human society. The necessary social changes that such a future society implies include fundamental changes in how we think of biological sex and gender identity, but also significant political changes. Yet, the novel only gives a snapshot of human society at three times in history, each set a thousand years apart. The process of change, politically and socially, from our society to that in 3012 is only hinted at, and the novel evades the practicalities of such a change.

While the protagonist Niloux contemplates the status of her society; "We live in a world where identity is self-determined and sacred, after thousands of years of people dying for that right" (Byrne 2021, 154), the reader is left wondering exactly how such a transition happened. On the one hand, the novel can be accused of circumventing the real challenge. After all, imagining a better future is not the most difficult part; how to achieve it is. On the other hand, by leaving this part open, the author stimulates thinking on the part of the reader. If the author had offered a concrete solution, the reader may have been less likely to imagine her own solutions. This could be a strategy on the part of the author, who by withholding information invites the reader to contribute by filling in the gaps. Literary theorist Wolfgang Iser argues for the reading process as a creative process in which the reader takes part in creating meaning by filling in the voids of the text (Iser 1972, 285). This theory could arguably be extended to include the filling out of larger gaps, such as imagining how a future like that in *The Actual Star* can be attained. Inducing the reader's imagination is arguably a

crucial part of speculative fiction's political potential since visualization is crucial to create a future that is different from the present.

Non-human reproductive systems in feminist speculative fiction

Omnipresence of genitalia in *The Actual Star* also places this novel within the trend of queering the non-human and the posthuman. Various works of speculative fiction experiment with sexual reproduction and diversity systems borrowed from other life forms (Braidotti 2022, 160-1). The omnipresence of genitalia described in *The Actual Star* is a case of simultaneous hermaphroditism, which is the predominant sexual differentiation in plants. The androgynous gethenians in Le Guin's The Left Hand of Darkness exhibit sequential hermaphroditism, which is common in many fish and snail species. In the case of Sarah Perkins Gilman's *Herland*, a women-only utopia is presented in which reproduction occurs through the process of parthenogenesis. In this case, the connection to non-humans is made explicit: "Well – there are some rather high forms of insect life in which it occurs. Parthenogenesis, we call it – that means virgin birth" (Gilman [1915] 1998, 39). The implications of experimenting with alternative forms of reproduction in feminist speculative fiction are many. From a feminist and queer standpoint, it is arguably a way to challenge the hegemonic mode of monogamous heterosexuality that, combined with the nuclear family unit, sustains a social dynamic in which many women remain dependent on, and inferior to, men. Such experimentation arguably also puts the sexual reproduction of humans into perspective by emphasizing that it is one of many forms of reproduction in nature. In this respect, it is post-anthropocentric. It also questions the culture/nature and human/non-human dualisms and blurs the line between natural and unnatural sexual behaviour (Braidotti 2022, 201-2). For posthuman feminists, it is also an important point to discuss sexuality outside of "the social codes that entrap it in binary oppositions, compulsory heterosexuality and reproductive sex" (Ibid., 190). In line with this, the following discussion will focus on non-reproductive sexuality.

Representations of sexuality in *The Actual Star*

In *The Actual Star*, sexual inclination (preféra) is one of the three categories that together constitute personal identity. The categories are based on whether a person during sex prefers to "take" (grip) or "give" (penetrate), or both, or neither (Byrne 2021, 588). Viajeras thus don't categorize sexuality based on attraction to (a) particular sex(es)/gender(s), but rather based on which acts give them most pleasure during sex. While the preféra category undoubtedly is an attempt to imagine a future in which sexuality is liberated from the shackles

of the sex/gender binary, from a posthuman perspective, this is only partly successful. There are only four categories of sexual preference in Laviaja, and they imply normative modes of sex. As the sex scene between Niloux and Emelle shows, despite the omnipresence of genitalia, being an endotánte (preferring to give/penetrate) still translates to using one's penis for (vaginal) intercourse: "I'm an endotánte. If you like, could you please lie on your stomach" (Byrne 2021, 154). Thus, when read in a posthuman critical light, *The Actual Star* does not quite meet the standards of a posthuman feminist notion of sexuality, in which "embodied subjects are sexed in a multiplicity of ways" (Braidotti 2022, 177) and "there is just no knowing what posthuman desiring bodies can do" (Ibid., 178). Arguably, the categories of sexuality in the novel are not so different from the ones in our society. They are still inscribed on *one* scale, which ranges from endotante (preferring to give/penetrate) to envolvante (preferring to take/grip). Because the preféra really only reflects which set of genitalia (male or female, respectively) that a person prefers to use during intercourse, *The Actual Star*'s portrayal of sexuality thus remains within, rather than transgress beyond, the *discourse* of the sex/gender system.

Despite this, *The Actual Star* portrays sexuality in other radical and transformative ways. In Laviaja, the people are nomadic and form temporary groups with others. Sex is one of the ways of connecting to others and is not contained within the frame of heterosexual monogamy. Viajeras may connect sexually to any number of others, and their networked brain extensions can provide information on the sexual preferences (preféra) of viajeras they meet, easing the process of finding a sexual partner. Sexuality in general is devoid of shame, and promiscuity is not frowned upon, as is evident from the way that the characters think and talk about sex: "She felt thankful for every [...] part of her that was sore from the night of sex, sometimes giving and sometimes receiving, all of it delicious" (Byrne 2021, 201), and "She had an instinct for touch ... as if she knew how your body was feeling as much as she felt her own [...] I slept all the next day, but she just went on to the next" (Byrne 2021, 149). Despite the discussed limitations of the preféra category, one of its strengths, from a posthuman, feminist perspective, is its inherent focus on pleasure. This is in line with Braidotti's perspective on bodies as "relational desiring machines" that are "[f]undamentally prone to pleasure" (Braidotti 2022, 177). The playful and liberated sexual practice in Laviaja suggests how we may rethink sexuality without genders, embracing the "perverse" in the Freudian sense of the playful and non-reproductive faculties of sexuality (Braidotti 2013, 98).

The protagonist in the 2012 plot, Leah, who becomes a founding figure of the Laviaja society, and whose life attains a mythical or religious status in this future society, also

expresses attitudes that challenge the traditional notion of sexuality, and thus heralds what sexuality might look like in the future. Leah approaches sex as a way to experiment with different modes of pleasure, and ignores normative standards for female heterosexual behaviour in actively seeking out oral, anal and masturbatory sex. Also interesting for a new materialist, posthuman reading of the novel, is her experiences with heightened bodily sensitivity that are connected to her interactions with the natural surroundings. For instance, when she immerses herself in the waters of a cave, "Leah felt cool and wet and powerful. The pressure in her bladder was making her horny. She liked how her green sneakers sloshed and dragged in the water [...] The cave water coursed over her legs. It felt like one long sensuous baptism" (Byrne 2021, 253). Leah's bodily and sexual sensations emerge as elemental forces that transgress her body in their inextricability with place and environment and thus reflect a new materialist understanding of sexuality as "a human and non-human force always at work through [...] multiple organic and inorganic ecologies – hormonal, environmental, psychic and social" (Braidotti 2022, 188). Albeit very different from traditional Western attitudes to sexuality, this new materialist understanding of sexuality has much in common with indigenous philosophies, which "tend to have a more cosmic understanding of sexuality and the body" and emphasize "positive relationships between human and non-human persons, including land and water" (Ibid., 186). Indigenous epistemologies have received much attention from posthuman scholars because of their pre-dualistic worldview and perspectivism. The indigenous perspectives explored in the 1012 plotline of *The Actual Star* are highly relevant to a posthuman reading of the novel, but fall outside the specific focus of this thesis.

The Actual Star not only presents sexuality as an elemental life force in line with new materialist thinking. It also directly criticizes how Western philosophies present the female body and sexuality. In Christianity, which has influenced Western philosophy for the past 2000 years, the body represents the vessel for sin (Rom. 8:1-39). It was Eve who first ate from the tree of knowledge and led Adam to do the same (Gen. 3:6), and the female body has thus come to represent sin (Ferrando 2014, 217). "In Western traditions, but not only, the symbolic body [of the mind-body dualism] was female and had two simplified variables of representation: the primordial body (the mother), and the sexual body (the prostitute)" (Ibid.). The portrayal of female sexuality in *The Actual Star*, as outlined above, inverts the symbolism of the female body from that of sin and shamed sexuality to a celebration of its (sexual) possibilities. It explodes the mother-whore binary attitude to the female body, and the erotic instead emerges as an "assertion of the lifeforce of women" (Lorde [1984] 2007, 55).

Identity-formation and the Self-Other dichotomy

In the future society in *The Actual Star*, the personal identity (concórdia) of any person is constituted by three identity categories. I have already discussed the first two, gender identity (genéra) and sexual orientation (preféra). The last one, manéra, is a complex personality category that can reflect a number of different characteristics such as regional, mythical, or religious affinity, and personal interests. In the Laviaja society there are 1289 different declared manéras. Diversity of manéras is encouraged through legislature that prevents any manéra group from exceeding 5% of the population. Adoption of a new manéra involves taking tutorials to attain knowledge of this particular manéra, and the transition is celebrated with a "Fiesta de Manéra" (Byrne 2021, 585). Significantly, manéra is not a closed category; viajeras can create new manéras, which means that no one needs to adjust to an identity category that they don't feel comfortable with. Through these measures, the coexistence of a multitude of identity formations is encouraged and celebrated in Laviaja. In this respect, the world-building in *The Actual Star* successfully renegotiates difference, and the multitude of manéras in Laviaja supplants the toxic binary structure of traditional identity categories. According to Francesca Ferrando, such an embrace of differences within the human species is crucial to the posthuman attitude (Ferrando 2020, 187) and pluralism, "with its emphasis on the respectful co-existence of different perspectives, individuals, groups, and systems" is at the core of her understanding of posthumanism (Ibid., 151). A dynamic, open and selfdetermined identity category like manéra in *The Actual Star* arguably exemplifies how humans can construct identity in the future in ways that escape dualistic and rigid identityformation practices.

We have seen how *The Actual Star* deconstructs dichotomy-based views of biological sex and gender identity and suggests alternative modes of identity-formation. These suggested modes of identity formation are dynamic and self-determined, and they transgress dichotomies such as male/female and man/woman, and therefore qualify as post-dualistic (Ferrando 2020, 189). Moreover, the novel's treatment of the subject is post-humanistic in its decentering of humanism's universal and generalized subject, the white, Euro-centric male. As we have seen, the male is decentered by the omnipresence of genitalia on one level, and by the pronoun use, on another. Because the population is nomadic and celebrates the perspective of a variety of ethnicities through diversity of manéras, there is also no geographical power centre associated with a privileged population or ethnicity. Therefore, while humanism's universal subject is decentred, there is, importantly, no other hegemonic subject that takes its place.

In the dualistic mindset, the Other stands in binary opposition to this hegemonic subject, but also to the notion of the Self. Simone de Beauvoir and other feminist thinkers point at how the woman as "the Other" functions as a necessary structural element that secures the constitution of the male subject (Beauvoir [1949] 2011, 81). In much the same way, an Other may be needed, according to a dualistic mindset, to secure the constitution of the Self. In a humanistic, dualistic mindset, the notions of Self and Other are mutually dependent on both the existence and exclusion of the other. The strict binary oppositional nature of their dynamic is key. The Self/Other dichotomy may thus be challenged by destabilizing either component of the binary, or by blurring the boundaries between them.

It is an important task for posthumanism not only to decentre the hegemonic subject, but also to criticize and prevent the construction of symbolic Others (Ferrando 2020, 55;60). Works of feminist speculative fiction explore identity formation practices that transgress the Self/Other binary in a number of different ways. In Butler's Lilith's Brood trilogy, humans face radical otherness in the form of an alien species. In these novels, otherness assumes the form of differences of bodily appearance and abilities, as well as mindsets and perspectives. The first aspect worth looking at, is the humans' reactions to the alien bodies. When the protagonist Lilith first looks at the Oankali's body, she automatically interprets its appearance within the framework of the human/non-human opposition. First, she sees "the shadowy figure of a man, thin and long-haired" (Butler 2022a, 10). Even when he introduces himself as "not a human being", she continues to interpret his appearance in terms of human features. When the hair turns out to be sensory organs, Lilith "backed away, scrambled around the bed and to the far wall [...] Medusa. Some of the "hair" writhed independently, a nest of snakes startled" (Ibid., 12-13). Her perception of him changes from "like Self" to "unlike Self", and the differences are soon categorized in terms of familiar othered categories, that of "lower" animals (reptiles, invertebrates) and mythical monsters (Medusa). Lilith's reactions reflect the humanistic habit of inscribing differences as negative, a mindset that historically has sustained binary hierarchical structures and created categories of both non-human and human Others.

Critics have commented that Butler's novels relate the idea that creating Others is a universal human need (Zaki 1990, 241). I would argue that while the novel, indeed, presents this as a universal human trait, it also critiques this trait by problematizing it and suggesting ways out of this predicament. In *Adulthood Rites*, we can read that "[h]uman beings fear difference [...] Humans persecute their different ones, yet they need them to give themselves definition and status" (Butler 2022b, 88). Butler here overtly critiques the humanistic, hegemonic subject that needs the notion of Others to sustain itself. The alien Oankali's

perspective on difference is in sharp opposition to humans': "Oankali crave difference [...] Oankali seek difference and collect it. They need it to keep themselves from stagnation and overspecialization" (Ibid.). Indeed, in order to survive as species, the Oankali constantly seek out new species to intermix with, which ensures both the continued spread and evolution of their species. In contrast to humans, they have a non-purist view of their own species, a perspective that favours relationality and interdependence. In the trilogy, the hybridity with the Oankali is, to a large degree, forced upon humans in a scenario where the aliens saved a few survivors from a devastating nuclear war on Earth, presented as a consequence of the human tendency to hierarchize. Butler's vision is undeniably dystopic as she questions humans' capacity for change without radical intervention and genetic alteration of our species through human/alien hybridity. Yet, the interspecies alliance may be a metaphor for the radical nature of the change Butler sees necessary. The nature of that alliance also indicates the necessary changes: A renegotiation of difference and the notion of the human, a postanthropocentric attitude, and an acknowledgment and validation of interdependence and relationality. One can thus argue that Butler's *Lilith's Brood* trilogy can be read as parables just as much as the novels in her Parable series.

In the Lilith's Brood trilogy, the human/alien hybrids may also be seen as bodily manifestations of the process of incorporating Other into the Self. This is one of the ways in which the Self/Other dichotomy may be challenged. Byrne's *The Actual Star* also experiments with such incorporation in a number of different ways, albeit often more on an abstract and symbolic level than in Butler's work. First, Byrne strategically uses elements of worldbuilding to challenge the Self/Other dichotomy. The way that society is organized encourages individuals to maintain a plurality of perspectives: The population of Laviaja has been nomadic for centuries, erasing privileges based on nationality and ethnicity. The identity categories that do exist are all dynamic and based on continuums or a large range of options rather than binary oppositions. As previously discussed, all viajeras are male and female although they can alter the size of their genitalia to be more of the one and less of the other. Similarly, the fact that a viajera is likely to change her manéra at average three times during her lifetime will give her experience with different perspectives. Incorporation of perspectives is also encouraged in Laviaja by the use of a technique called braiding, in which any person, by the use of technology, can pose a question and access others' perspectives before arriving at a solution by braiding one's own perspective with that of others (Byrne 2021, 579). These are some of the ways that the identity formation in Laviaja fights the symbolic notion of the Other by incorporating it into the Self.

The Self/Other dualism is also challenged by the narrative structure of the novel, in which the protagonists of the 1012 Maya society, the 2012 society, and the 3012 Laviaja society merge to become one, deconstructing the linearity of time. This brings Joanna Russ's *The Female Man* to mind. In this novel, there are five protagonists, all presenting their narratives in first person singular and living in different worlds, until towards the end, it becomes evident that they are in fact the very same person materialized in different worlds (Russ [1975] 2022, 206). In *The Actual Star*, a similar narrative structure attains a metaphorical quality. Through the convergence of the plotlines and the erasure of the borders between characters, the narrative structure comes to signify the reconfiguration of subjectivity and the notion of Self. Despite apparent individuality, it becomes evident towards the end of the novel that the characters co-constitute one another. Time is dissolved as the paths of the characters from the three different plotlines intersect in a sacred cave. The three plotlines are no longer distinct, and within one paragraph, the focalization seamlessly shifts from one protagonist to another. In the following dramatic scene, Tanaaj participates in and takes over Javier's experience the moment he dies:

"[Javier] saw a solid rock wall ahead, but then a wall of water surged from under it and lifted him off his feet and slammed him against the ceiling and just like that, his life was extinguished. This, Tanaaj did not want to live through again. She did not want to drown again. She was always the sacrifice, always the martyr, in every age" (Byrne 2021, 549).

A similar signification results from the use of twin characters in the novel. The protagonists of the future society, Tanaaj and Niloux, whose disagreement over the future of their society results in a personal confrontation and attempts at exclusion and othering, are symbolically united as twins. The novel's narrative structure and use of twin characters arguably both symbolically dissolve the Self/Other dichotomy and imply an understanding of the Self that includes rather than excludes the Other.

By erasing the borders between the different temporal plotlines and characters, *The Actual Star* also participates in the discussion on matter, which is important in posthumanism. "What if the matter that constitutes "you" is constituting "others" in different dimensions?", Ferrando asks (Ferrando 2020, 178). *The Actual Star* experiments with the implications of this for the Self/Other dichotomy. The notion of Self is further challenged by the blurring of the Self/Other boundary through the creation of relational networks aided by technology. The

notions of Self and Other are thus integrated in ways that privilege relationality over individuality. This will be further explored in the second chapter of my thesis.

I have argued that Byrne challenges the Self/Other dichotomy in a number of different ways. This is most evident in elements of her world-building, particularly in Laviaja's identity categories and the braiding techniques that encourage individuals to explore multiple perspectives. The Self/Other binary is also challenged by the novel's narrative structure that merges the protagonists and dissolves the temporal dimension towards the end of the narrative. Yet, the central conflict driving the 3012 plotline arguably counteracts this by upholding the Self/Other binary and presenting othering as an emerging problem in the Laviaja society. The conflict in question revolves around the increasing tension between two fractions of society, represented by the protagonists Tanaaj and Niloux, respectively. The conflict is the result of disagreement over the spiritual foundation of the Laviaja society, especially the existence of an afterlife or parallel dimension. These questions have implications for the way of life and future of the Laviaja society. At the time of the narrative, the disagreement results in increasing intolerance, alienation, tension and violence. Differences of opinion have resulted in distinct populations, and Niloux reflects on how easy it would be "to slip back into the rhythms of mine and yours, us and them, territory and bloodshed" (Byrne 2021, 405). In the following paragraph, a child overhearing adults discuss the fractions of society has asked why being different is bad:

"Different kinds of people are not good or bad. But in the past, people used to say that, based on their differences, some kinds of people deserved food and others didn't." The child looked confused. "But we've had differences for centuries now," said Owen in the back, stubborn. "There are hundreds of manéras, and nobody treats anyone differently" (Byrne 2021, 433-4).

The Laviaja society has enjoyed generations in which differences were celebrated, but is now on the verge of returning to a society in which differences are inscribed as negative. This arguably signals a return to a humanist mindset that feminists and posthumanists criticize, namely a notion of the human subject that is sustained by a negative reduction of those not included. Tanaaj, for instance, harbours negative feelings towards the sedentix, a minority group who has opted out of nomadism and chosen to retain traditional family structures. When Tanaaj receives a work assignment from the mutual aid algorithm ordering her to aid an old sedentix person on her death bed, she initially wants to reject the assignment (Byrne 2021, 334). She is confronted by the aid she replaces, who worries that her prejudice towards the sedentix will affect the care she gives:

Although many aspects of Byrne's world-building challenge the Self/Other dichotomy, the central conflict arguably questions the possibility of overcoming othering. Although there is no *unitary* subject to support the construction of the Other, the process of othering may be unavoidable if the category of the Other is, like de Beauvoir contends, "as original as consciousness itself" (Beauvoir [1949] 2011, 6) so that "a fundamental hostility to any other consciousness is found in consciousness itself" (Ibid., 7). De Beauvoir supports her claim by pointing to the expression of Self/Other duality in primitive societies and ancient mythologies (Ibid., 6;81). Byrne's novel, however, questions the stability of such a duality in its representation of the ancient Maya society in the 1012 plotline. While the Mayan society represented in the novel undeniably is hierarchical, the heirs of the Mayan dynasty have a mindset that challenges the assumptions of the nature of this duality in ancient societies: "He watched the captive move, knowing exactly how she felt in her body, even as he was in his own body. This is the kind of king he would be: other and self, simultaneously" (Byrne 2021, 289).

For those who agree with De Beauvoir that othering is fundamental to human nature, the posthuman ambition to deconstruct the Self/Other dichotomy and other problematic dualisms could seem utopian. Yet, from a posthuman perspective, claiming that otherness or alterity is a fundamental human quality reveals an essentialized attitude towards the human (Ferrando 2020, 70). Posthumanists emphasize that the human is not one, but many. It follows that while some may have a tendency to see the world through the lens of negative comparison and hierarchy mindsets, others may have interdependence, relationality, affinity and kinship as core characteristics (Ibid.). Utopian future societies in speculative fiction are often based on and emphasize these aspects of human existence. *The Actual Star*'s mutual aid, kinship systems and relationality are good examples of this.

Although the renegotiation of the categories of sex and gender in *The Actual Star* is only partly successful, it seems to be an honest attempt at envisioning what these identity categories may look like in a posthuman and post-dualistic future. The novel's treatment of the Self/Other dichotomy, on the other hand, seems to be more consciously contradictory.

[&]quot;[...] I don't know if you have ill will toward ahn because ih is a sedentix, but if you do, you must put it aside."

[&]quot;I carry ill will toward no sentient being," said Tanaaj.

[&]quot;Though I pity many."

[&]quot;You call it pity," said Clementine. "I call it anger."

[&]quot;To be frank," [she] continued, "the tone of the LFC's propaganda troubles me. You have names for the sedentix: 'settlers' and even 'hoarders' [...]" (Byrne 2021, 340).

While aspects of the world-building and the narrative structure successfully destabilize the Self/Other dualism, the central conflict questions the possibility of humanity overcoming this obstacle. *The Actual Star* thus avoids giving a definite solution to the problem of othering, but rather brings the question to the surface by treating it from a number of different angles.

Chapter 2 – Technology, hybridity and (post)human identity

From its beginnings, posthumanism has been concerned with the relationship between the human and the non-human in various forms; non-human species, technology, and the environment, in particular. Haraway's "A Cyborg Manifesto" (1985) established a strong link between feminism and science and technology, and her take on the hybrid body has been highly influential for the development of posthuman theory. Four decades later, developments within the scientific study of genes and technologies for genetic modification means that we not only can manipulate genetic expression and make "designer babies", we can, and already do, produce different forms of hybrids between the human and non-human. Developments within xenotransplantation means that hundreds of thousands, if not millions, of people have already received living cells or organs from non-human species, and are thus, by definition, human-animal hybrids. This number is far exceeded by that of people with a pacemaker implantation who are, by definition, human-machine hybrids. While technology offers incredible opportunities, it also creates new forms of difference. If the humanistic, unitary subject is not destabilized and the notion of the human renegotiated in post-dualistic terms, new forms of discrimination will likely continue to arise, such as discrimination against humans that are or are not genetically enhanced, or against hybrid humans (Ferrando 2020, 189).

Because it is both a tool to create, but also itself a constituent in, forms of hybridity, technology is an essential element in the process of imagining and defining humanity for the future. The relationship between human and technology is, accordingly, one of the major concerns of posthuman theorists. Many contemporary works of feminist speculative fiction explore the potential roles of technology for future notions of the body and of human identity. These works of fiction not only imagine the opportunities for the future that scientific and technological developments offer, their treatment of technology arguably also reveals different, often contrasting, philosophical standpoints regarding the notion and status of the human. While tech-heavy science and speculative fiction has traditionally received little scholarly attention, the ongoing shift from humanistic dualistic mindsets to posthuman post-dualistic mindsets is perhaps nowhere more evident than in this literature. As Haraway's cyborg, "a fiction mapping our social and bodily reality" (Haraway 1991, 150), is turning into reality, the cyborg is more relevant now than ever. The fictional cyborg lives on as various forms of hybrid organisms featured in narratives of feminist speculative fiction. Although many of these hybrid figurations are undoubtedly indebted to Haraway's cyborg, not all of

them are real Harawayan cyborgs. Haraway's cyborg intended to dismantle dualisms and disturb hierarchies and power structures (Ibid., 174-5). As we shall see, some representations of hybridity in feminist speculative fictions intend to and succeed in dismantling such dualisms, and thus represent a posthuman mindset, whereas others do not.

In this chapter, I will discuss the role of technology in Byrne's *The Actual Star* within a feminist, posthuman theoretical framework. I will explore its role in the dismantling of a number of dualisms and comment on its implications for important posthuman and feminist concepts such as relationality, embodiment and materialization. I will compare and contrast *The Actual Star* with Butler's *Lilith's Brood* to show how feminist speculative narratives navigate between posthuman and transhuman understandings of technology and the body. Finally, I will explore how hybridity and the cyborg function in feminist speculative fiction.

Representation of the body and technology in feminist speculative fiction

Mary Shelley's *Frankenstein* (1818), by many counted as the first science fiction novel, is one of the first works of speculative fiction that explores the relationship between the body, technology and identity. While the golden age of science fiction in the 1920s and 1930s was more focused on motifs like spaceships, ufos, time travel and aliens, the rise of feminist speculative fiction in the latter half of the century has helped turn the attention back to the body. Artificial intelligence, genetic modification and different forms of hybridity are examples of recurring motifs in the speculative fiction of the last decades. Through their representation of these motifs, works of speculative fiction contribute to the discussion of a number of important questions in posthumanism: What motivates the use of technology to change or enhance the human? What is a posthuman body, and how does it relate to the rest of the world? How can technology and hybridity alter the way we think about identity and subject formation?

In some early feminist speculative narratives, although technology may have an important role in the narrative, it has not yet been applied to the body. In both Joanna Russ's *The Female Man* (1975) and Ursula Le Guin's *The Dispossessed* (1974), technology is central to the plot, but the relationship between bodies and technology largely remains unexplored. In Le Guin's *The Left Hand of Darkness* (1969), however, although technology is not an important part of the narrative, the narrator reports that the sexual physiology of the gethenians is likely a result of genetic manipulation performed on the population by human colonists (Le Guin [1969] 2018, 89). In the decades following Le Guin's novel, the relationship between the body and technology became a central theme in many feminist

speculative narratives. In the *Lilith's Brood* trilogy by Octavia Butler (first published 1987-9), for instance, bio-technological modification of humans forms the basis of the central conflict of the plot.

Technology and sex/gender in *The Actual Star*

In contemporary speculative feminist fiction, technology is increasingly explored as a tool to change the biological premises of sex and reproduction. As discussed in the first chapter, *The Actual Star* presents a future world in which the notions of biological sex and gender identity differ from our own reality. Technology plays a crucial role in enabling this change, as "all newly pregnant viajeras induce epigenetic treatment so that their baby is born with a womb, vagina, penis, and testicles" (Byrne 2021, 581). The novel does not explore the specifics of this treatment, but "epigenetic" implies that it is a modification of the *expression* of the genes in each foetus rather than a permanent change to the human genome. The novel presents this as uncontroversial, and does not discuss the ethical implications of modifying human foetuses, parent or child consent, or the many likely controversies that such a situation produces. It would have been interesting if this had been more thoroughly explored through one of the novel's protagonists.

Interestingly, the omnipresence of genitalia is presented as a solution to a population bottleneck. It originated as a measure to ensure the survival of the human species, not as a result of feminist or posthuman political agenda. Despite this, the resultant sex/gender system serves both posthuman and feminist interests as it, as I have shown, at least partly succeeds in making these identity categories post-dualistic. Moreover, the epigenetically modified foetuses in Laviaja are cyborgs: Each baby born into this society is the product of both biology and technology and a living manifestation of the dismantling of the male/female dualism, as well as the blurring of the nature/culture and natural/artificial dichotomies. The techno-biological foundation of these lives illustrates an important point in posthuman feminism, that technological mediation emerges as "the second nature" (Braidotti 2022, 143-4). Technology is increasingly seen as a fundamental, integral part of the human, and is therefore in the process of being "naturalized" as it becomes gradually more inextricable from our biology. This development collapses the biology/technology and natural/artificial binaries.

Since every person in Laviaja is born with both sets of genitalia and can go through pregnancy, the particular association between the female body and reproduction, pregnancy and nurturing is de-emphasized. The novel puts emphasis on non-biological kinship systems, and people live in temporary family groups. Children, even infants, are usually not raised by

their biological parents, but by a succession of parent figures. Technology is used to make breastfeeding possible for all adults: "[Tanaai] drew her finger around her nipple three times to induce" (Byrne 2021, 201). The Actual Star presents its social organization as an alternative to the nuclear family, that according to feminist theorists "naturalises hierarchy, constricts us socially and privatises care" (Weeks 2021, 6). The social structure of Laviaja also resonates with posthuman theorists' call for more sustainable and wider circles of care, most notably Donna Haraway's famous proposal to "make kin, not babies!" (Haraway 2016, 103). While Haraway's kinship proposal is coming from the perspective of environmental sustainability, it also has great implications for corporeal politics and the female body in particular. When social care, especially for children, is made a public, rather than private, responsibility, the female body is potentially liberated from the social expectations that have made it predominantly a site of reproduction and maternal responsibility. The Actual Star's focus on the body as a site of pleasure, especially sexual pleasure outside the context of reproduction, is arguably an expression of this liberation of the female body. Yet, the novel also shows how the protagonist Tanaaj struggles with cutting the contact with her biological child, Messe. Tanaaj receives messages from her, but resists "reaching back to her, grasping as if she owned her" (Byrne 2021, 93). Byrne implicates the complexity of biological systems of attachment that centuries of technological and social modifications in Laviaja have evidently not been able to override. While this might implicate some degree of biological determinism, it also makes the reader question what really defines us as humans. For while the bodies of the humans of Laviaja are significantly different from ours (more on this later), Tanaaj's emotional turmoil is recognisably human.

Technology, relationality and subject formation in *The Actual Star*

Technology also forms the basis for the organization of care in Laviaja. While some social needs are met by the temporary family configurations, there is also an automated mutual-aid algorithm called "paragua" that distributes assignments for carework based on skill and need. Such assignments are distributed through a virtual network to each person's otracortex, a brain growth that allows participation in this network. Each person has an artificial intelligence (ai) integrated with their brain and body in such a way that they can employ their ai by a chosen physical gesture such as touching a particular body part, or by thinking a command (Byrne 2021, 578). In this way, they can control their participation in the augmented reality, a virtual network that connects all otracortices. This augmented reality is

used for visualization and data processing, as well as interaction with each other and with the paragua algorithm (Byrne 2021, 586).

The role of technology in the future Laviaja society in *The Actual Star* is particularly interesting from a posthuman theoretical perspective. In this novel, technology enables the dismantling of a number of dualisms, with important implications for subject formation. The networked otracortices effectively blur the boundaries between bodies, and hence, between individuals, in Laviaja. It is, arguably, impossible to determine where one body stops and another begins when each person has an artificial intelligence that is integrated with the ai of others in a common augmented reality.

The role of technology in the novel implicates relationality over individuality as the core of subject formation. Just like the line between bodies are blurred, the line between the inside and outside of "self" dissipates. Each person thus becomes partly constituted by her relation to others and concomitantly co-constitute others through the virtual network. This is facilitated in Laviaja through technology that helps individuals to see and incorporate others' perspectives. The technique is called braiding and involves a virtual representation of a multitude of perspectives in the augmented reality. This can be used by individuals who are looking for answers to particular questions, but it is also employed on a larger scale as a technique for political decision-making. In the following quote, the protagonist Tanaaj thinks back at the first time she practiced braiding as a child:

"It was so difficult the first time. How was it possible to find commonalities among streams of information that were so different? How was it possible to reconcile them, to apply them to a problem? How could anyone use this technique in the Tzoyna, the hallowed virtual space where a thousand viajeras were debating at the same time?" (Byrne 2021, 102).

Incorporating others' perspectives through braiding is inherently posthuman because of the emphasis on preserving a plurality of perspectives as well as the symbolic incorporation of the Other into the Self. Braidotti describes posthuman subjectivity as "relational and hence in constant negotiation with multiple others" (Braidotti 2019, 42). This emphasis on relationality fits well with the world-building in *The Actual Star* in which the Laviaja society itself can be understood as a technologically mediated social body, part virtual and part actual. Braiding and posting questions to the Tzoyna may also, in a posthuman perspective, be understood as a way to deconstruct the "center of the discourse" to allow a plurality of perspectives to co-exist (Ferrando 2020, 56). Decentering hegemonic modes of knowledge production is an important

goal for posthumanism, and braiding may represent such a decentered model in which everyone has access to participate in knowledge production on an equal basis.

In Butler's *Lilith's Brood*, the aliens have a similar way of communicating that ensures the coming together of different perspectives. They call it a "consensus" and it involves the neurological transmission of signals through the "ship", which is itself a living entity that the aliens are in a symbiotic relationship with. When the protagonist in Adulthood Rites, Akin, wants to ask the permission to pursue the idea of an all-human Mars colony, he lets the question be treated by the community through such a consensus: "Many answers blended through the ship into one [...]" (Butler 2022b, 248). This system of communication is interesting because it confuses the borders between individual bodies, between Self and Other, and between mind and body, much like the braiding in *The Actual Star*. The aliens are also able to share their perspectives in immersive ways that allow recipients to directly experience feelings and perspectives that are not their own. This happens through an illusion created by neurological stimulation. In the following, Akin shares his experience of being abducted: "Akin lay down next to the ooloi [...] its many head and body tentacles linked with him [and] he gave it the experience of his abduction, captivity, and conversion. All that he had felt, he made it feel [...] He overwhelmed it so that for a time it was, itself, both captive and convert" (Butler 2022b, 246). The result, arguably, is a deeper understanding of others, which in its turn destabilizes the Self/Other binary and prevents othering.

Integration of mind and body, embodiment and de-/re-materialization of bodies in *The Actual Star*

People in Laviaja can use their thoughts to employ the use of their artificial intelligence. This implies that the artificial intelligence is integrated with the "natural" cognitive function, and that there is no clear boundary between the two, between the artificial and the natural. Likewise, there is no clear boundary between cognitive function and physical body, as one can use physical touch to employ this ai that is both integrated with the body and extends beyond the physical boundaries of it to network with others' ai. The novel thus illustrates Braidotti's point of "the embodiment of the brain and the embrainment of the body" (Braidotti 2022, 113), simultaneously rejecting the Cartesian mind-body dualism and the binary nature of physical and non-physical. This perspective also reflects a materialist understanding of physical matter and thought as "different but equal attributes and expressions of the same substance" (Ibid., 121).

The Actual Star experiments with alternative forms of embodiment. While the artificial intelligence is, as I have argued, integrated with mind and body, each person's ai

also contributes to the augmented reality, which is represented virtually as the shape of a tree (Byrne 2021, 105). The virtual representation of the augmented reality as a tree is, the way I see it, the embodiment of the intertwined perspectives, of the social body or community as a whole. Embodiment is an important concept both for feminists and materialist posthumanists. It has been important for many feminists to ground the female experience in the context of the body, to emphasize that our individual experiences are mediated through the female body, with the particular vulnerabilities and pleasures that that entails. This embodied perspective emphasizes the body as inextricable from this experience, so that our mode of "being-in-theworld" is always really a matter of being-in-my-body-in-the-world (Young 2005, 6). The technological development of digital and virtual realities has taken the discussion of embodiment to a new level. Katherine Hayles warned against the disembodied perspectives of cybernetics in the 1990s (Hayles 1999), and Ferrando underlines that, from a posthuman perspective, every perspective is embodied, whether it is physical, digital or virtual (Ferrando 2020, 155). Yet, not every virtual representation, like avatars and holograms in *The Actual* Star, are actually embodiments although the perspectives they represent are indeed embodied. An example is the hologram that Tanaaj's child Messe sends her. It represents her body, but the experience and message it conveys is grounded in Messe's real body, not in the hologram. Albeit intriguing, a further discussion of virtual embodiment is therefore not relevant in the context of this novel.

The discussion of embodiment does, however, overlap with the discussion of matter and materialization of bodies. Some might argue that the future role of technology in *The Actual Star* reflects a de-materialization of bodies. In Laviaja, bodies can be understood as providers and receivers of data, feeding the augmented reality and the paragua algorithm with information that, in its turn, directs the bodies. In such a view, the material and physical reality has become subordinated to the digital/virtual/technological, and bodies are dematerialized, with the physical aspect of them decentered. However, one can also argue that the very same bodies are re-materialized by being grounded in social networks with others, networks that are technologically mediated through the augmented reality and paragua algorithm. Such opposing forces of de- and re-materialization are, in fact, characteristic of the process that establishes posthuman subjectivity (Braidotti 2022, 149), and the result is "the simultaneous exposure and disappearance of what used to be 'the' body into multiple networks of techno-mediated, bio-genetic and computational practices" (Ibid., 142).

Posthumanism versus transhumanism in *The Actual Star* and other works of feminist speculative fiction

I have now discussed how the use of technology in the Laviaja society in *The Actual Star* has led to the successful dismantling of a number of dualisms; between technological and biological, male and female, mind and body, physical and non-physical, and Self and Other. In this respect, the humans of this society are true Harawayan cyborgs. As a post-dualistic figuration, the cyborg is a useful tool in narratives of feminist speculative fiction that imagine how future identities can be constructed that challenge the hegemonic, unitary humanistic subject. While the technological advancements discussed so far contribute to the deconstruction of this subject, technological advancements can also reflect transhuman, rather than posthuman, interests. Posthumanism rejects the humanist understanding of the human by decentering the human, deconstructing the hegemonic, unitary humanist subject and dismantling the dualisms that forms the basis for that subject. Transhumanism, on the contrary, builds on the humanist ideas of reason and progress and sees the human body as a project that we, by application of reason and technology, can enhance beyond its current limitations or even replace entirely, as in the case of mind-uploading.

An example of a technological enhancement of the human body in *The Actual Star* that can be interpreted as transhuman, is the so-called "pelt". Pelt is the skin of the humans in this future society, but it has been enhanced by technology so that it can regulate body temperature better, tolerate heat, regenerate limbs, develop tail, gills, or parachute, augment or reduce sexual organs, and even produce sugar through photosynthesis and deposit it in the bloodstream (Byrne 2021, 587). Arguably, the human skin constitutes one of the most vulnerable parts of the human body as it is our shield against harsh environmental factors like radiation, heat or cold. In that capacity, an enhancement of the skin's ability to withstand such factors is in line with transhuman interest in overcoming the limitations of the body. On the other hand, the very same pelt can also be used to give humans non-human traits like tail or gills, or the capacity to photosynthesize. The result is a potential blurring of the human and non-human, which serves post-dualistic, posthuman interests.

Similarly, the use of artificial intelligence in *The Actual Star* can easily be read as a transhuman enhancement of the human. However, as we have seen, because of the way that it is integrated with the body and cognitive function of the human, it signals the dismantling of dualisms like natural/artificial. Likewise, when it is used to facilitate braiding, it helps to dismantle the Self/Other dualism. Artificial intelligence also serves postanthropocentric purposes in this novel. When humans encounter animals, their ai automatically translates the

animal's sounds to verbal language (Byrne 2021, 52). While that expression not necessarily makes much sense without the aid of a "therolinguist" translator (Byrne borrows Le Guin's term here), this use of ai signals interest in and validation of the non-human perspective and helps shift the human from the hierarchically privileged position.

While some of the technological enhancements in *The Actual Star* are ambigiously post- or transhuman, the bio-technological modification of humans in Octavia Butler's Lilith's *Brood* trilogy arguably reveals largely transhuman ideas. In this trilogy, humans are on the verge of extinction because of their so-called "Human Contradiction", a lethal combination of intelligence and hierarchical behaviour (Butler 2022b, 217). Humankind can only be saved by hybridity with the aliens, who will modify their hierarchical tendencies (Butler 2022a, 44). The aliens in this trilogy believe that humans are inherently flawed. Even if a select few get the opportunity to start over by establishing a human settlement on Mars, it would be "like breeding intelligent beings for the sole purpose of having them kill one another" (Butler 2022b, 284). The human-alien protagonist in Adulthood Rites, Akin, thinks the only chance humans have to survive if they're not genetically altered by the aliens, is by chance, mutation or unexpected effects of the new environment on Mars (Ibid.). The idea that the human body is flawed and that its biology poses a number of limitations that the use of biotechnological modification can overcome, is inherently transhuman (Ferrando 2020, 37). The transhuman idea that humans can use their intelligence to develop technology that can propel humans "beyond the severe limitations of humans as we know them today" (Kurzweil 2005, 324-5), is problematic from a posthuman perspective for a number of reasons. First, the idea that humans may use their intelligence to overcome the limitations of their bodies reinforces the Cartesian mind-body dualism and deepens the hierarchical and oppositional nature of that binary. It also reveals humanistic and anthropocentric ideas of human mastery and domination over nature, justified by our exceptional intelligence, which according to Kurzweil is "evolution's grandest creation" (Kurzweil 1999, 35). In the Lilith's Brood trilogy, human intelligence is, indeed, foregrounded as a unique and exceptional trait, but the aliens also recognize our inherent hierarchical tendencies. While a critique of hierarchization and dualistic mindsets is in line with posthuman ideas, posthumanists also underline the human "not as one but as many" (Ferrando 2020, 70), and to claim that hierarchical behaviour is a fundamental, human trait reflects an essentialized view of humans. The human is, according to Ferrando, not an essence, but a process: "[O]ne is not born human, but rather becomes human through experience, socialization, reception, and retention (or refusal) of human normative assets" (Ferrando 2020, 71). Humans are, according to Lilith's Brood, governed by

their flawed genes. This universalized and essentialized perspective is combined with determinism in a way that leaves little room for human agency. Compared to the transgressive potential of utopian visions like *The Actual Star*, such dystopian literature may normalize "a passive indulgence in our terrifying reality, thereby paralyzing radical challenges to its terms and conditions" (Moylan 2022, 2).

In *Lilith's Brood*, it is the alien Oankali who intervene and save the humans who, despite their "exceptional" intelligence, can't help but kill one another. It is also, importantly, the aliens that have transhuman values, not the humans themselves, most of whom resist being altered. Moreover, while the idea of the flawed body is more in tune with transhumanism than posthumanism, when modification or enhancement is presented as a necessary measure for the survival of the species, this is perhaps best understood not in terms of post- or transhumanism, but in terms of what human survival entails in the Anthropocene. An important point Butler makes in *Lilith's Brood* is that human survival equals change, which is in line with Braidotti's rejection of the extinction/survival binary (Braidotti 2019, 67). Humans cannot survive as we are, but as something new/different/beyond/"post" our current understanding of the human. *Lilith's Brood* arguably expresses the challenges of accepting that our survival as humans depends on our willingness to embrace change. It is not a matter of becoming extinct *or* surviving. Survival entails becoming posthuman by preserving some of what has defined us as humans and leaving some of it behind to give room for new yet to be explored possibilities.

Despite the fact that this overall message in *Lilith's Brood* is in line with posthuman ideas, and that some of the modifications are presented as necessary for the survival of the human species, other modifications are mere enhancements that arguably serve transhuman interests. The aliens, for instance, extend the longevity of humans. Finding ways to overcome the finitude of human life, so-called radical life extension, is one of the overall goals for many transhumanists. Butler presents a scenario in which humans can be preserved by a biological system, engulfed by larvae-like entities of an organic-technological aircraft (more on this "ship" later). When Lilith is first awakened by the aliens, her body has been preserved like this for 250 years without aging (Butler 2022a, 17). The aliens also dramatically increase life expectancy in humans that are not put to "sleep", in part by healing diseases and deleting genetic disposition for disease. When the protagonist in *Dawn*, Lilith, is awakened, the aliens have already, without her consent, modified her body to reabsorb a cancer tumour she was not even aware of (Butler 2022a, 22-3). The aliens can also directly modify the expression of genes in humans, by the same epigenetic mechanism that is proposed in *The Actual Star*.

Neither Byrne nor Butler thoroughly explores the moral questions that epigenetic modification entails, whether performed by aliens or humans. It is problematized in Butler's trilogy only to the extent that (some of) the humans are reluctant to being cured for their disease. There is, also, a significant difference between activating/deactivating genes (epigenetic modification) and replacing unwanted genes because the latter may be a heritable change. In *Adulthood Rites*, one of the characters, Tate, develops symptoms of Huntington's Disease. Because she is one of the humans who prepares to partake in a human colony on Mars, Akin pressures her to promise him that she will let the aliens replace the genes that cause the disease:

"You can't introduce this to the Mars colony. You know you can't. It would spread through the population in a few generations."

"I know."

"You'll let it be corrected, then?"

"Yes." The word was hardly more than a moving of her lips, but Akin saw it and believed her.' (Butler 2022b, 292).

While a life free from disease and pain may seem like something worth striving for, genetic modification is an ethical minefield that implies a plethora of questions that should be, but are not, addressed in Butler's trilogy: Who decides what genes can, should or must be modified or replaced? If Tate had not accepted to be "corrected", had she been denied the opportunity to have kids? From a posthuman perspective, genetic modification poses a risk to the goal of a positive renegotiation of difference in which differences are celebrated. Furthermore, it is likely to reinforce dualisms like normal/abnormal and ablebodied/disabled. Eventually, large-scale genetic modification may also lead to the rise of a unitary, able-bodied subject that causes less tolerance for deviance and weakness.

The essence of technology and its integration with biology in Butler's *Lilith's Brood* In Butler's trilogy, the reader is likely to think of the modification of humans as a technological modification because, to the degree that such modification is possible in our reality, it is a matter of using tools developed through medical science and technology. In Butler's work, however, technology is presented as inseparable from biology in intriguing ways. The ooloi, who perform most of the changes in humans, do not use tools or technology in our modern understanding of the term. Instead, biology and technology are integrated in their bodies in a dynamic that is incomprehensible to the reader, whose conception of the term evidently is too limited. This prompts a renegotiation of the term in line with a posthuman understanding of technology as inseparable from biology and from the body. While in *Lilith's*

Brood, it is the aliens, not the humans, whose bodies integrate biology and technology, the aliens' bodies represent posthuman features and futures. According to Ferrando, the inseparability of human and technology is crucial to the concept of the posthuman (Ferrando 2020, 39). When the ooloi's bodies connect physically to other bodies, like humans', they "read" the bodies; they perceive physiological processes and access the genetic material in the cells. The ooloi can modify humans, using the human genetic material as a raw material to change humans the way they see fit. The exact mechanism by which they do this is only discussed in-depth in the last book of the trilogy, in which we learn that the aliens have an organ for genetic manipulation located between their two hearts. "Within it, ooloi manipulated molecules of DNA more deftly than Human women manipulated the bits of thread they used to sew their cloth" (Butler 2022c, 26). The modification of DNA is therefore, undeniably, a biological process. At the same time, it is arguably technological in the sense that it is "the means to an end" (Heidegger [1953] 1977, 4) and a "mode of revealing" (Ibid., 13). These phrases are borrowed from German philosopher Martin Heidegger, whose essay "The Question Concerning Technology" (1953) has had great influence on posthumanism's understanding of technology. In this essay, Heidegger grapples with the essence of technology and argues that the modern understanding of technology is reductionist because it limits the way we see the objects we apply technology to. These objects become "standing-reserves" for humans to utilize (Ibid., 17). This is, of course, connected to ideas of the Enlightenment and Industrial Revolution, in which nature, on a much larger scale than before, became an object for our mastery, a means for humans' continued progress. While Heidegger's essay was written before the terms post- and transhumanism were even coined, Heidegger is criticizing the foundation for transhumanism's attitude towards technology and progress (Ferrando 2020, 42). Lilith's Brood presents a post-anthropocentric twist of the humanistic narrative of human mastery of nature. In Butler's narrative, it is instead the humans that are reduced to a raw material, a "standing-reserve" for the alien's utilization. They are not rescued for their own sake, but to supply the aliens with much-needed genetic diversity. The humans thus serve as a tool in the aliens' continued progress. This aspect of the novel suggests a post-anthropocentric perspective, where humanity is no longer at the centre of civilization and the universe. Critics often also read this dynamic between aliens and humans within a postcolonial theoretical frame (see for instance Cox 2016), which, will not be elaborated on here because it falls outside the scope of this thesis.

The ooloi are not the only representation of integrated technology and biology in *Lilith's Brood*. The so-called "ship", named Chkahichdahk, that features throughout the

trilogy is, from a posthuman perspective, one of the most interesting aspects of the novel. It represents a complex hybrid creature that challenges many human-made categories of classification. Early on in the narrative, the ship is described as both plant and animal, and "more" (Butler 2022a, 37). Chkahichdahk is not only an unidentifiable mixture of plant and animal, it also functions as a vehicle for the aliens to travel through space in search for new species to intermix with. A massive, spherical vehicle, it constitutes the entire world for the aliens while they look for new species to intermix with (Butler 2022b, 129). It forms both the landscape and the walls of their living quarters, and it can be molded to suit the needs of the aliens, for example in the shape of tables and beds. In that respect, it resembles a non-living material. The ship can exhibit entire living habitats for the aliens because it divides into several entities, shuttles, that attain biodiversity through harvesting whatever it comes across on the planets the aliens visit: "The small ship-entities fed whenever they could. There was no faster way to destroy a town than to land a shuttle on it and let the shuttle eat its fill" (Butler 2022b, 151). The relationship between the aliens and Chkahichdahk is described as a "symbiosis", a relationship of interdependence and biological affinity in which the aliens serve the ship's needs and it serves theirs (Butler 2022a, 37). The ship is also, significantly, described as having feelings and preferences: "[One of the aliens] penetrated the flesh of the platform – of the Lo entity – and asked it to send Nikanj. It liked doing such things. Nikanj always pleasured it when it passed along such a message" (Butler 2022b, 196). The ship is described as intelligent, albeit with a "dormant" intelligence. Yet, it "can be chemically induced to perform [...] functions" and it "does a great deal on its own without monitoring" (Butler 2022a, 37). It thus has some agency, but is also controlled by the aliens. Gradually, it becomes clear that the ship and its entities are themselves a hybrid between an earlier form of the alien and other species. However, it is also deliberately "produced" by the aliens: "From their own genes and those of many other animals, they fashioned the ancestors of the ships" (Butler 2022b, 216).

From the many descriptions of the features of the "ship", it becomes clear that it is a complex hybrid: It has alien genes but harbours the characteristics of the many plants and animals it consumes. It is simultaneously a living creature with feelings, urges, and some degree of agency, and a material tool for the aliens to use for a variety of purposes. It thus transgresses the dualistic categories of animal/plant, alive/dead, active/passive and biological/technological. Faced with the unfamiliar blending of these categories, the reader continuously struggles to make sense of and define the "ship". Consequently, the reader

questions not only the dualistic nature of the categorization, but the adequacy of the categories themselves.

The role of hybridity in feminist speculative fiction

In the discussion so far, I have explored the various roles of technology in feminist speculative fiction. Technological developments can be used to change the premises of bodily differences based on biological sex, thus aiding the transgression of the male/female dualism. It can also be used as a tool to create hybrid creatures, as we see both in real life machine/human and animal/human hybrids, and in speculative technologies of the future in fiction, as in the case of the advanced "pelt" skin in *The Actual Star*. In speculative fiction, technology is often itself a constituent in various hybrid beings. The discussion of *The Actual* Star and the Lilith's Brood trilogy shows that such hybridity can manifest in very different ways in fiction. In the former, technology is concretely integrated with the human in the form of artificial intelligence and virtual realities. In the latter, the alien bodies and the ships confuse the boundaries between technology and biology in a more abstract way. Technology in the modern sense of the word is not even mentioned in the narrative. Instead, the way that biology is presented makes the reader question whether technology and biology were ever really separate realms. Haraway points out that "there is no fundamental, ontological separation in our formal knowledge of machine and organism, of technical and organic" (Haraway 1991, 178), and Ferrando, clearly influenced by Heidegger, asserts that "technology is not something separated from the human, but can be seen as a mode of biological revealing" (Ferrando 2014, 215).

A discussion of hybridity and technology in feminist science fiction is not complete without a consideration of how it relates to the cyborg figuration. The term cyborg was first coined by Manfred Clynes and Nathan Kline in 1960 and refers to a being constituted by both biological and artificial parts (Clynes and Kline 1960). The term has become unequivocally associated with Donna Haraway after her seminal essay "A Cyborg Manifesto", where the cyborg features as a literary figuration, "a hybrid of machine and organism" (Haraway 1991, 149). Although the cyborg figuration has come to be known as this specific type of hybrid, the Cyborg Manifesto reveals it as much more. The cyborg is "a creature in a post-gender world" (Ibid., 150) that appears "where the boundary between human and animal is transgressed" (Ibid., 152). Thus, the machine-organism hybridity is a powerful representation of a much more general post-dualistic mindset. Haraway's project becomes clear towards the end of the essay:

"[C]ertain dualisms have been persistent in Western traditions; they have all been systemic to the logics and practices of domination of women, people of colour, nature, workers, animals – in short, domination of all constituted as others, whose task is to mirror the self. Chief among these troubling dualisms are self/other, mind/body, culture/nature, male/female, civilized/primitive, reality/appearance, whole/part, agent/resource, maker/made, active/passive, right/wrong, truth/illusion, total/partial, God/man" (Haraway 1991, 177).

To the extent that they contribute to dismantle such dualisms, all hybrid creatures arguably function as cyborgs. The inhabitants of the future Laviaja society in *The Actual Star* are therefore cyborgs in more than one capacity; their ability to photosynthesize makes them human/plant hybrids; their gills or tails makes them human/animal hybrids; their otracortices makes them human/machine hybrids. As I have shown, they also challenge the male/female, Self/Other and mind/body dualisms. They are what can be termed "multidimensional" cyborgs in that they challenge a number of different dualisms. The same can be said of the "ship" in *Lilith's Brood*, which not only challenges the biology/technology dualism, but also the maker/made, active/passive and alive/dead dualisms.

Next to the cyborg, Haraway mentions the monster as a creature of "political possibilities" (Ibid., 180). The monster, much like the cyborg figuration, functions by dismantling dualisms: The monster is at the same time real and unreal, primitive and civilized, good and evil. According to Braidotti, "the simultaneity of opposite effects is the trademark of the monstrous body" (Braidotti 1996, 136). The monster is also both Self and Other (Ibid., 141) and its figuration can be understood as an "embodiment of difference" (Ibid., 150). This makes the monster figuration a helpful tool in post-dualistic, posthuman narratives. Race and gender as marks of difference have historically been linked to monstrosity (Ibid., 141), and the particular link between monster and the female body makes this figuration a potent motif in feminist speculative fiction. Although neither The Actual Star nor Lilith's Brood has monsters as a central part of their narrative, they still experiment with radical otherness and monstrosity to some degree, namely in the form of aliens and mythical creatures. I have already discussed the representation of the radical otherness of the aliens in Lilith's Brood in the first chapter of this thesis. In *The Actual Star*, mermaid is one of the manèras. The character Emelle has been one for a few years. She has silver hair and lilac skin, and travels in water whenever she has her tail on (Byrne 2021, 140-2). Although mermaids are not explored in depth in *The Actual Star*, Byrne's choice of including this mythical creature is interesting. In the Cyborg Manifesto, Haraway discusses the disruptive function of two other mythical creatures, the amazon and the centaur, that challenged the ideas of marriage and the male

warrior in ancient greek society (Haraway 1991, 180). According to mythology, mermaids had the power to entice seafarers and lure them into the dangerous sea. They can thus represent the dangers of female power. Interestingly, mermaids were also associated with the dangers of promiscuity. Their realization and status in *The Actual Star* may symbolize the empowering of women and the renegotiation of female sexuality, as discussed in the first chapter of this thesis.

As figurations of radical otherness, monsters, aliens and mythical creatures not only challenge dualisms in ways similar to the cyborg. By harbouring elements of the unknown and thus defying stable categorization, they refuse to be subordinated and pose a symbolic threat to the hegemonic subject.

Conclusion

In this thesis, I have explored expressions of posthuman thought in feminist, speculative fiction. I have used Monica Byrne's *The Actual Star* as my focal point and compared it with more famous speculative novels. The Actual Star's elaborate world-building has made it a good starting-point for the examination of sex, gender and sexuality on the one hand, and hybridity and technology on the other. My analysis has shown that the representations of these motifs often have similar philosophical implications, and that they contribute to a renegotiation of the notion of difference, to post-dualistic mindsets and to the development of a notion of a posthuman body and identity. I have used Francesca Ferrando's definition of philosophical posthumanism as the basis for my theoretical considerations. Her definition focuses on the post-humanistic, post-anthropocentric and post-dualistic aspects of posthumanism. While these aspects are equally important and, of course, interrelated with each other, I have put particular emphasis on the post-dualistic qualities of speculative fiction. In the post-dualistic ambitions of posthumanism, in particular, we see the embedded feminist call for renegotiation of difference. A focus on the post-dualistic qualities of feminist, speculative fiction is therefore particularly relevant, and should be given more academic attention.

Prominent feminists like Donna Haraway and Rosi Braidotti have influenced the development of the posthuman theoretical field for decades, and continue to do so to this date. From Haraway's Cyborg Manifesto (1985) to Braidotti's recently published *Posthuman Feminism* (2022), feminists ensure the continued importance of the body to posthuman theory. Their work also informs and inspires the fiction produced by feminist speculative writers. Haraway's cyborg figuration is a good example of this, variations of which abound in speculative fiction. While feminist and posthuman theories often remain at an abstract level, these theories come to life in the world-building of feminist speculative fictions that reimagine bodily categories like sex, race, abilities and hybridities. Feminist speculative writers use narrative to create possible futures. They suggest bold alternatives to our current reality, and brave ethical minefields associated with gender, sexuality and technological modifications of the body. Their fictions are possible answers to many difficult *what if*questions that these authors dare ask. "What may the world look like if we used technology to give everyone the chance to choose their biological sex?" Byrne asks, and *The Actual Star* is her answer to that question.

Imagining the future, however, turns out to be a complicated endeavour. In the first chapter, I explored the various ways in which feminist speculative narratives try to solve

discrimination based on difference. Many of these narratives rely on erasure of difference, which I have argued is not sustainable from a post-dualistic, posthuman perspective. Byrne's novel, on the other hand, more successfully renegotiates difference by replacing binary difference with a multitude, or a continuum, of difference. In this capacity, Byrne's novel and other speculative narratives that explore multi-sex or multi-gendered worlds are successfully post-dualistic. Yet, renegotiation of the categories of sex and gender is complicated by the limitations of our language. Narratives that stay within the frames of conventional pronoun use often do not fully succeed in renegotiating sex and gender in meaningful ways because the personal pronouns too strongly direct the reader's mind to accustomed conceptions of these categories.

Moreover, my discussion of hybridity in the second chapter shows that transhuman and posthuman ideas often coexist and compete within speculative narratives. When one keeps in mind the fundamental differences between these two philosophies, the one firmly grounded in humanistic ideas of reason, progress and human exceptionalism, and the other criticizing these ideas, it is curious how often one finds that elements in speculative narratives can be understood equally well as representations of posthuman and transhuman ideas. Their confusion, albeit frustrating at times, reminds us that posthumanism and humanism should not be understood in oppositional terms; posthumanism is not a mere rejection of humanism, but a reaction to it, and simultaneously a continuity, a discontinuity and a transcendence of it (Ferrando 2020, 66). Experimentation with the notion of the posthuman in speculative fiction therefore naturally involves the constant negotiation of different impulses and interests, including humanistic ones. Despite the implications of its title, Hayles argues in How We Became Posthuman that the alternative posthuman subjectivities are neither "complete transformations or sharp breaks", nor a matter of a universal human condition (Hayles 1999, 6). She also affirms the ongoing and creative nature of the process: "The best possible time to contest for what the posthuman means is now" and "we can draft [versions of the posthuman] that will be conducive to the long-range survival of humans and of the other life-forms, biological and artificial, with whom we share the planet and ourselves" (Ibid., 291). As I argue in this thesis, feminist speculative fiction is an important site for drafting such versions of the posthuman.

I will conclude by suggesting what kind of posthuman subjectivities that feminist speculative fiction produces. First, my analysis has shown that relationality is forefronted as the core of subject formation. *The Actual Star* and many other narratives focus on the intricate interconnectedness of life and matter. Different forms of hybridity are used in this fiction to

show how the human and the non-human, and the Self and the Other, are not separate, but rather co-constitute one another. Technology is increasingly approached as an integral part of our biology and identities. Second, through its treatment of different identity categories, speculative fiction strives to renegotiate difference outside of the binary mindset. Difference is no longer understood as a negatively inscribed deviance from a hegemonic subject, but as an expression of a multitude of possibilities. Consequently, the notion of the human is replaced by *notions* of the posthuman. Last, but not least, feminist speculative fiction insists on preserving the embodied perspective and ensures that the body remains at the centre of the renegotiation of the notion of the human. It is through the body that the celebrated differences and possibilities are manifested in this literature: The body emerges as a site of multitude; of sexes and hybridities. It is a site of transgression and interconnectedness, a site of liberation and pleasure.

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