

Autonomy, Posthuman Care, and Romantic Human-Android Relationships in Cassandra Rose Clarke’s *The Mad Scientist’s Daughter*

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Abstract

This essay looks at the representations of romantic relationships between humans and intelligent androids in Cassandra Rose Clarke’s science fiction novel, The Mad Scientist’s Daughter (2013). Clarke’s novel encourages readers to re-evaluate common fears surrounding human-android interaction. By closely looking at this novel, this essay offers a posthuman care-ethical approach. This essay argues that in depictions of romances between humans and androids, posthuman intimacies can reaffirm a humanity that is shaped by care when attention is given to autonomy. This care ethic suggests a posthumanist vision of humanity that requires trying to understand and be willing to learn more about the feelings and choices of a nonhuman being – even if those feelings and choices are artificially simulated.

Keywords: Artificial intelligence; Androids; Care; Autonomy; Science fiction

Introduction

Oftentimes, human responses towards artificially intelligent androids (hereinafter referred to as androids) tend to reflect concern or distrust more than they reflect love or a willingness to exercise acts of care. This phenomenon is often echoed in many works of science fiction; *Black Mirror* episode “Be Right Back” (2013) and Alex Garland’s film *Ex Machina* (2014) are just two examples. Both works see a romantic relationship (either an overt one or a suggested one) between human and androids, and both narratives ultimately fracture these relationships (specifically, both texts show one partner betraying the other). These resolutions suggest either that androids can never be trusted, or that androids can never provide an emotionally and/or physically fulfilling relationship for a human. While albeit cautious, this skeptical mindset, when applied to androids, can limit human empathy towards them and stall the potential for an opportunity to ponder a crucial question regarding human relationships with them: are there any conditions that could potentially allow for a wider ethical acceptance of seeing romantic human-android relationships as meaningful and intimate relationships?

As many scholars observe, posthumanism needs to give considerable attention to questions surrounding human relationship with technology. In the words of Sümeyra Buran et al., “technology is not just a tool or a set of tools and not just a know-what and know-how, but also our way and being in the world” (Buran et al., 2). In this contemporary era with technology

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quickly developing tangible examples of the posthuman (such as Sophia, an android developed by Hanson Robotics in 2016), readers of science fiction are also now more commonly seeing romantic relationships between humans and artificial partners depicted in the genre. With scientists already starting to create humanoid AI that can display facial expressions to convey basic emotions, humans are reaching closer to the point where they may encounter a wider variety of chances to have a romantic relationship with one. These AI beings are created to be “carers”, of a sort, in how they provide emotional care to a human through an intimate bond (and/or a sexual one). For example, New Jersey based company, True Companion, develops artificial companions (or “sexbots”), and has even offered the idea of customizations that allows buyers to request an artificial companion that resembles a dead loved one (echoing *Black Mirror’s* “Be Right Back”). The rationale behind this decision is that the companion helps the human deal with loneliness. Similarly, as Adrian David Cheok and Emma Yann Zhang state, regarding the human-robot relations, “Our humanistic approach and empathy towards artificial entities, coupled with the innate ‘need to belong’ in interpersonal relationships, indicate a high possibility that people will form emotional attachments and meaningful relationships with artificial companions” (2019, 6). This statement suggests that humans will not have to worry about their “need to belong” when coupled with a being that is programmed to treat them how they *want* to be treated. David Levy also shares this mindset, arguing that humans will develop intimate relationships with robots because of their “natural desire [...] to experience more affection, more love” (2007, 106). Nonetheless, on a mass scale today, humans and androids are more likely to be reviled rather than accepted for the romantic relationships that they form with each other.

While part of what causes this abhorrence may be the fact that androids are not human beings, we could also argue that it is because they are made of technology. Their technological origins suggests that they are not alive, and thus not deserving of respect. Yet, in our contemporary age where opportunities arrive through the intersection of bodies and technology, as Nadine Elhers notes, “life is open for transformation and revisioning” (2020, 120). With contemporary biotechnology practices (such as gene editing or the creation of new organisms), life is becoming “increasingly technologized” (2020, 120). Furthermore, if an android reaches a point where it can make its own decisions about its life, it is hard to argue that its programming prohibits it from having a life. Keeping this in mind, a key tenet of posthumanism is recognizing that humans continuously co-evolve with nonhumans. With this promise of mutual evolution, romantic relationships between humans and androids must not, necessarily, always be seen as detrimental. These types of relationships require a great deal of care and attention.

This paper argues that if Western culture wants to be more accepting of human-android romantic relationships, then this acceptance must also be on the condition of recognizing that humans need to also give care in return—humans, too, need to be carers towards their technological companion. Some scholars that are interested in many different types of intimate relationships emphasize that they involve not only love, but also care (Hochschild & Ehrenreich, 2004). Much like a human should not be in a romantic relationship with a human if they do not care for or care about them, this same expectation similarly applies to a human-android relationship. Moreover, a crucial element of humans giving care means accepting and advocating for android autonomy.

In theorizing this need for respecting android autonomy in human-android romantic relationships, I turn to ethics of care (or ‘care ethics’). In its earliest form, established through the work of Carol Gilligan (1982) and Nel Noddings (1986), care ethics sought to challenge ethical ideas that are too focused on justice and rights, by instead placing emphasis on values that are central to the way



humans care for each other. Ethics of care argues that moral action focuses on the relationships we have with others. Instead of focusing on general ethical principles that promote absolutes, ethics of care focuses on an individual's empathy, sympathy, and compassion towards others and looks at individual situations with flexibility (Noddings, 1986). Judith Phillips explains that care can suggest a wide range of codependent emotions and responses, such as "affection, love, duty, well-being, responsibility and reciprocity" (2007, 1). Gilligan's care ethics is a branch of feminist theory; she believed that women had different emotional responses compared to men, and that this called for a different ethical system directed towards women (1982). Yet, ethics of care has also been adapted to apply to other marginal groups. I am interested in how ethics of care can also be extended to other beings (human or nonhuman) who are sidelined within an oppressive system. For example, ethics of care is often applied to nonhuman animals. In more recent years, ethics of care has also been applied to "carebots", or robot caregivers (Teo, 2021; DeFalco, 2020; Yew, 2020).

As care ethics continues to develop, scholars are becoming more attentive to its complexities and the need to be more flexible when considering and adapting its values. As I stated earlier, I argue that demonstrating care in a romantic human-android relationship must include a respect for autonomy. Autonomy can be understood as one's capacity to make and act out their own decisions; a lack of respect for autonomy means hindering the individual's ability to act out their autonomy. Yet, autonomy has not always been a main concern in the field of care ethics, primarily because autonomy has been often labelled a concern for justice and respect, and less about welfare. However, in more recent discussions, care ethicists have been trying to see justice and care as complimentary rather than oppositional. Michael Slote, for example, aims to outline the importance of autonomy for care ethics in his work (2007). If ethics of care completely dismisses autonomy, then the "care" that is being exercised can risk being oppressive to the recipient of the care. Ultimately, welfare and autonomy do not have to be seen as oppositional; one's lack of autonomy, after all, can lead to a poor state of mental welfare.

Amelia DeFalco, in her discussion of posthuman care, asks, "what happens if one uncouples 'care' from 'human' and takes seriously the possibility of posthuman care?" (2020, 33). In considering this, this paper explores Cassandra Rose Clarke's science fiction novel *The Mad Scientist's Daughter* (2013). *The Mad Scientist's Daughter* follows a human woman, Cat, and an android man, Finn, who fall in love with each other, and the internal and external factors that try to keep them apart. While there are many novels that depict a human-android romance, Clarke's novel is widely overlooked in scholarship. Cat's eventual acceptance of her wrongdoings and her eagerness to correct her behaviour is what makes Clarke's novel a significant case study for care ethics and human-android autonomy. I look at this fictional example as an indication of an ethical quandary and ideas for resolution because of the power of narrative imagination. Martha Nussbaum argues that "Citizens cannot relate well to the complex world around them by factual knowledge and logic alone" (2010, 95), and she counts on our ability to "think what it might be like to be in the shoes of a person different from oneself" (1997, 10).

Clarke allows readers to re-evaluate common fears of human and android interaction. Her novel presents an underlying narrative of what it means to be 'real'. Are the feelings that the humans and the android have for each other real? Iris Murdoch states, "Love is the extremely difficult realisation that something other than oneself is real" (1959, 51). The novel's depiction of a human and android character in love reveals how technology can expand what it means for something to be real, suggesting that being real does not have to equate to biologically human or possessing an

absolute consciousness that no one could doubt exists. Through this essay's analysis of Clarke's novel, I argue that in depictions of romances between humans and AI living in a technoculture, posthuman care can reaffirm a humanity that is shaped by a selfless concern for autonomy. What this concern for autonomy also entails is a questioning of consent: what is the android's relationship to their capacity for giving consent? If the android is 'real' and possesses a sort of life, are they able to give consent? Attention to these questions and this caring model suggests a posthumanist dream of humanity that requires trying to understand or learn more about the feelings and choices of a nonhuman being—even if those feelings and choices are artificially simulated.

Clarke's *The Mad Scientist's Daughter*

Following Catarina Novak (Cat) from her childhood to her adult years, Clarke's novel closely looks at the evolution of Cat's relationship with an android named Finn. Finn is brought in by Daniel (Cat's father, who is a scientist) to live with the family while he assists with Daniel's research and tutors Cat. Early on, Cat forms an attachment to Finn and does not trust "the people who called him *it*" (24, emphasis in original). Seeing how quickly Cat is attaching herself to Finn, Daniel soon feels that he has to explain to Cat that Finn's kindness and friendship towards her are not real: "He was programmed to respond to certain actions and requests in a certain way. He was programmed to be polite. [...] He doesn't form attachments the way you or I do" (32). Cat tells her father that she knows, but in truth she does not actually believe him. While readers could easily explain Cat's mindset as a product of her as yet immature intelligence, it would be more valuable to recognize Cat's mindset as one where she prioritizes her feelings towards the kindness she receives from Finn, rather than any scientific data that proves that the kindness is real. As Levy notes, "The robot that gives the *appearance*, by its behavior, of having emotions should be regarded as *having* emotions" (2007, 120). Ultimately, Cat's reluctance to dismiss his kindness suggests to readers that they, too, should see the android as having emotions because it helps cultivate feelings of empathy and shaping a humanity that is compassionate and benevolent. Cat refuses to believe that Finn does not have emotions; for her, if he appears to have emotions, then she is also going to feel an emotional response to him. What this indicates is that appearances do, indeed, matter and they are enough to justify empathetic responses.

However, as Cat grows up, she tries—and sometimes struggles—to think more rationally about Finn. As an adult, she remembers her father telling her that Finn's kindness is a program: "She hadn't believed it as a child, but she was older now, and she knew how computers worked (p. 116). Yet, if she does believe that Finn is a program, this belief does not generate hierarchal mindsets regarding whether he deserves rights. One of the ways she rejects these hierarchies and embraces care towards androids is by donating to the Automaton Defense League (ADL), a group that "works to change legislation dealing with the rights of manufactured life forms at both the local and national level" (p. 171). Cat chooses to donate to the ADL even though at the time she is married to Richard, a robotics company CEO who is against robot rights. Unlike Richard, Cat is invested in the ethical quandary of posthuman rights. When she attends an ADL meeting, Cat states, "It's very important to me that robots are granted the rights of human beings. [...] We're all people." (172).

With her decision to donate money to the ADL, Cat demonstrates what Noddings refers to as "caring-about" and "caring-for", and what Donovan, following Murdoch, labels "attentive love" (2007, 192). As Noddings explains, "Caring-for describes an encounter or set of encounters



characterized by direct attention and response. It requires the establishment of a caring relation, person-to-person contact of some sort. Caring-about expresses some concern but does not guarantee a response to one who needs care” (1986, xiv). Even if we care about someone, we may not be in the position to care for them because we are limited by time, resources, and space. Here, I would argue that Cat is engaging more with caring-about; she does indeed offer money to the androids, but she does not make further efforts to establish a person-to-person caring relationship with each of them. On the other hand, caring-about still carries importance, and aligns with Donovan’s ideas of attentive love, which she describes as “moral reorientation that requires developing one’s powers of attention” (2007, 190). Donovan states that care ethics requires from us a “paying attention to what is overlooked when the subject is framed according to prescribed value and aesthetic ideals, relegating the overlooked material to insignificance or indeed to nonbeing” (2016, unpaginated). While Donovan primarily connects care ethics to discussions of animals, these questions are pertinent when discussing human-android relations as well. What does it mean to pay attention to androids? Donovan emphasizes the importance of attention and explains “people exercising attentive love see the tree; but they also see the logging industry” (2007, 192). Cat sees the individual android that is Finn, but she also sees the ways in which he is oppressed by pre-assigned values, placed on him by human society, defining him (and all other androids) as an object for human labour. This notion of attentive love is worth applying to the relationships between humans and androids. Donovan explains that formulating an effective and proper ethical response must involve not losing sight of a political analysis. Cat exercises care towards androids—and, by extension, her relationship with Finn—by recognizing that the status of being a “person” is a societal criterion to being granted rights. Cat can exercise a form of care towards androids by actively making the decision to recognize them as people—a decision that brings them closer to having rights and a sense of autonomy.

Yet, even though Cat chooses to recognize Finn as a person, the fact that he is an android leads her to struggling to understand the desire that they feel towards each other. While Finn and Cat develop a sexual relationship (before she marries Richard), what prevents their intimacy from reaching its full potential is the constant discussions of whether Finn’s feelings are ‘real’ and whether he can love. When Cat asks Finn if falling in love is within his capacities, he responds, after some consideration, “No, I don’t believe I can. Love is far too ill defined a concept to work within my current parameters” (126). After hearing this, teary-eyed Cat reminds herself that he is “*A program*” (126, emphasis in original). Even though Cat dismisses anyone suggesting that Finn is inferior to humans, she still lets herself think that his feelings do not matter because they are artificially constructed. Cat cannot yet accept the possibility that Finn may possess even a limited capacity for feelings. In doing this, Cat chooses to see Finn’s care towards her as inauthentic and inadequate.

The irony in Cat choosing to see Finn’s care as inauthentic is that she herself does not put in the proper effort to exercise care towards him. This lack of exercised care can especially be seen in their sexual relationship. The sudden death of Cat’s mom is what generates Cat and Finn having sex for the first time. At this point in the story, Cat feels numb, has not been able to cry, and refuses to verbally acknowledge that her mother is dead. In a recognition that she wants to be able to feel something, and after feeling a spark of desire after she kisses Finn, she asks him if he would have sex with her. Even though Finn agrees to, he first tells her, after a pause, “I’m not sure it would be appropriate” (90). While the reason for Finn’s hesitancy is never revealed, readers may assume that he thinks it would be inappropriate because Cat is grieving, or he thinks that having sex may complicate their relationship and cause him confusion. This assumption can be made if

we remember that Finn is a programmed computer and has thus likely been programmed to have a specific type of response to Cat's request. Nevertheless, Finn may agree to have sex with her because he recognizes that she feels like she needs it. Indeed, after they have sex, Cat finally cries and finally accepts that her mother is dead.

While Finn acts like a carer in this moment by providing Cat with the outlet that she needs to confront her emotions, let us not forget that this is what *she* needs. We cannot dismiss the problematic interaction evident in their sexual encounters, a power imbalance. The most basic power imbalance exists in the very construction of Finn, an android created for human agendas. Furthermore, Cat consistently uses Finn as a sexual object. While it is true that Cat has romantic feelings for Finn, she does not clearly vocalize them to Finn during or before their sexual interactions, and instead uses him as an escape from her loveless marriage to Richard. Also, while it could be argued that Finn does suggest an ability to exercise consent when he first expresses his opinion doubting how 'appropriate' it would be to have sex with Cat, it is tricky to argue for consent in relationships when there is an unequal power dynamic. Finn, after all, has been programmed to accept that humans are the masters over androids. In his discussion of robots, sex, and consent, Emmet Asher-Perrin asks, "Can [the robots] be taken advantage of either emotionally or physically? [...] Is the person who wants to enter into a relationship with the robot considering these issues at all? Is the robot?" (Perrin, unpaginated). These are important questions that show a concern for android autonomy and whether the human is properly considering it. In these sexual encounters, Cat does not suggest that she is thinking about these ethical issues.

Nonetheless, Clarke's novel allows readers to recognize the importance in contemplating ethics. One of the novel's generic engagements—the coming-of-age story—allows for this development. As I mentioned earlier, Clarke's novel offers a third person focus on Cat from childhood to adulthood. While it is true that this sole focus on Cat, and not on Finn, does not allow readers to step into Finn's shoes, Cat's shoes take her to an important place near the end of the novel—that of awareness, acceptance, and responsibility. What Cat 'comes into' when she comes of age is a more selfless emotional maturity. Cat later shows remorse for her dismissal of Finn's feelings when her father finally admits the truth about Finn's emotional capacities, and what he did to remove the barriers to those capacities. Daniel first admits to Cat that he lied about Finn not being able to feel emotions: "He could feel things. I just think he [...] was different. His ability to feel things was [...] repressed. A protocol that was meant to make him obedient. [...] Certain intense emotions were overridden" (237). He then confesses to Cat that after her wedding to Richard he began to work on a program "that erased all that" (237). While there is certainly a valid and important argument to be made that Daniel does not respect Finn's bodily autonomy since he does not seek consent when he installs the program that allows him to fully access his repressed feelings, his decision is complex because it is still motivated by caring-about. Daniel cares about Finn and his daughter's relationship. Daniel recognizes the predicaments of human-centered agendas, and he creates this new program because he cannot bear for the caring relationship between Cat and Finn to be hindered because of a protocol engineered in Finn to "make him obedient" (237). By giving Finn access to his feelings, Daniel allows the love and care between Cat and Finn to further develop. At this point in the novel, Daniel no longer works with AI because of the ethical concerns he has over how they are treated. Daniel now denounces the mistreatment of AI and refuses to foster harmful mindsets that would prevent his daughter from developing a fulfilling relationship with Finn. While Daniel forsakes Finn's autonomy when he reprograms him, it is not too late for Cat to pay attention to it. As Cat soon learns, this fulfilling relationship must include an attention to autonomy.



In paying attention to this, Cat must consider Finn's attitude towards being an android and being reprogrammed. Cat decides to accept Richard's marriage proposal after Finn tells her that he does not believe he can fall in love. While married to Richard, Cat asks Finn to visit her, and Finn always responds with the same answer: "You're married" (159). Cat never tries to analyze why Finn constantly responds in this way, nor considers the possibility that he feels betrayed by her marriage to Richard. Later in the novel, when rights have been granted to androids so that they can make their own life decisions, Finn decides to auction himself off, which results in him being bought by a company doing work on the moon. Cat panics and begs Finn that he cannot go, telling him, "You'll be like a slave. They're just using you" (178). Cat's panic is triggered by her feelings of needing Finn and she pays no attention to Finn's needs. Finn replies that he already knows what being like a slave is like, and that he is not talking about how her father treated him. Cat understands at this moment that Finn is implying that *she* used him like a slave, for emotional and sexual fulfillment, without fully considering him as a person with feelings and a right to self-governance. Instead, Cat has been treating Finn like an object she is entitled to govern.

In shedding this entitlement, Cat must come to terms with the ways in care and connections are not just human-centered. Pramod Nayar explains that critical posthumanism "calls attention to the ways in which the machine and the organic body and the human and other life forms are now more or less seamlessly articulated, mutually dependent and co-evolving" (2014, 19). Indeed, Cat and Finn are two different (human and nonhuman) life forms that mutually develop and co-evolve. Part of what nourishes this co-evolution is being willing to learn about the other and recognizing and correcting one's own mistakes. Care ethicist Joan Tronto explains that one needs a sense of responsibility to care for an individual or a situation at hand. Furthermore, the individual must follow through that responsibility with enough competency (1993, 133). Cat accepts these ethical elements when she acknowledges the ways in which she chose to misread Finn in the past. She reflects on the moments whenever Finn would tell her "You're married": "His expression had been cold and she hadn't allowed herself to see it at the time. [...] The transformation in how he spoke her name, his sudden sharp movements, the way he wouldn't look her in the eye. She had refused to acknowledge what she saw" (238). Cat's willingness to accept her past errors allows her to recognize how she once did not properly care-for Finn, even though she cared about him. Cat did not properly exercise caring-for because she continuously overlooked his feelings and autonomy. She later thinks about the pain she caused him: "How could she be so stupid, so self-involved, to not see that she had caused him pain during all those years they were together and not-together?" (241). Murdoch explains that the more it is acknowledged that another person "has needs and wishes as demanding as one's own, the harder it becomes to treat a person as a thing" (1970, 64). Cat further thinks about all the times she spent with Finn where "she didn't understand him in the slightest. She hadn't allowed herself to, because understanding him would mean giving up the convenient lie that he didn't care" (244). In convincing herself that Finn does not care about her at all, Cat ends up not properly caring for him. Here, however, Cat takes responsibility for her lack of care, a corrective step.

Yet, to fully treat him as a person worthy of care, Cat cannot completely ignore Finn's association with 'things'; she must come to terms with the fact that Finn's body is driven by machinery. Part of appreciating Finn and wanting to learn more about him includes understanding and accepting how he was built. Later in the novel, Cat finds Dr. Condon, the scientist who created Finn, and pays her a visit. Dr. Condon abandoned Finn after she recognized that he could not live up to the memory of her dead son who she modelled him after. When Dr. Condon shows Cat a circuit diagram of the inside of Finn's body, Cat thinks, "It was so complicated it looked like a work of

art. [...] It was unfathomable to her, as unfathomable as the models of the human circulatory system” (255). Jane Bennett explains “things” as “vivid entities not entirely reducible to the contexts in which (human) subjects set them” (2009, 5). By acknowledging and accepting the inexplicability of Finn’s body, Cat recognizes that Finn’s body carries its *own* power and cannot be limited or diminished by human assumptions. By recognizing this and by comparing Finn’s body to the beauty of art, Cat does not mean to objectify Finn, but to reject any hierarchies that could be formed between humans and AI based on the constructions of their bodies. Cat, in shock, asks Dr. Condon, “This is the reason you couldn’t love him?” (235). When Dr. Condon replies “It’s not flesh and blood [...] It’s not normal” (256), Cat asks Dr. Condon to show her more: “I want to know everything about him” (257). DeFalco argues that posthuman care is “a way of conceptualizing contact zones that are ubiquitous and ongoing, sustaining, formative and transformative” (2020, 50). Viewing the circuit diagram prepares Cat to sustain, nurture and reshape her love for Finn, which in effect transforms her relation to care. Cat accepts the fact that she is in love with an android by refusing to see the android body as something abject or unadmirable.

After Finn returns to earth to attend her father’s funeral, a now divorced Cat apologizes for her past actions towards him, confesses her love, and gives him the ‘option’ to stay and live with her and her son (whom she had with Richard). While he initially does not understand what use an android has for love (317), Finn ultimately decides to stay and live with Cat and her son. The love and care that Finn feels for Cat fills him with his autonomy. One of the reasons why Finn initially decided to auction himself off is because he recognizes that Dr. Condon wanted him to be human, but he could not live up to that expectation. In his decision to stay with Cat, rather than focusing on how he is “just a machine” (317), Finn instead embraces a loving and caring relationship with a human, one in which ontological differences should not solely define how they feel towards each other. Indeed, Finn is a machine—and Cat needs to always remain attentive to this and what that could mean for the power imbalance in their relationship if care is not properly exercised—but he is not *just* a machine. The world in which Finn and Cat build for themselves, together, can thus be seen as what Donna Haraway calls “a cyborg world”, which involves “lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanent partial identities and contradictory standpoints” (1991, 154).

Conclusion

In her discussion of science fiction, Evie Kendall notes that the genre “bear[s] a social responsibility for providing meaningful philosophical and political debate on the potential impact of emerging technologies on society” (2015, 109). Clarke’s novel engages with AI and stirs a discussion about human responsibility towards AI. Furthermore, the depiction of a human-android romance and the discussion of care in Clarke’s novel reveals the ability of science fiction to cultivate human empathy. Science fiction can teach us to embrace both non-anthropocentric and non-technophobic (albeit cautionary) care responses. While one could argue that the happy-ending to the novel simply glorifies human-android romances, Cat is not just blindly rewarded this happy ending; she has to earn it. Cat “comes to age” when she finally becomes honest with herself about the ways she used Finn and disregarded his autonomy, about the power imbalance between them, and accepts the fact that her relationship with him will require a lot of careful attention.

Clarke’s novel does not argue for an anti-AI standpoint, but instead argues for us to re-evaluate anthropocentric notions when it comes to our caring, intimate relationships with other beings. In



Rosi Braidotti's discussion of post-anthropocentrism, she writes, "what understandings of contemporary subjectivity and subject-formation are enabled by a post-anthropocentric approach? What comes after the anthropocentric subject? How one reacts to this change of perspective depends to a large extent on one's relationship to technology" (2013, 58) Indeed, as shown through Cat and Finn's relationship, one of the strengths that *The Mad Scientist's Daughter* possesses is that it does not offer a dystopian relationship with technology in its vision of the coming "singularity", what Raymond Kurzweil describes as the future where computers will have full human-level intelligence and when "machines will be human, even if they are not biological" (2005, unpaginated).

Nor is Clarke's novel necessarily utopian in its visions. A utopia would also imply little to no struggle. Yet, as Delphi Carstens writes, "care is about seeking out an ethics of collective affirmation for the hopeful flourishing and everyday struggles of *all* beings, both human and nonhuman" (Carstens, 2020, unpaginated). Cat and Finn both struggle to understand each other throughout the novel and must put in work to try and understand each other to cultivate care in their relationship. A utopia also often suggests an ideal. Yet, seeking perfection is not the point and cannot be the point in caring relationships since both participants are always evolving with each other. Rather, caring requires a willingness to learn and evolve with each other, in a way that encourages empathy and a readiness for personal change and admitting one's own shortcomings. Sherry Turkle writes, "We ask [of the computer] not just about where we stand in nature, but about where we stand in the world of artefact. We search for a link between who we are and what we have made, between who we are and what we might create, between who we are and what, through our intimacy with our own creations, we might become" (2005, 18). Indeed, posthuman care coupled with romantic relationships in contemporary science fiction can show us what we might, and very well can, become; these elements can make us more human, with a humanity shaped by an eagerness to care about and care for others.

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