

# Reproductive Justice: The Final (Feminist) Frontier

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## Abstract

From *Gattaca* to *Star Trek*, problematic tropes surrounding reproduction can easily be found in works of mainstream science fiction. Such tropes uphold conservative anxieties around reproductive technologies, abortion, and pregnancy, and these works thus become influential in legal, ethical, and policy discussions on these issues. In contrast, feminist science fiction attempts to expose reproductive injustice, both current and future, through portrayals of prototype social-legal contexts. In this article, I argue that feminist science fiction works are, therefore, of importance for feminist legal theory as they can help us imagine a radically transformed future for reproduction. I consider the work of Octavia Butler and Laura Lam as examples of reproductive dystopia highlighting current, past, and potential future socio-legal injustices. These feminist works call for change grounded in the lived experiences of women and people capable of becoming pregnant.

**Keywords:** Abortion; reproductive technologies; pregnancy; feminist science fiction; reproductive justice.

## Introduction

Science fiction, as a genre defined by its exploration of human futures, technological advancements, and societal evolution, is uniquely placed to imagine the radically different possibilities for reproduction in our future. However, mainstream science fiction (that popularised predominantly in the United States (US) and United Kingdom) has paid insufficient attention to these possibilities. Instead, mainstream science fiction works tend to reflect socially conservative attitudes towards women's reproductive roles and the development of reproductive technologies. In this article, I will critique common tropes that emerge in mainstream science fiction works around reproductive technologies, pregnancy, and abortion which uphold these conservative attitudes. Anti-abortion narratives, the tendency of women characters to be passive and maternal (even when faced with a non-consensual pregnancy), and dystopian ideas of ectogestation are influential tropes in cultural and legal debates on these issues.

Having identified this connection between science fiction and law, I will then consider how feminist science fiction, as an intervention into these problematic tropes, is also important for law. Following feminist scholars such as Donna Haraway, who have identified the significance of science fiction for feminist theory, I argue that feminist science fiction can be a key tool in feminist legal thinking by presenting prototype socio-legal contexts as a critique of gender-based inequalities. In relation to reproduction, these prototypes can highlight both current and potential future reproductive injustices, indicating the need for alternative socio-legal visions. Introducing the Reproductive Justice framework as a mode of analysis, I will explore, in the remainder of this article, the work of Octavia Butler and Laura Lam's relatively recent novel *Goldilocks* as examples of feminist science fiction as feminist legal critique. In looking to these works, we can start to imagine feminist reproductive futures.



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## Reproduction in Mainstream Science Fiction

### *Ectogestation and Reproductive Technologies*

The portrayal of reproductive technologies in mainstream science fiction films and television shows is often problematic. Feminist theorists, most prominently Shulamith Firestone, have highlighted the emancipatory potential of technological advancements that could remove gestation from the female body.<sup>1</sup> However, reproductive technologies such as ectogestation are rarely portrayed in mainstream science fiction in ways that benefit women and people capable of becoming pregnant. Rather, these technologies are introduced with a limited narrative function, one that reflects conservative anxieties around these potential future advancements. For example, in the 1997 film *Gattaca*, natural childbirth has been made rare by the use of artificial wombs to assist human reproduction—but not for the purposes of providing an alternative to gestational labour or supporting reproductive autonomy.<sup>2</sup> As Susan A. George highlighted, this technology is ‘not concerned or apparently even interested in the well-being of those women who choose to have “utero” children’.<sup>3</sup> Instead, *Gattaca* shows us the eugenicist consequences of ectogestation, where embryos are screened for the hereditary traits of their parents and those born outside of this selection programme—the ‘in-Valids’—are subjected to genetic discrimination. Aldous Huxley’s 1932 novel *Brave New World* similarly features a society where reproduction takes place through artificial wombs, with dystopian outcomes as people are genetically engineered, children are indoctrinated and organised into a class hierarchy, and the concept of the family no longer exists.<sup>4</sup>

The first baby conceived through in-vitro fertilisation (IVF), Louise Brown, was born in 1977, and in the following decades, milestones in the development of reproductive technologies included a significant increase in the number of babies conceived through IVF and the introduction of preimplantation genetic diagnosis (PGD) to identify sex-linked medical conditions.<sup>5</sup> Kieran Tranter highlights that IVF was initially viewed as opening the floodgates to cloning and ectogestation, with repeated references made to the ‘dystopian vision of mechanised, mindless uniformity’ in *Brave New World* as the inevitable consequence of IVF.<sup>6</sup> Despite its initial ethical controversy, IVF (and PGD) is now a common treatment for infertility worldwide, with millions of babies born from this technology.<sup>7</sup> *Gattaca* was released at a time when the development of such technologies was no longer just part of the futuristic imaginary, but ectogestation could realistically be invented and adopted as a common treatment. In 1992, just a few years prior to the film’s release, a gynaecologist at Tokyo University announced that they had successfully gestated a foetal goat in an artificial womb for 17 days.<sup>8</sup> In 2017, scientists at the Children’s Hospital of Philadelphia successfully gestated foetal lambs in an artificial womb system named the ‘Biobag’, and researchers from the Netherlands are now developing an artificial womb system for premature babies.<sup>9</sup>

That *Gattaca* reflected—and fuelled—anxieties over the potential ramifications of these technologies is evident in commentaries on the film’s content. In 2013, Scientific American published a blog titled ‘Are We Too Close to Making *Gattaca* a Reality?’, which suggests that, now similar technological advancements are underway, our society could become a ‘proto-*Gattaca*’ with PGD to be performed on every embryo.<sup>10</sup> Commentary on the film from March 2022 highlights similar concerns that *Gattaca* might bear resemblance to today’s society with the availability of PGD and the development of CRISPR (clustered regularly interspaced short palindromic repeats) gene editing technology.<sup>11</sup> Just as Tranter identified the ‘almost mandatory’ referencing to *Brave New World* in publishing on IVF, it is not difficult to find *Gattaca* name-checked in news articles and blogs on artificial wombs, CRISPR, and related technologies.<sup>12</sup> Of course, there are important ethical issues to consider in the use of gene editing and screening technologies.<sup>13</sup> The concerns raised by disability rights scholars in relation to the routine use of prenatal diagnosis to identify foetal impairments during pregnancy as having eugenicist implications can also be applied to

<sup>1</sup> Firestone, *The Dialectic of Sex*.

<sup>2</sup> Niccol, *Gattaca*.

<sup>3</sup> George, “Of Woman Born,” 178.

<sup>4</sup> Huxley, *Brave New World*.

<sup>5</sup> Wang, “In Vitro Fertilization.”

<sup>6</sup> Tranter, “The Speculative Jurisdiction,” 826–828.

<sup>7</sup> Biggers, “IVF and Embryo Transfer.”

<sup>8</sup> Hadfield, “Rubber Womb.”

<sup>9</sup> Partridge, “Premature Lamb”; Perinatal Life Support, “Background.”

<sup>10</sup> Jabr, “Too Close.”

<sup>11</sup> Yarlagadda, “The Scariest Sci-Fi Movie.”

<sup>12</sup> Tranter, “The Speculative Jurisdiction,” 827. For examples, see Robertson, “Feminists, Get Ready”; Allyse, “You Can’t Predict Destiny”; Kalfrin, “Revisiting Andrew Niccol’s *Gattaca*”; Regalado, “The World’s First”; Hart, “20 Years Later.”

<sup>13</sup> On the ethics of genetic screening/editing, CRISPR, and human enhancement technology, see Pattinson, *Influencing Traits*; Greely, *CRISPR People*; Kirksey, *The Mutant Project*.

the use of PGD.<sup>14</sup> References to the fact that CRISPR has been used, albeit illegally, on embryos and that Californian genetic testing company 23andMe patented a method in 2013 for determining the traits (including eye colour and height) that a hypothetical child would inherit are often raised in connection with *Gattaca*.<sup>15</sup> However, the researcher who used CRISPR to alter the genomes of three embryos to make them HIV-resistant was sentenced to three years in prison, and 23andMe has not yet offered this as a service (and biomedical researchers are sceptical as to whether predicting a hypothetical child's genome is even scientifically possible).<sup>16</sup> The fears shown by *Gattaca* and *Brave New World* go well beyond what is currently realistic but respond to conservative anxieties over existing access to reproductive health care.

Dena S. Davis identifies the issues with relying on science fiction dystopias in ethical discussions around advancing medical technologies, as these developments are painted in a 'terrible light'.<sup>17</sup> Building on this, Evie Kendal argues that references to science fiction works such as *Gattaca* in these discussions operate as a fear tactic.<sup>18</sup> *Gattaca* (and mainstream commentary on the film) suggests that the development of these technologies will inevitably lead to a society that is stratified by genetic traits; it is not a critique of how technology *can be used* to eugenicist ends but instead infers that the very existence of this technology will lead to dystopia. David A. Kirby gives *Gattaca* a more generous reading, arguing that the film outlined the ethical issues with the abuse of genetic technologies rather than blaming the technology itself.<sup>19</sup> However, the continued reference to the film (and other works such as *Brave New World*) in advancing socially conservative viewpoints on reproductive technologies undermines this reading. Either way, the potential of reproductive technologies in the real world (both in terms of what is scientifically or socio-politically possible and the outcomes for women and people capable of becoming pregnant) is misrepresented or glossed over.

### **Women and Pregnancy**

In the 1970s, Joanna Russ wrote that there were hardly any women in science fiction, only images of women; that is to say, portrayals of women as seen by men.<sup>20</sup> Russ observed the striking failure of these stories to acknowledge issues such as child-rearing arrangements, with 'the women who appear in these stories are either young and childless or middle-aged, with their children safely grown up'.<sup>21</sup> As Tranter highlights, the men in these stories can travel the stars, provided that the conservative orientation of the universe and 'familiar binaries of white masculine hetero-normativity – of man/women, white/black, good/bad, human/alien, nature/culture, liberty/oppression, market/state control, heterosexual/homosexual' remain intact.<sup>22</sup> Within this orientation, women are either hidden or function to reinforce rigid gendered stereotypes. Thus, when looking at the portrayal of pregnancy in mainstream science fiction through the lens of this socially conservative agenda, a number of tropes become apparent: pregnancy is biological horror, or it is reproductive destiny.

Graphic and traumatic depictions of pregnancy are relatively common in mainstream science fiction, for example, the 'chestbusters' in the *Alien* franchise, which are implanted into a host for gestation and are 'born' by violently erupting from the host's body.<sup>23</sup> Kirby argues that the historical censorship of pregnancy in cinematic stories demonstrated that 'pregnancy and childbirth should be celebrated but not seen', in part due to the idea that reproduction was a disturbing biological process.<sup>24</sup> This remains true of more recent science fiction, except that the perceived 'horrific biological reality of pregnancy' is now depicted on screen.<sup>25</sup> The monstrosity of pregnancy has also been considered by Barbara Creed in the context of horror movies, arguing that 'when woman is represented as monstrous it is almost always in relation to her mothering and reproductive functions'.<sup>26</sup> The monstrosity of *Alien* is in the horror of childbirth. However, the 'chestbusters' also choose men as their hosts, adding an additional dimension to this narrative as men's bodies are invaded and brutalised.<sup>27</sup> What is so horrific in these scenes is the unnaturalness of men gestating. Creed argues that when 'male bodies become grotesque, they tend to take on characteristics associated with female bodies', and in *Alien*, it is that they are capable of being penetrated and fertilised.<sup>28</sup> The

<sup>14</sup> Asch, "Prenatal Diagnosis."

<sup>15</sup> For example, see Kalfrin, "Revisiting Andrew Niccol's *Gattaca*"; Regalado, "The World's First"; Hart, "20 Years Later."

<sup>16</sup> Mallapaty, "How to Protect"; Allyse, "You Can't Predict Destiny."

<sup>17</sup> Davis, "From YUCK to WOW," 148.

<sup>18</sup> Kendal, "Utopian Visions," 95.

<sup>19</sup> Kirby, "The New Eugenics," 211–212.

<sup>20</sup> Russ, "The Image of Women," 210; Lefanu, *In the Chinks*, 14.

<sup>21</sup> Russ, "The Image of Women," 206.

<sup>22</sup> Tranter, "The Speculative Jurisdiction," 836.

<sup>23</sup> Scott, *Alien*; Cameron, *Aliens*; Fincher, *Alien 3*; Jeunet, *Alien Resurrection*; Scott, *Prometheus*; Scott, *Alien: Covenant*.

<sup>24</sup> Kirby, "Regulating Cinematic Stories," 451, 459.

<sup>25</sup> Kirby, "Regulating Cinematic Stories," 455.

<sup>26</sup> Creed, *Monstrous-Feminine*, 7.

<sup>27</sup> Popper, "Alien: Covenant Returns."

<sup>28</sup> Creed, *Monstrous-Feminine*, 19.

embryos are implanted into the human hosts by the ‘facehuggers’—a parasitic lifeform that attaches itself to the victim’s head and forcefully inserts the embryo down their throat.<sup>29</sup> The rape and resulting gestation portrayed in the *Alien* franchise are horrors that only women usually have to experience, thus, adding to the grotesque nature of pregnancy as depicted here.

One of the most common pregnancy tropes in mainstream science fiction is that of the non-consensual alien pregnancy.<sup>30</sup> The *Alien* franchise represents perhaps the most extreme version of this narrative, as the host will die upon birth, whereas other versions of this trope reinforce gendered stereotypes around pregnancy and motherhood and thus can reinforce either the pregnancy-as-horror or pregnancy-as-destiny orientations. In these narratives, a woman is impregnated (sexually or asexually) without her consent with an alien foetus. Usually, the pregnancy will advance abnormally quickly—once again avoiding the reality of gestation—and the pregnant woman might begin to develop strange or alien-like behaviours as a side effect. Abortion is not an option, either because of the risks posed by the alien foetus or because the pregnant woman begins to develop maternal feelings towards it. Sara Hosey argues that alien insemination narratives ‘shore up the “motherhood mandate” or the insistence that reproduction and motherhood are always a woman’s primary imperative’ as the interests of the pregnant character are, one way or another, rendered secondary to those of the alien foetus.<sup>31</sup> Unwanted, non-consensual pregnancy is presented as something that these women must simply accept is happening to them; pregnancy is never an affirmative choice in these stories. These narratives are rarely told from the perspective of the experiences of the pregnant woman.

Hosey discusses at length the alien pregnancy narrative in *V* and *V: The Final Battle*, in which Robin, a 17-year-old, is inseminated with and gestates human-alien hybrid twins.<sup>32</sup> In keeping with the trope, her pregnancy progresses at an accelerated pace; throughout the pregnancy, she develops alien-like behaviours; and she is denied an abortion as the foetuses would fight back and likely kill her. Hosey highlights that the mystery surrounding this pregnancy takes the narrative focus away from Robin so that the pregnant woman becomes marginalised ‘in a narrative that is ostensibly about her’.<sup>33</sup> Upon birth, the visibly alien-looking child dies, and the surviving human-looking child, Elizabeth, survives but ages quickly to become 18 years old in a matter of hours.<sup>34</sup> As Elizabeth goes on to save the world in *V: The Final Battle*, Robin’s suffering through the unwanted pregnancy, side effects and childbirth is therefore justified as part of something more important than herself.<sup>35</sup> This feeds into anti-abortion tropes, which will be discussed in the next section.

While *V* follows the pregnancy-as-horror script, non-consensual alien pregnancy narratives are not always portrayed as traumatic. Stories where the pregnant woman becomes accepting of the foetus reinforce the idea of women as passive in the face of their reproductive destiny. One example of a pregnancy-as-destiny storyline is the episode of *Star Trek: The Next Generation* titled ‘The Child’, in which Deanna Troi becomes pregnant by a (non-threatening) alien lifeform.<sup>36</sup> The entire pregnancy and childbirth take place in just one day, and by evening, the child has already grown up. Early into the episode, Deanna discusses what to do about the pregnancy with the rest of the core crew, who are worried about the potential threat the alien lifeform could pose. One member strongly suggests that she have an abortion, but despite becoming pregnant without her consent, Deanna insists that she will continue the pregnancy to term. Deanna quickly develops maternal feelings towards the foetus and, in one scene, gazes lovingly at the foetal heartbeat in an ultrasound scan. At the end of the episode, the alien lifeform leaves the Enterprise, and the physical human-like form of the child dies. Yet, Deanna’s grief over the loss of what she now sees as her own child is short-lived, and the Chief Medical Officer declares that there is no evidence that Deanna was ever pregnant. The impacts of non-consensual pregnancy, of gestation and childbirth, of grief following the loss of the child are, therefore, quickly erased. Unlike in *V* and *V: The Final Battle*, Deanna is shown as making her own choices in relation to the pregnancy—but they are the choices of the ‘good’ maternal figure, acting selflessly in the best interests of the foetus.

The problematic gendered nature of this storyline can be further highlighted by considering an episode in a later series of the *Star Trek* franchise concerning a non-consensual alien pregnancy faced by a human man. In the episode ‘Unexpected’, Trip Tucker becomes pregnant after visiting an alien ship.<sup>37</sup> Doctor Phlox emphasises that the embryo is not genetically linked to him, as he is simply a host. Trip states that there must be a way to remove the embryo without hurting it—abortion is not presented as an option here, either, but unlike Deanna Troi in the earlier episode, Trip feels no responsibility to continue the pregnancy until birth. The pregnancy-as-destiny script is flipped, as he is not attached (biologically or emotionally) to the

<sup>29</sup> Scott, *Alien*; Cameron, *Aliens*; Fincher, *Alien 3*.

<sup>30</sup> For discussion on the use of ‘mystical pregnancy’ narratives in horror as well as science fiction, see Sisson, “From Humour to Horror.”

<sup>31</sup> Hosey, “Keeping Women,” 465.

<sup>32</sup> Hosey, “Keeping Women”; Johnson, *V: The Original Miniseries*; Johnson, *V: The Final Battle*.

<sup>33</sup> Hosey, “Keeping Women,” 467.

<sup>34</sup> Johnson, “Part Three.”

<sup>35</sup> Hosey, “Keeping Women,” 464–465.

<sup>36</sup> Roddenberry, “The Child.”

<sup>37</sup> Vejar, “Unexpected.”

foetus. Fortunately for him, there is a method to safely transfer the embryo to another host without causing harm to either party, an outcome that is usually unavailable in alien pregnancy narratives concerning women. Throughout the episode, Trip's pregnancy is made into a joke by the fact that he becomes irritable, paranoid and worried about children's safety aboard the *Enterprise*, as he has become affected by hormones. The male pregnancy is presented as comedy, even though the insemination was non-consensual, making light of the bodily invasion that is ordinarily faced by women. Further, the pregnant man is not ascribed the same responsibilities over the alien foetus as pregnant women in these narratives usually are. Thus, rather than challenging sex and gender roles around reproduction, these stories often reinforce them. This again speaks to socially conservative anxieties; for example, an episode of *Doctor Who* in 2018 featuring a humanoid alien man who was pregnant received backlash as being transgender propaganda.<sup>38</sup> In mainstream science fiction, pregnancy storylines are often, therefore, introduced to support the status quo in relation to gendered norms, firmly fixing the place of male/female binary reproduction even within a utopian future setting.

### *Anti-Abortion Themes*

As the representation of pregnancy in mainstream science fiction entrenches gender norms around reproduction and responds to socially conservative anxieties, anti-abortion imagery can be found across many science fiction works. Gretchen Sisson argues that science fiction as a genre is particularly well-placed to 'envision what abortion might be, without the constraints of modern technology and medicine'.<sup>39</sup> However, in a lot of mainstream science fiction, abortion is either ignored or portrayed problematically, feeding into anti-abortion tropes. This is sometimes subtle, for example, when Deanna becomes enchanted by the foetal heartbeat during an ultrasound scan in 'The Child'.<sup>40</sup> In the US, in particular, the foetal heartbeat is a central focus of anti-abortion narratives, used as an emotive tool and a coercive one; since the 1990s, a number of US states have passed laws requiring pregnant people to undergo an ultrasound scan before an abortion.<sup>41</sup> *Gattaca* can also be read as a subtly anti-abortion narrative, as the viewer is made to feel sympathy for the 'in-Valid' who, based on Gattacan society's eugenicist approach to reproduction, ought not to have been gestated and birthed.<sup>42</sup> That the viewer is on the side of the group that ought not to exist, which includes the main protagonist Vincent, whose parents regret his birth, feeds into arguments against abortion around the foetus' interests in its potential or future life.

More obviously feeding into anti-abortion tropes is the Star Child, the floating foetus isolated in space, at the end of *2001: A Space Odyssey*.<sup>43</sup> Rosalind Petchesky critiqued the 'symbolic import' of the free-floating foetus visual in *2001*, where the foetus becomes an autonomous space hero disconnected from any pregnant person, who is represented by empty space.<sup>44</sup> Using images of isolated fetuses set against a blank space is one of the key tactics of the anti-abortion movement, to present the foetus as a living 'person' separate from the pregnant person doing the gestating. In addition to reinforcing this visual of the foetus as an autonomous person, Palmer Rampell highlights that the Star Child represents the rebirth and evolution of humanity; within this narrative, the foetus—and, thus, abortion—becomes a 'metaphysical, cosmic issue'.<sup>45</sup> This is also true of non-consensual alien pregnancy narratives in which abortion is not an option, as the preservation of alien life on a grander scale becomes more important than the bodily autonomy of the person forced to gestate and give birth.

In these non-consensual alien pregnancy narratives, abortion is also presented as a threat to the pregnant person as well as the foetus. This reflects the shift in anti-abortion talking points towards 'women protective' narratives to counter pro-abortion arguments with claims that abortion is harmful to the wellbeing of pregnant women.<sup>46</sup> In *V: The Final Battle*, Robin attempts to obtain an abortion, but the doctor cannot remove the foetuses, or they would kill her first.<sup>47</sup> Hosey highlights that the foetuses are ascribed agency here, as they could fight back against an abortion.<sup>48</sup> Further, this is a reversal of the argument in favour of abortion, where it is necessary to save the life of the pregnant person, where it is the abortion—and not the forced continuation of pregnancy—that poses the threat to Robin.<sup>49</sup> In addition, as the pregnancy is at an advanced stage at the point where the foetuses are shown as agentic, this episode is reflective of the controversy of abortions in the later stages of pregnancy in the

<sup>38</sup> Perrott, "The Tsuranga Conundrum"; Duffy, "Doctor Who."

<sup>39</sup> Sisson, "From Humour to Horror," 248.

<sup>40</sup> Roddenberry, "The Child."

<sup>41</sup> Guttmacher Institute, "Requirements."

<sup>42</sup> Niccol, *Gattaca*.

<sup>43</sup> Kubrick, 2001.

<sup>44</sup> Petchesky, "Fetal Images," 268, 270.

<sup>45</sup> Rampell, "The Science Fiction," 244.

<sup>46</sup> See Greenhouse, "Casey and the Clinic Closings."

<sup>47</sup> Johnson, "Part One."

<sup>48</sup> Hosey, "Keeping Women," 468.

<sup>49</sup> Hosey, "Keeping Women," 468.

US.<sup>50</sup> There are similar issues with abortion being presented as a threat to both pregnant women and foetus in other science fiction series. In ‘The Child’, a male member of the crew insists that Deanna should have an abortion despite her stating that she wanted to continue the pregnancy, thus presenting the option of abortion as coercion.<sup>51</sup> Forced (or near-forced) abortions also take place in episodes of *Farscape* and *Battlestar Galactica*.<sup>52</sup> Within these representations of abortion as harmful and coercive is the implication that abortion is something that the pregnant person would (or should) never choose for themselves. A notable exception comes from the *Alien* franchise. In *Prometheus*, released in 2012, Elizabeth Shaw becomes pregnant with a Trilobite after having consensual sex with an unknowingly infected member of her expedition.<sup>53</sup> Elizabeth’s pregnancy is horrifying, and she hacks an automated medical machine, initially only programmed for male bodies, and performs abdominal surgery on herself to remove the creature. Hosey argues that the typical tropes of the passive woman facing a horrifying alien pregnancy with no alternative options are rejected here, as we see ‘an active woman manipulating technology and forcing it to accommodate her needs’.<sup>54</sup> Further, that Elizabeth is able to obtain abortion treatment and survive is significant in the face of coercive or harmful abortion narratives in other science fiction works. However, *Prometheus* cannot be viewed as a positive depiction of abortion; the removal of the alien creature from Elizabeth’s body is never referred to as an abortion, and there are still some anti-abortion themes present in this scene. The alien fights back, which again symbolises an agentic foetus fighting for survival, and the surgery scene is bloody and brutal as the alien is pulled out of Elizabeth’s stomach by robotic forceps. This graphic depiction of an abortion conjures up visions of the dangerous backstreet abortions with abortion providers as butchers, again feeding into anti-abortion narratives as the abortion is not shown as a safe and easy medical procedure but as a horrifying event; again, shown as something the pregnant person would never choose to go through. This is reinforced by the fact that the medical machine is not programmed for female bodies and does not have the programming to perform abortions, further highlighting that abortion is not accessible or viewed as a necessary medical treatment in this futuristic setting.

### Science Fiction, Law, and Feminism

Following from this, I argue that reproductive technologies, pregnancy and abortion are portrayed in mainstream science fiction in ways that reflect and reinforce socially conservative viewpoints around gender and reproduction. As already highlighted, *Gattaca* was released around a key point in time for the development of reproductive technologies. Likewise, many of the works discussed above featuring problematic abortion and pregnancy narratives were released in the 1970s, 1980s, and 1990s when feminist movements for reproductive rights were making significant gains, such as the legalisation of abortion in Britain in 1967 and the US in 1973.<sup>55</sup> Hosey highlights that alien insemination narratives became prominent in the 1980s and continue up to the present day, undermining reproductive autonomy on-screen throughout a period where feminist movements have increasingly demanded reproductive rights.<sup>56</sup> Rampell highlights how, following the legalisation of abortion by the US Supreme Court in *Roe v. Wade*, Phillip Dick increasingly adopted anti-abortion themes in his novels.<sup>57</sup> More overtly, the Star Child from *2001* was adopted as a poster image by the anti-abortion movement.<sup>58</sup> As ‘no image dangles in a cultural void’, these problematic narratives, created in response to technological and legal changes, have the potential to influence socio-cultural attitudes towards these issues.<sup>59</sup> In doing so, science fiction works can influence technological and legal changes; as Mitchell Travis identifies, there is a reciprocal relationship between science fiction and law.<sup>60</sup>

While a direct relationship cannot be measured, science fiction is clearly significant in politico-legal discussions around these issues; as identified above, repeated references to *Gattaca* and *Brave New World* can easily be found in debates around ectogestation, gene screening and human enhancement technology. Tranter and Kendal both identify the prominence of references to science fiction works made by journalists and lawyers in relation to reproductive and biotechnologies.<sup>61</sup> Tranter identifies that it is the socially conservative aspects of dystopian science fiction that make these works attractive to lawyers; the threat of technologies generates the need for law as an intervention.<sup>62</sup> For example, in relation to the advent of IVF, the law came in to prohibit the potential for artificial reproduction to develop in the same way as was speculated in mainstream science

<sup>50</sup> Eunjung Cha, “Tough Questions.”

<sup>51</sup> Roddenberry, “The Child.”

<sup>52</sup> Andrikidis, “Prayer”; Hardy, “Epiphanies.”

<sup>53</sup> Scott, *Prometheus*.

<sup>54</sup> Hosey, “Keeping Women,” 477.

<sup>55</sup> *Abortion Act 1967* (United Kingdom); *Roe v. Wade*, 410 U.S. 113 (1973).

<sup>56</sup> Hosey, “Keeping Women,” 464.

<sup>57</sup> Rampell, “The Science Fiction.”

<sup>58</sup> Sofia, “Exterminating Fetuses.”

<sup>59</sup> Petchesky, “Fetal Images,” 287.

<sup>60</sup> Travis, “Making Space,” 247.

<sup>61</sup> Tranter, “The Speculative Jurisdiction,” 826–829; Kendal, “Utopian Visions,” 92–95.

<sup>62</sup> Tranter, “The Speculative Jurisdiction,” 836–837.

fiction.<sup>63</sup> Further, Kendal highlights that science fiction works such as *Gattaca* may be one of the few ‘frames of reference that many people have for considering the social and political implications of genetic technology’.<sup>64</sup> Mainstream science fiction is, therefore, of significance in debates around reproduction through informing socio-cultural attitudes and influencing legal and policy responses to reproductive technologies, pregnancy and abortion. At present, the absence of positive—or at least accurate—pregnancy and abortion narratives in mainstream science fiction available in the US is of concerning significance in light of the chipping away of access to abortion in the decades following *Roe v. Wade*.<sup>65</sup> In June 2022, the US Supreme Court handed down its decision in *Dobbs v. Jackson*, overturning the constitutional right to abortion established in *Roe v. Wade* to allow states to prohibit abortion in the first trimester.<sup>66</sup> Further, in the context of increasingly prominent anti-transgender lawmaking in the US and the controversy of trans rights in the United Kingdom, that pregnancy narratives concerning men are portrayed as comedy or horror reinforces an opposition to recognising pregnancy in trans men and supporting advancements such as womb transplants, which could enable pregnancies in people who are not cis women.<sup>67</sup> The connection between science fiction and law is, therefore, such that socially conservative works can support and propel this politico-legal agenda.

However, if science fiction can influence law, policy and socio-cultural attitudes towards reproduction, then this connection need not axiomatically be a cause for concern. Tranter highlights the potential for science fiction to engage in more critical narrations around law and technology.<sup>68</sup> In relation to reproductive technologies, pregnancy, and abortion, feminist science fiction is particularly important for bringing this critical edge. The potential for feminist science fiction has not gone unnoticed by other scholars; Sarah Lefanu wrote in the 1980s how the stock conventions of science fiction, of alternative worlds, can be used as powerful ways of exploring the social construction of ‘woman’ and visions of feminist utopia.<sup>69</sup> Octavia Butler, most notably in *Lilith’s Brood* (formerly published as the *Xenogenesis* trilogy) and the short story *Bloodchild*, explores themes including human and alien survival, technology, reproduction, colonialism, social hierarchy, gender roles and motherhood, centring experiences of Black maternity in particular.<sup>70</sup> Within feminist science fiction narratives, it becomes possible to critique our current gendered, racialised and class-based structures and imagine alternative futures. The genre provides an avenue for reconceptualising what our society and its structures and institutions, including law, should—or could—look like, providing the opportunity for a radical rethinking of how reproduction takes place.

In this respect, feminist science fiction should be seen as of fundamental importance within feminist legal theory. Patricia Melzer argues that feminist science fiction creates the blueprints for feminist theory: ‘science fiction engages with feminist thought in a way that enables us to understand oppression and to envision resistance beyond the limits set by much of feminist discourse’.<sup>71</sup> Melzer looks to the work of Donna Haraway, who is perhaps one of the most prominent feminist scholars to recognise the relationship between science fiction and feminism, most notably in her *Cyborg Manifesto*.<sup>72</sup> Haraway argues elsewhere that feminist science fiction (or speculative feminism) ‘is a method of tracing, of following a thread in the dark, in a dangerous true tale of adventure, where who lives and who dies and how might become clearer for the cultivating of multispecies justice’.<sup>73</sup> In this regard, Haraway views science fiction as political theory; it is not only a method of investigating feminist thought but also a method of producing it.<sup>74</sup> Building on this trajectory of scholarship, I argue that science fiction provides the tools to imagine socio-legal and economic contexts which could be supportive of feminist futures and should, therefore, be understood as significant to feminist legal theory.

Feminist science fiction creates prototype socio-legal conditions for exploring key social justice and feminist issues such as reproduction. Science fiction can function as a case study in which feminist theory plays out, exploring the tensions, inconsistencies, and limitations of our current imagination.<sup>75</sup> Through what Haraway refers to as ‘worlding’, feminist science fiction authors generate new possibilities for how we might flourish.<sup>76</sup> This exercise of worlding provides important lessons for

<sup>63</sup> Tranter, “The Speculative Jurisdiction,” 838.

<sup>64</sup> Kendal, “Utopian Visions,” 101.

<sup>65</sup> Goodwin, *Policing the Womb*, 46–77.

<sup>66</sup> *Dobbs v. Jackson*, 57 U.S. \_\_ (2022).

<sup>67</sup> On the barriers faced by trans people around pregnancy, see Love, “Trans Pregnancy.”

<sup>68</sup> Tranter, “The Speculative Jurisdiction,” 842.

<sup>69</sup> Lefanu, *In the Chinks*, 5, 9.

<sup>70</sup> Butler, *Lilith’s Brood*; Butler, *Bloodchild*. For commentary on the themes explored in these works, see, for example, Rampell, “The Science Fiction,” 240–241; Mann, “Pessimistic Futurism”; Lillvis, “Mama’s Baby”; Tranter, “The Speculative Jurisdiction,” 839–842; Federmyer, “Octavia Butler’s Maternal Cyborgs”; Helford, “Would You Really.”

<sup>71</sup> Melzer, *Alien Constructions*, 2.

<sup>72</sup> Melzer, *Alien Constructions*, 20–23; Haraway, “A Manifesto for Cyborgs.”

<sup>73</sup> Haraway, *Staying with the Trouble*, 3.

<sup>74</sup> Haraway, *How Like a Leaf*, 120; Melzer, *Alien Constructions*, 10.

<sup>75</sup> Melzer, *Alien Constructions*, 11.

<sup>76</sup> Haraway, *Staying with The Trouble*, Ch. 6.

law; Ruth Houghton and Aoife O’Donoghue have considered the significance of utopian science fiction in relation to feminist constitutionalism, which provided examples of alternatives to our current societal structures, institutions and communities which might inform how to build a feminist future.<sup>77</sup> In exploring reproductive technologies, pregnancy and abortion, feminist science fiction can similarly challenge our current legal and policy responses and draw out the possibilities of feminist reproductive futures without those limitations. However, feminist science fiction as prototype law need not be a utopian vision, as feminist dystopias function as an important commentary on current legal responses to gender-based issues. Travis argues that in pointing to its deficits, science fiction acts as a critical commentary on law and society and, in doing so, ‘allows for a space where alternate social and legal conditions can be considered’.<sup>78</sup> Feminist science fiction can imagine these alternate conditions through dystopia, highlighting the need for alternative futures in light of the likelihood of continuing conservative resistance to abortion and reproductive technologies. In relation to Afrofuturism, a speculative fiction project exploring ‘the capacity to exceed the historical constraints of blackness’, Justin Louis Mann identifies the use of ‘pessimistic futurism’ where writers such as Octavia Butler think about historical racialised oppressions and potential futures beyond this while maintaining doubts as to these future possibilities.<sup>79</sup> Feminist science fiction also often adopts a pessimistic edge and can serve as a cautionary tale for how we might fail to overcome socio-legal frameworks that have historically marginalised women and people capable of becoming pregnant. In the next section, I will introduce the Reproductive Justice framework to explore this in relation to the work of Octavia Butler and Laura Lam.

### Reproductive Justice in Feminist Science Fiction

Reproductive Justice has four interrelated tenets: ‘to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities’.<sup>80</sup> This framework was developed by Women of Colour in the US as an alternative to choice-based narratives that excluded the broader reproductive concerns of and barriers faced by women marginalised on the basis of race, class and disability as well as trans, non-binary, and gender expansive people.<sup>81</sup> Reproductive Justice is both a goal and a framework of critical analysis, which will be employed here to interrogate the prototype socio-legal contexts adopted in science fiction. Mainstream science fiction works such as those mentioned throughout this article so far usually fail on all four tenets of the Reproductive Justice framework. Through non-consensual alien pregnancy narratives, women’s bodily autonomy is violated; the decision to have or not have children is removed, where abortion is either prohibited or offered coercively; and as child rearing rarely features, we do not see how parenting takes place. Further, the specific injustices faced by marginalised groups are hidden in narratives such as *Gattaca*, where discrimination is primarily faced by the genetically ‘in-Valid’ and not by people denied the ability to have children or make reproductive decisions for themselves.

In contrast, feminist science fiction, particularly that of the dystopic nature, portrays reproductive injustice deliberately, with a fictional or future society failing on those four tenets to highlight how those failures are or have historically been present in our society. In *Lilith’s Brood* and the short story *Bloodchild*, Octavia Butler employed non-consensual alien pregnancy narratives—but in so doing, highlights issues of reproductive coercion, setting these works apart from the pregnancy-as-horror or pregnancy-as-destiny configurations explored above.<sup>82</sup> In the first book of *Lilith’s Brood*, Lilith, a Black woman who is one of the few remaining humans following a nuclear war, is held captive by the Oankali, a race of humanoid aliens.<sup>83</sup> Lilith is later impregnated with the first human-Oankali hybrid. Lilith’s detention and later pregnancy is framed in the ‘violent history of slavery and incarceration that saturates black experience in the US’ and the reproductive violence faced by Black women within that history.<sup>84</sup> In *Bloodchild*, it is a human man, Gan, who is chosen to carry the eggs of the insect-like Tlic. Unlike the human male pregnancy narratives discussed above, Butler does not use the gender reversal for shock or comedy value but to complicate human gendered power relations and explore the issues of consent, coercion, and a lack of reproductive choices in an alien colonial setting.<sup>85</sup> These issues have been highlighted by Reproductive Justice activists as injustices historically or currently experienced by Black women and people from other marginalised groups. Thus, although Butler adopts a number of the tropes critiqued above, her science fiction is a conscious critique of reproductive injustice, centring the lived experiences of women and pregnant people, and, therefore, serves as an important contrast with mainstream science fiction works which furtively

<sup>77</sup> Houghton, “Ourworld.”

<sup>78</sup> Travis, “Making Space,” 252, 257.

<sup>79</sup> Mann, “Pessimistic Futurism,” 63.

<sup>80</sup> SisterSong, “What is Reproductive Justice.”

<sup>81</sup> Ross, Reproductive Justice, 9.

<sup>82</sup> Butler, *Lilith’s Brood*; Butler, *Bloodchild*.

<sup>83</sup> Butler, *Lilith’s Brood*.

<sup>84</sup> Mann, “Pessimistic Futurism,” 65.

<sup>85</sup> Helford, “Would You Really,” 264.

reproduce these injustices. It is this conscious engagement with current and historical reproductive oppression that makes feminist science fiction important for feminist legal theory.

Laura Lam's recent novel *Goldilocks* responds to the current US politico-legal context around reproduction.<sup>86</sup> The science fiction works critiqued above responded to advances in reproductive rights and technologies, and feminist science fiction writers have responded to topical reproductive injustices; *Goldilocks*, published in 2020, is a response to the current threat to abortion access and other reproductive and gender-based rights in the US. The novel is set at a future point where the Earth is becoming uninhabitable due to climate change, and the main characters—five women—are travelling through space to the planet Cavendish to terraform it to support human life. Within this context, the US Government has been busy curtailing reproductive rights. *Roe v. Wade* had been overturned, with abortion prohibited as part of a strict population control regime in light of Earth's diminishing resources. After the birth of their first child, all women must be fitted with an IUD, and there are taxes on any additional children. Women have been pushed out of the workforce by conservative ideas of work and family; the five women travelling through outer space stole their ship from the five men that were to be going in their place. In relation to climate change, the novel highlights the extreme economic disparities between the wealthy and the world's increasing number of climate refugees. The dystopia that Lam presents is not one where a significant event—a drastic political change, a nuclear war, an apocalypse—has led to this future; rather, the future presented in *Goldilocks* is simply a continuation of what we already have now. This is the linear progression, if nothing changes, of our current approach to climate change and the way reproductive rights are already being curtailed in the US.

The novel is thus a critical intervention highlighting the way the current US socio-legal system already perpetuates these reproductive (and other) injustices. The novel foreshadowed the overturning of *Roe v. Wade*, which was identified as a likely consequence of Donald Trump's presidency when he was elected in 2016.<sup>87</sup> Following the US Supreme Court's aforementioned decision in *Dobbs v. Jackson*, this has gone from far-off dystopian hypothetical to horrific reality. Lam explores the implications of this in a chapter set before their journey into space, in which one of the five women, Naomi, is faced with an unwanted pregnancy.<sup>88</sup> Valerie, a billionaire and maternal figure to Naomi, is easily able to find a doctor willing to perform an illegal abortion. Though she has a miscarriage before the abortion can take place, Naomi keeps the planned abortion a secret from her husband; secrecy around abortion is a common experience of people living in countries where abortion is criminalised.<sup>89</sup> Naomi does, however, have the connections and wealth to be at minimal risk of unsafe abortion or criminal investigation.

In the aftermath of *Dobbs v. Jackson* (and as has already been the case in states where abortion services have already become increasingly hard to access), pregnant people without these resources are more likely to have unsafe abortions, and pregnant people also marginalised along the lines of race and class are disproportionately targeted by punitive measures.<sup>90</sup> These limitations also apply to the novel's exploration of contraceptive coercion with the mandatory IUD and the subsequent child tax. Contraceptive coercion and socio-economic inequities are both key issues that have been raised by Reproductive Justice scholars, as Black and Indigenous women have historically been targeted by contraceptive campaigns.<sup>91</sup> While the novel does touch upon the class inequalities of the child tax, the racialised inequalities of reproductive injustice are not explored. Reproductive Justice was developed as an alternative to the reproductive rights framing, to instead emphasise and centre the experiences and barriers faced by already marginalised groups, particularly Women of Colour. Reproductive Justice scholars and activists have thus critiqued the exclusion of race and class from feminist works concerned with reproductive rights issues. Kimberlé Crenshaw coined the term 'intersectionality' to highlight the interconnectedness of racial and gender-based discriminations, which situate Black women's experiences as unique to both Black men and white women's experiences.<sup>92</sup> Intersectionality as a theory highlights that gender cannot be separated from other characteristics such as race and class; the omission of the intersecting gender, race and class dimensions of reproductive injustice is a key shortcoming of *Goldilocks*, as the novel, therefore, cannot fully explore the impact of restrictive laws around reproduction. However, this is a broader failure of science fiction overall, which is often silent on race and class issues.

This limitation notwithstanding, the novel does present an important commentary on the lack of reproductive choices as a dystopia. This dystopian setting is juxtaposed by Naomi's second experience of pregnancy while onboard the ship. Naomi, believing she was infertile following her previous miscarriage, is faced with a second unexpected pregnancy. In contrast with the first, which was met with her fear over the future of the Earth, her own career and how her husband would feel, Naomi has

<sup>86</sup> Lam, *Goldilocks*.

<sup>87</sup> Goodwin, *Policing the Womb*, 3.

<sup>88</sup> Lam, *Goldilocks*, 185–191.

<sup>89</sup> Hanschmidt, "Abortion Stigma."

<sup>90</sup> Goodwin, *Policing the Womb*, 64–69.

<sup>91</sup> See Roberts, *Killing the Black Body*, 56–103.

<sup>92</sup> Crenshaw, "Demarginalizing."

options available to her this second time. When asked by the ship's doctor if she wants to continue the pregnancy or have an abortion, Naomi simply responds with, 'I'll let you know in a few weeks'.<sup>93</sup> Naomi is eight weeks into the pregnancy at this point. This short line is significant in that gestational time limits for abortion (often set at 12 weeks gestation for abortion on request, for example) mean that most pregnant people are never granted the luxury of taking weeks or even days to think through an abortion decision. There is an expectation that unwanted pregnancies must be met with panic and distress, and it is only in response to this sense of desperation that an abortion becomes morally acceptable.<sup>94</sup> What is more, Naomi is able to make decisions about her pregnancy in a non-judgemental medical setting, free of the shame and stigma that surrounded her decision to have an abortion back on Earth. Against the backdrop of the dystopian US regime, there is this pocket of utopia; removed from the repressive medio-legal context of Earth, Naomi is supported and respected through her exercise of reproductive autonomy. Although Naomi ultimately decides to continue her pregnancy and give birth, *Goldilocks* nonetheless presents us with an alternative vision for access to abortion, a prototype for what abortion care could look like without the injustice of punitive legal restrictions and strict gestational time limits.

The novel also considers reproductive choice in relation to contraception. Researchers have highlighted that, presently, the majority of contraceptive methods are to be used or taken by women. This means that women assume most of the responsibility around avoiding unwanted pregnancy—including the burden of side effects associated with hormonal contraception.<sup>95</sup> It has, therefore, been argued that male hormonal contraception is important for contraceptive justice.<sup>96</sup> In the future presented in *Goldilocks*, male hormonal contraception does exist but again presents an obstacle for Naomi's reproductive autonomy. She discovers that her husband, desiring a child, stopped taking the contraceptive pill without her consent or knowledge, resulting in the first pregnancy.<sup>97</sup> Scholars have highlighted that the practice known as 'stealththing'—the removal of a condom during sex without the other person's knowledge and consent—should be recognised as sexual assault but is not currently criminalised in much of the US.<sup>98</sup> In the *Goldilocks* context, where abortion is illegal, this kind of sexual and reproductive manipulation is a serious issue and highlights the potential harms that may result from the development of male hormonal contraception in patriarchal contexts where women and people capable of becoming pregnant are not granted reproductive autonomy. This aspect of the novel, therefore, highlights, firstly, the potential harms of future contraceptive developments, which law and policy must respond to, and secondly, the existing failure of the US to address similar forms of sexual and reproductive coercion by intimate partners. Now that abortion is being made illegal across much of the US or remains inaccessible or stigmatised elsewhere, a legal response to this issue is all the more pressing.

Some way into the narrative, the four other women discover Valerie's true plan to start humanity anew: thousands of frozen embryos hidden in the ship, to be gestated in artificial wombs or by the women themselves, to form the new population on Cavendish while the rest of Earth's people, a lost cause, are left behind. Unlike in *Brave New World* and *Gattaca*, the development of artificial womb technology itself is not portrayed as part of the dystopia. Rather, it is the misuse of this technology as a form of population control to remake humanity in Valerie's image that is the ethical issue at play. Though in Firestone's view, reproductive technologies could be at the precipice of emancipation, feminist theorists have identified and critiqued the potential for technologies such as artificial wombs to exacerbate existing inequalities and the oppression of people capable of becoming pregnant.<sup>99</sup> As Sophie Lewis highlights, 'capitalist biotech does nothing at all to solve the problem of pregnancy per se because that is not the problem it is addressing'.<sup>100</sup> The novel, by placing reproductive technology in the hands of one extremely wealthy woman while the majority of people are left without resources and decision-making power over their own reproductive capacity, operates as a critique of the inequalities associated with developing this technology in a capitalist reproductive dystopia—and of the injustices that we would likely see with this technology in our current socio-legal context. Feminist science fiction works, such as those considered in this section, provide an analysis of future and current reproductive justice issues, making this genre an important avenue for feminist legal thinking. The recognition of intersecting gender, race and class issues is also fundamental for presenting an alternative to our current legal, political and societal contexts, so looking to Afrofuturist works in conjunction with feminist science fiction would also further support this project. Further, while the focus in this section has been on dystopian feminist science fiction which does not present more promising alternatives to our current societal structures, other works that mirror feminist thinking around relationality and family abolition would also contribute to feminist theorising around reproductive futures. There is much more to be explored in terms of how feminist science fiction can be used to imagine a better future for women and all people.

<sup>93</sup> Lam, *Goldilocks*, 122.

<sup>94</sup> Miller, *Happy Abortions*, 58–59; Jackson, *Regulating Reproduction*, 74–76; Sheldon, *Beyond Control*, 35–38.

<sup>95</sup> Campo-Engelstein, "Contraceptive Justice"; McCudden, "Why Contraception."

<sup>96</sup> Campo-Engelstein, "Contraceptive Justice."

<sup>97</sup> Lam, *Goldilocks*, 221–222.

<sup>98</sup> Blanco, "Sex Trend"; Shapiro, "Yes."

<sup>99</sup> Horn, "Establishing Boundaries."

<sup>100</sup> Lewis, *Full Surrogacy Now*, 4.

## Conclusion

In contrast with the problematic portrayals of reproduction in mainstream science fiction works, feminist science fiction engages critically with issues of reproductive injustice. In these works, reproductive justice remains a far-off fiction, the final frontier of utopian imagination. Yet, by exposing the foreseeable extension of historical and current injustices into our future as a dystopia, feminist science fiction can help us point to alternative possibilities. Just as mainstream science fiction has been influential in ethical and legal debates around reproduction, feminist science fiction is an important critical intervention for engaging with these issues. With some exceptions, *The Handmaid's Tale* as an obvious example, feminist science fiction generally gains less traction in these discussions.<sup>101</sup> However, while feminist works may be less widely influential than mainstream movies, they should nonetheless be seen as an important tool for feminism, and feminist legal theorists should take the opportunity to engage meaningfully with these works. In doing so, we can radically reimagine a reproductive future beyond the current limits of law, society, and technology.

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<sup>101</sup> Atwood, *The Handmaid's Tale*.

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