All Reproduction is Speculative Fiction:
Miracle, Contagion, and Alien in three stories of Trans Reproduction

Introduction

Reproductive studies and transgender studies, in their substantial overlaps, have yet to fully utilize their critical tools together to map out the relationship between norms in reproduction and norms organized around presumed "cisness". Primarily framed in legal, legislative, and popular arenas using the language of "need", trans reproduction is stuck. Access to good care is essential to the survival, progress, and wellbeing of trans people. At the same time, "need" need not be the only framework for thinking trans reproduction. Now that transsexuality has long established that changing one's sex is possible, reproduction and reproductive theory must adapt to the flexible reality of the connections between sex, gender, and reproduction. This article proposes that one of the ways to unstick trans reproduction is through repro-speculation. Taking three examples of reproductive speculation in history and fiction, I argue that all reproduction can be understood as a form of speculative fiction and trans reproduction, in particular, is well suited to re-thinking the reproductive present.

It is notable that so much of the medical care research on transgender individuals focuses on the language of "needs" (Cruz 2014). Evidenced in Paine (2018), and Pfeffer al. 2023, studying transgender medicine appears to be a question of "which needs" and "whose well-being are being protected" in the navigation of a lack of clarity among transgender reproductive help. Needs are well suited to a medicalized power analysis, since the standards of care so often rely on a concept of what is "necessary" in terms of gender affirming care. However, they limit what we can think of as "possible". Focusing on what transgender people strictly need is both urgent and obfuscating. Part of the function of a heavy focus on medical authorization and a science that desires stability in trans health care is ultimately about controlling and producing "normal" reproductive outcomes (Almeling and Timmermans 2021, shuster 2021). Such normal outcomes largely gravitate around ideals of reproductive normativity, tied strongly to state controlled concepts of health (shuster 2021, Beauchamp 2019). While the language of "needs" is indeed necessary for outlining the difference between non-existent care and care that is (or is not) meeting the bare minimum, the reproductive lives of transgender people, like that of all people, expand far beyond the narrow line of medicalized fertility care that currently dominates the literature.

As such, this article proposes what I understand as a necessary seismic shift in the understanding, research, and interest in transgender reproduction. Instead of considering such a phenomenon a "problem" of identity that crops up in an arena of care rife with medical authority (although, this is surely the case), I seek to push our analysis of transgender reproduction beyond a question of "care" towards one of possibility, even desire. This article proceeds with three cases. First, the historical case of Dawn Pepita Hall demonstrates how miracle is an effective tool for achieving reproductive desires through a speculative present. Second, through a critical reading of Torrey Peters' "Infect All Your Loved Ones" , I argue contagion is an expression of trans reproductive rage answering the present dystopia trans people face in health care and beyond. Finally, a discussion of Octavia Butler's novels *Lilith's Brood* and short story "Blood Child" demonstrates how total alienation of the flesh mirrors the past, references the present, and scrambles the future of reproductive possibility.

As argued by Almeling (2021), social beliefs, especially around gender, race, class, and sexuality, become "embedded in biological, technological, and medical approaches to human bodies, profoundly shaping how they are categories, studied, treated, and commodified"- which produce inequalities. Moreover, inequalities can become embedded in our own imaginations and desires. Taking the premise "all reproduction is speculative fiction" seriously, trans approaches to reproductive imaginaries underscore our fictive realities and utilize them for our own purposes.

As Almeling argues, "transhumanist fancy meets sociological realities" in inequality and its persistence -so how does that impact our world of the speculative? Well, that means we must make sure to include the experience of such reproductive inequalities in our imagining. I am seeing speculation as a method and a prompt to be the meeting point of reality with fancy. Utilizing speculation, specifically for transgender reproduction, will assist pushing beyond "what we need" and towards "what we want" as a framework for understanding the continued state reproductive violence and control exerted on the reproductive lives of those deemed undesirable subjects of the nation.

Reproduction is stuck

Reproductive scholars have documented the ways in which reproduction have been read through overly determined gender roles, such as Martin's 1991 accounting of the masculinized sperm and passivized egg, as well as Almeling's work on how female bodies are rendered reproductive while male bodies are left out of the equation altogether. As stef shuster (2016) has articulated, "much of trans medicine has been built on the assumption of binary genders" (shuster 2016:321). It is well documented that trans people's understandings of themselves are often much more fluid and flexible than is portrayed in popular knowledges and research and "cross'-gender transitioning is not always the ultimate goal" (shuster 2016). Instead of a "one size fits all" medical praactice, medical sociologists Timmermans and Almeling (2009) have found that moving away from a binary yes/no policy for health care towards developing a standard that can navigate between competing needs and disease in trans reproduction (Coleman et al. 2022; Pfeffer et al. 2023). The medical refusal to consider the of gender affirming care (such as testosterone) during pregnancy as what Paine (2018) calls "embodied disruption" or, "how embodied nonconformity to binary medical constructs disrupts ordinary medical interactions, and how provider reactions prevent GNC (gender-non-conforming) patients meeting their health needs" (357). This supports the refutation of a long misunderstood element of transgender fertility: which is that trans people do not want to pursue reproduction, parenthood, or even fertility preservation because it might interact negatively with their own sense of gender identity (*ibid.*). This premise has been taken up by a number of studies on transgender intentions, desires, and family making practices.

However, following Timmermans and Almeling's (2009) work that wisely precautions against jumping from uncertainty to stability, they argue that "the point is not to presume stable and universal health care goal ut to document who aims for what kind of outcome under which circumstances and then to examine what kinds of actions are made possible to reach these goals" (2009:27). Thus, the conclusion of the vast collection of public health articles on transgender reproduction is almost always some iteration of the same conclusion: more research on transgender reproduction will inevitably lead to better outcomes on the presumption that research=stability.

However, Timmerman's and Almeling are right to caution us against forcing better health care outcomes through the structures of legitimacy and stability. Such tactics work to produce more normative subjects and framework, instead of changing the internal workings of medicine to meet the needs of the subjects. Thus, we come to an important point in analyzing transgender fertility and reproductive health: the problem with the public health perspective. Out of all of the literatures surveyed, the vast majority were published in public health or medical care journals, and even the social scientific texts were housed in medical social sciences. Reproduction, as reproductive is not just about health or fertility (Lewis 2019). Many theorists of reproduction have spent their careers flipping such a conclusion on its head (Franklin 2013, Briggs 2019)

Repro-Speculation

As an answer to the stickiness of reproductive health and science, I propose the tool of repro-speculation to do the hard work of unsticking, Our bodies are flexible. We can change sex. Technological determinism won't save us but maybe speculative determinism will.

When discussing the possible in a reproductive context we are also always discussing what it means to be human. Repro tech is often understood as the threshold of the division between human and machine, as exemplified in Haraway's infamous essay "Cyborg Manifesto". As Kalindi Vora writes, "Since the first industrial revolution, automation has signaled the threat of the replicability of specific types of human functions and human workers that are racialized and gendered… including manual labor, blue collar factory work, and reproductive and care work…" (Vora 2019). What does all of this need vs. potential have to do with "the human". Chen (2012) argues that Nadya Suleman (octo mom) is an "ambivalent figure of the monstrous humananimal"- "materializing the possibilities of the body's extensive capacity for change, animation, and stretching and on the other hand exacerbating the cultural obsession with reproduction" (Morgan 2020). As Vora argues further, when we discuss the possible, we are also always giving an account of how things are as they stand, things as real. This is what Lisa Messeri (2020) has coined as "speculation as method", the use of speculative thinking for social scientific research. Only through speculation can we envision what Morgan (2020) calls a "future forged through non-biologically determined reproduction".

Speculation, in the realm of the reproductive, has the potential to utilize desire and imagination to create a trans "revaluation of family values", as Morgan (2020) puts it. Speculation as a method in sociology is present at the establishment of the discipline in the work of forefathers such as W.E.B. Du Bois and Charles Mills (Du Bois 1920' Mills 1959). As theorists, we are often tasked with studying, as Nancy Scheper-Hughes' described her own work in organ trafficking, social practices that are "stranger than fiction" (2002). Speculation as a method has been particularly suited to research in feminist science and technology studies, such as anthropologist Adriana Petryna's work *Life Exposed* (2003) on medical citizenship, Shraddha Chatterjee's (2022) work on crisis epistemologies and Joanna Radin's writing on "the speculative present". In Ruha Benamin's article on speculation she rightly asserts: "The facts, alone, will not save us". Transgender studies of reproduction have begun to create a corpus of thinking on "what is", however, following Benjamin, social change requires a reworking of the taken for granted current structure of society. Benjamin argues that prompting speculative thinking is that can assist in challenging "ever-present narratives of inevitability".

For the sake of this presentation, I utilize a concept of Joanna Radin's called the "speculative present". Drawing on Haraway's work in the Cyborg Manifesto, "the boundary between science fiction and social reality is an optical illusion" (Haraway 1990). Therefore, the speculative present is "a strategy for considering the relationship between fictional worlds depicted in speculative works and the real-world building for which those speculative visions are used beyond them" (Radin 2019). Following Nirta (2017), I find value in the idea that repro speculation and trans reproduction have an ethical urgency. At the same time, I find speculation to be a practice not just about the future, but, as Nirta articulates, a practice that is happening in the present-as-past-as-future.

Techno-Futures

One of the answers to reproductive cis-normativity is the developments in technology and medicine that enable flexible reproduction. Such developments- once unthinkable- have become routinized. Technological advancement does not determine utopia, but such utopias do exist here and now- men can give birth and women can have successful uterus transplants to successful gestation. Take IVF for example. As Sarah Franklin puts it, "having passed through the looking glass of ivf, neither human reproduction nor reproductive biology look quite the same" (Franklin 2013). This technologization of reproduction is both ordinary and curious, historic and modern. Ordinary, in that it follows a long history of reproductive maneuvering of a so called "natural" process, and curious in that with each technological development, reproduction appears to be both more accessible and more controversial at the same time. As Sarah Franklin writes: what does it mean that ivf has become a looking glass through which we see ourselves?

Since the invention of IVF, more controversial developments in reproduction have followed, the most recent include ectogenesis, uterus transplants and *in vitro gametogenesis*. Uterus transplants have been in development since the turn of the century.. Developed to treat absolute uterine factor infertility in cisgender women, which had been considered incurable, the world's first baby via uterus transplant waws born in Sweden in 2014 (Murphy and Mumford 2023). Alike uterus transplants, the development of successful exogenesis technologies (artificial wombs outside of the body) have created a stir amongst bio ethicists and the broader public. However, Artificial wombs, like most assisted reproductive technologies, however are not as "new" as they are often discussed. The first artificial womb was discovered, not invented, as Merve Emre writes, in 1896: "Robinson s emerged with what he called his 'artificial womb': a black steamer trunk with a sliding window cut into the lid, a cruder version of the infant incubators soon to debut at the Great Industrial Exposition of Berlin in 1896."

How can we utilize repro speculation to not only dream of new possibilities (as evidenced in repro tech) but also to reflect and engage with the material issues of the present? In order to answer a number of outstanding questions, I turn to three examples of speculative to answer a number of outstanding questions. In *Miracle*, I argue that transfeminine reproductive desire can find activation through the lens of the miraculous. In *Contagion*, dystopian fiction and rage highlights the structural-meets-personal reproductive violence facing trans women. Finally, in *Alien,* I show how complete disavowal of reproductive familiarity can draw upon the power of the speculative present to produce futures of the past.

Miracle

In this section, I utilize the speculative present as a lens for a trans historiographical revision of the figure of Dawn Pepita Hall, a "scandalous" figure in South Carolina during the 1960s whose historic pregnancy provides a lesson in the utilization of speculation for the performance of the miraculous.

Dawn Pepita Hall, also known as Dawn Langley Hall, Dawn Langley Hall Simmons, and Dawn Hall Simmons flooded newspapers in 1969 after announcing her pregnancy (United Press International 1969). A pregnancy, unless you are famous, is hardly headline news. But Dawn was already the subject of popular consciousness. Just that January she made headlines for marrying her former employee, now-husband, John Paul Simmons. Their marriage one of the first marriages in South Carolina after *Loving v. Virginia* made interracial marriage legal. On top of the sensationalism that came with being one of the first interracial marriages, Dawn Pepita Hall was living her life as a publicly out transsexual woman. Born in England, Hall identified as intersex and claimed that her sex assigned at birth had been a mistake. At the time of her marriage, she was identifying publicly as a transsexual woman and was widely known for her career as a writer of fiction (Simmons 1995). In the late 1960s she underwent a "sex change operation" or- as Dawn would put it- a revision, and shortly thereafter married John Paul and announced her desire for children.

Dawn was known around town for housing a menagerie in her Charleston mansion, expressed as evidence of her desire for children: "I have always loved children, for which my animals substituted" (Ball 2010:3850). When she announced her intention for childbearing she was met with heavy criticism and skepticism that built on the vitriol her and her husband were already subjected too. Images of her cradling her pregnant belly turned up in local newspapers and doctors at the nearby John Hopkins Hospital weighed in on the possibility of her having a baby (The Associated Press 1960). Even when she emerged pushing a brand new infant in a pram, her daughter Natasha, both local and national coverage remained skeptical of her ability to have gestated and birthed her own child. Still- Dawn insisted that this had been the case. Whether Dawn did or did not give birth to her daughter remains unclear, with evidence from her ex husband that indicates that perhaps Dawn was not the genetic parent of Natasha. However, this section does not intend to focus on solving a historical mystery. This section examines the question: What is the difference between feeling pregnant and being pregnant? There are a number of differences that are obviously different between feeling and being. Dawn helps us push this question to a more urgent one: what is the same?

Conception

At 39, Dawn was much older than the average age of first-time mothers during the period. In her own words, her pregnancy came on strong and suddenly:

> "I was having coffee in Central Drugs on Meeting Street, where the soda fountain is presided over by Mrs. Madeleine Jenness, when suddenly became violently sick and slipped off the lunch stool" (Ball 2010:3850).

As a writer of fiction and autobiographies, Dawn wrote two of her own autobiographies in which she narrated her desires and experiences of family and childrearing. She remarked constantly that she had always desired to be a mother, and her relationships with Natasha remained close until her

death in 2000. Natasha cared for her mother until she died in Natasha's home, and she believed that her mother was her biological mother. Perhaps as part of the structure of her reproductive desires, Dawn did not write about the feeling of pregnancy. Instead, she focused on the pride she had to be giving birth toa mixed-race child. In an interview, she told a reported "my child will be brought to Charleston in about here weeks. Then I'm going to put her in a baby carriage and walker her right down that lily-white Battery" (The Associated Press, 1960).

Having only announced the pregnancy three weeks prior to the interview, Dawn's doctors were interviewed and quoted saying it was "definitely impossible for Mrs. Simmons to become pregnant" (*ibid).* In her defense, Dawn infused her fertile desires with both a sense of racial justice and divine blessing. In almost all of her interviews, she describes her child as a "miracle child", saying

> "I believe that God is higher than medical science and that's my explanation. She's a miracle child and will be a great blessing to black people (*ibid.).*

The miraculous is a ineffective tool for creating the real out of her own desires. In this case, the "truth" of the pregnancy is that which Dawn constructs for the audience looking in. IF she is having a baby, the baby is a miracle, and therefore the baby is as real as any other pregnancy (or- as the first miraculous pregnancy in the bible).

Skeptics

Dawn was uniquely open about her pregnancy, posing with her baby bump for newspaper stories and showing in public. Despite Dawn's clarity of conception and consistency regarding her desire and the outcome of such desires (pregnancy), she was met with skepticism and disbelief both locally and nationally. Locals testified that they would see Dawn with a pregnant bely one day and gone the next, "She became sort of a laughing stock" remembered a friend, "People were unkind, said all sorts of cruel things"... A man familiar with Dawn remembered seeing a "blanket" under Dawn's dress, "a military surplus thing and you could see clearly the stenciled words "U.S. Navy" (Ball 2010). Despite the criticism, Dawn wanted her story to be known and wrote to newspapers and magazines to spread the news of her pregnancy. She wrote to an editor for *Truth* Magazine, Ian Dougal, who thanked her for the photos and implored her to "please let us know how your pregnancy is progressing". Despite the loud denials of the possibility of her pregnancy, Dawn created the groundwork for her miraculous baby to become real.

Sharing Miracles

In preparation for birth, Dawn left town without disclosing the birthing hospital for fear of her safety. Dawn and her husband had already been the target of a number of prejudiced attacks, including an attempted booming of her wedding party and the murder of a number of her animals. Born in Philadelphia, Natasha Simmons was brought into the world but did not entirely humble the doubters. Letters of interest as much as disbelief flooded her Charleston house on Thomas street. The English actor Anthony Dawson wrote to dawn, "the baby, is it really yours? Or did you adopt it?" and Helen Mendenhall wrote from Missouri: "I admire your courage in more ways than one. Also, I know nature sometimes makes mistakes. Did you have a cell chromosome check to see whether male or female cells predominate? Or was it more of an emotional and mental attitude that made you a woman?" (Ball 2010). So, in the sea of doubters, dawn had become somewhat of a figure for those who were pushed to have a creative or unusual perspective on reproduction.

In particular, Dawn became a figure for women everywhere who had trouble conceiving. Most of the coverage ridiculing Dawn came from men and ale media figures, while women seemed to accept the reality of her pregnancy and even seek her advice and speak to her in confidence at a time where there were very few resources for those struggling with fertility issues. For example, Dawn's friends and neighbors accepted her pregnancy as routine Terry Fox, a guest at her anniversary party recalled seeing her shuffling down the sidewalk in flat shoes with a swelling in her dress: "the flat shoes being the sensible thing for women in her condition" (Ball 2010:3850). She received requests for advice from women in all kinds of reproductive pickles. For example, one woman had a hysterectomy but then later had become engaged. In her own words, "her fiancé wanted children, but if he found out about the surgery, he'd call of the wedding" In her letter, she pleaded to Dawn to "refer her to a clinic where she could have a transplant of some kind" (Ball 2010:3850).

Thus, Dawn's miracle baby was both the origin and the evidence that reproduction could be achieved through imaginative means. In a 1980s interview reflecting on her motherhood, Dawns discussed: ""There were always one or two doubters,' she said. 'I am very pleased that recently we had DNA tests to prove that Natasha is my child. One of the large magazines had these tests done, and they all came out positive. They used various techniques. I had a sampling FM y natural mother Marjorie's hair and I have my grandmother Nellie Hall Ticehurst's skin. I actually had the caul, the extra skin that was covering her face when she was born, many years ago, in Wethyham, Sussex." (Ball 2010:1122). Her appeal to scientific authority as well as godly miracle demonstrates the effectiveness of the speculative present. In her imagination of god, she speculates on what she desires could be possible. Using this speculation, she casts her speculation onto scientific reality. By utilizing miracle, Dawn created the speculative present by invoking scientific advancement with religious miracle to create the conditions of her reproductive dreams. Her creativity and rejection of scientific authority (while at the same time utilizing it) demonstrates how miracle is one of the ways in which repro speculation and historic cases of trans reproduction are entwined.

Contagion

In this section, I analyze the use of dystopia and disaster in creating a speculative present for trans reproduction. By utilizing the worst-case scenario, Peters harnesses transgender rage (Stryker 2023) to dream of a world where everyone becomes a little more trans– the reproductive limitations being a feature of this condition. Torrey Peters asks "what if everyone in the world needed to inject hormones", set in a post mutant disease Iowa, we follow a trans woman who navigates the world of hormone injecting citizens and a new market of state regulated and rationed hormonal treatment, available to everyone in the United States and harvested from dirty and questionable conditions: the bodies of mutant pigs.

What does the word look like when the state controls our hormones and therefore our sex, gender, and reproduction (and our moods, our looks, senses of selves)? Well, Peters realistically drafts a state that prioritizes , out of all the possibilities, reproduction over any other outcome of hormonal effect on the human body. In this world, trans women are understood as either the origins of the contagion (the disruptors of reproduction) or as men who can't access or afford testosterone and

who inject "low-grade" estrogen from the mutant pig population. All the "good estrogen" is "tightly rationed ad regulated" she writes:

> "the professional government allots the good estrogen for women of promising fertility. An older woman would have to have a relative in government, or have the money for a really well-placed bribe to get on the ration list. A trans women? People still believe that we Antediluvian trans women started the contagion. Even if we came out of hiding, there's no bribe large enough to get us estrogen" (Peters: 11).

This section calls forth a number of interesting observations about the current social organization around hormones (estrogen in particular)- highlighted through the world of the state-regulated and post-apocalyptic sexual differentiation.

First, Peters observes sharply the state emphasis on utilizing hormone treatments for women of promising fertility. In some ways, state-sanctioned hormone treatment would assist in rectifying what many see as one of the many huge holes in the American health care system: lack of access to fertility treatments. In the US, reproductive citizenship is key to the fulfillment of one's citizenship and belonging, but due to lack of universal fertility care or accessible health care, those who cannot afford to do treatment out of pocket must utilize their citizenship status as currency and make themselves into free-market American consumers of the American reproductive dream: they travel abroad for affordable treatment. The state does currently assist reproduction, however, it does so for fertile, cisgender, white, heterosexual (and sometimes homosexual) families with wealth. That doesn't mean that the state isn't invested in the reproduction of those who fall outside of those categories, in particular, the management and control of reproduction of populations are utilized to weaken political power (as in forced sterilizations) and to facilitate the exploitation of reproductive labor (through offshoring reproduction, abortion restrictions, etc.). Thus, in this new world of full supplementation, the state must ration out based on its priorities who can be hormonal according to their sexological differentiation and, as we will see later in the book, their preferences. It is sharp to observe that that would always, of course, be the fertility of women suitable to be reproducers of the nation.

Second, Peters notes the ways in which some cisgender women (for example, those with fertility issues or those who are no longer considered of fertile age), are aligned with transgender women in that their hormonal levels are seen as significantly less important as a state priority. Finally, Peters' book develops the accusation that transsexualism or transgender identity is contagions or "reproductive" by taking the argument to the speculative extreme via a contagious disease that eradicates natural hormonal production in the body. The fact that transgender women are blamed for starting the contagion exemplifies that true social status of transgender women as taking the blame for infecting children and other trans people with their ideologies about transsexualism. Her observation extends to a gendered analysis: the same accusations do not hold for transgender men in both our current political climate and for the extreme future speculation Torrey argues about.

In a moment of human-animal reproductive intimacy or inter-species interdependence our main character, both hates and desires the modified pigs who provide her with her bio-identical hormones. Her deal with Keith, a pumped up testosterone head who runs the farm where she is learning "pig husbandry" has struck a deal with her: she hopes to steal a few piglets to raise with her partner Lexi. Her desire for nurturing a group of babies is matched only by her disgust: "I hate the creatures, both Keith and the pigs. Keith for obvious reasons, and the pigs because they're

genetically modified to over-produce bio-identical hormones to humans" (Peters 12). She relies on these animals, she longs to mother their babies, yet she is disgusted and hateful towards her dependence and, more specifically, their "unnaturalness". In this book, Peters describes the unnaturalness as a result of genetic modification, a development of reproductive technology.

In Butler's work, the "unnaturalness" (as further argued below) is that of the alien species. But the feelings are the same: desire and want for motherhood and reproduction as key to what makes us human as well as resentment for the non-human innovations technologies we have come to depend on to make this essential connections happen. In Peters' case, the modified pigs are driven crazy with their over-produced hormones, similar to the way industrial meat is bred to make chickens with breasts too large to move and cows with bodies too boisterous to graze, however, these hormonal effects are take out on the people caring for them who rely on them as well: "industrial-grade hormones in my body make me a crazy bitch, and I'm not 600 pounds with inch-long razors for teeth" (Peters 12). Peters asks us to picture the monstrosities on which we rely, emphasizing the industrial and capitalistic market blended with state regulation of the "natural" to create a juxtaposition: reproductive tech is monstrous and industrial, poisoned with the interests of capital while "natural" hormones are a protected class, cherished by the state, protected through laws and regulations, and reserved for the most natural, important process: reproduction. The pigs are their own reproduction, reproducing the mutant interests of capital while being bred and fed for our exploitation, except this reproduction has been polluted by the dirty hands of the free market.

Moreover, the pigs of Peters' novel trade off becoming humanized, treated as monstrosities, and being used to compare to the women / estrogen takers in the novel. Keith barks at our main character when she kicks one of the pigs retaliation: "is it your time of the month or something?", further: "you're bitchier than my pigs. Save some supply for the real girls, huh?" (Peters 12). Keith here insinuates that our character is syphoning and selling hormones to "women desecrate for fertility and pregnancy", the most common users of the pig-hormone, due to the dwindling and aging of the population given rationed estrogen. Keith taunts our protagonist with "real" hormones, valued based on that it is "enough to make a baby factory run for a month" (13). He offers himself as a stud for impregnating any desperate women- holding both the social role (as stud) for insemination as well as the only thing that would make it really possible- the estrogen (13). She imagines him mounting her partner Lexi and his surprise when he finds that she is trans.

Ultimately, Peters' novella ends where it begins: contagion day. Our protagonist is walking home after finding out she has been injected with the vaccine that makes humans immune to hormonal production. On her route home, she is cat-called by a group of young men. In this moment of routine violence, our protagonist makes a choice. As she is grabbed by the arm by one of the men, she leans into the violation to deliver her own: coughing into his face:

> "I want them to know how I suffer. I want them to suffer. I open my mouth to say something, and he leans forward, to catch my words. But no voice comes out. Instead, an elated, vengeful sprite rises up from my lungs, ascends through the passage of my throat, and announces itself to the world as I cough right in his face. (Peters 71).

This moment of transgender rage is pre-meditated in that it encapsulates the desire to spread the pain of being trans in a cis world. In the dystopia, trans women are particularly marginalized

because of the myth that they started the contagion as a repro revenge: ""Trans women started the Contagion, everyone knew. They were jealous everyone else could breed. She told me the poison was God's retribution." (Peters 49). For Peters, God can meet science and set the record straight.

Alien

In Octavia Butler's series "Lilith brood" on the accumulation of human reproduction by an alien species as the trade off for saving a dying earth, a disruption in reproduction calls into question kinship structures, social identity, and ultimately what it means to be "human" after all. Xenogenesis is the former title of the book, Xeno meaning Greek for "stranger" (Lennard 2007) and genesis meaning birth, Xenogenesis accurately conveys the first main contribution to repro speculation Butler offers us: what happens when something as familiar as family, as essential for life as reproduction, *birth* itself, becomes strange? Using the tool of other worlds, of aliens, Butler constructs a narrative that elaborates the premise of true reproductive strangers. Similar to both Peters' and Simmons, Butler combines science and god, as evidenced in her choice of "Lilith's brood" as an alternative title. Both religious and modernist (Lennard 2007), Lilith is the rejected first wife of Adam that meets the uncertainty of "brood", the unsettled and unhappy reproductive state of Lilith in her alien state.

Womb

Book 1 of the series is entitled Womb, representative of both the space Lilith finds her self waking up in (the organ of the alien ship) as well as the origin of her story (the womb as the start of time). In Oankali biology, reproduction diverges from our human understandings in chilling ways. Wombs are almost meaningless of the Oankali as their reproductive organs are generated in response to the needs of gestation. Instead of a designated birth canal, their bodies can chemically generate a gustative location anywhere in their body and the resulting infant can emerge anywhere from the body. This expansion of the idea f reproduction severs familiarity to the human correlation in that it denies the idea of sexually differentiation for reproductive purposes being aligned with particular roles. The Oankali are sexed beings, but their reproductive capacity is outsourced to the Ooloi who are the ones who force and foreclose reproductive possibility in humans.

Emergence

However, the horrific realities of human reproduction are not lost on Butler. Her short story "Blood Child" utilizes the strange as a way to highlight the fiction of reproduction that we take for granted. The theme of young "chewing their way out", as Lennard 2007 puts it is familiar to SF, but Butler complicates this horrific imagination by injecting the idea with the complications of actual human reproduction including pleasure, pain, obligation, and force. The story follows Gan, a young boy living in the alien colony run by insect-like creatures called the Tlic. The humans living in the Tlic colony escaped earth as it was dying, finding the Tlic colony in the hopes of salvation. The subsequent relationship between salvation and the perpetuation of the human species with the reproductive violence required of humans by the Tlic has been analogized to colonialism and American slavery by critics (cite). While Butler herself was reticent to fully analogize slavery in this specific story, her writing does utilize the alien to de-familiarize routine reproductive realities.

Gift

Gan, our protagonist, has been chosen to carry the eggs of a female Tlic name T'gatoi. Carrying eggs is generally accepted as a privilege by both humans and aliens, but some dissenters, namely Gan's older brother Qui, finds the relationships exploitative after having seen a birth by accident as a child. Gan witnesses his own horrors when he discovers a pregnant man Brma Lomas who was abandoned by his female Tlic and eaten alive from the inside out by the larvae that hatch inside of him. The possibility of abandonment scares Gan and, on the night he is meant to be impregnated with the larvae of T'Gatoi, has doubts about his role. T'Gatoi offers to impregnate one of his sisters instead, but Gan refuses and ultimately engages in an intimate and seemingly loving conversation with T'Gatoi that ends with T'Gatoi impregnating him.

There are a number of obvious ways that this story makes reproduction strange. Alien impregnation, male humans as the preferred hosts, larvae eating their way out of the human body. However, the strangeness of the process of reproduction is less shocking than the effectiveness of Butler's description of the repro relationship between T'Gatoi and Gan. Through a mixture of coercion, honesty, devotion, and power, Gan engages in reproduction in a mixture of honor, desire, and fear. This, what should be made the most unfamiliar as it is patterned under the Alien colonization, feels the most intimately strange. Reproduction is horrifying, but it is mystifying, the fabric of Butlers speculative imagination. The negotiation of narrative occurring amongst the Tilk. the pain, the history, the trade-off, the lack of choice and the feeling of choosing.

Overall, Butlers use of the Alien shows how even under the strangest and least confined conditions: alien reproduction, xenogenesis, stranger birth, questions about reproductive freedom and justice are not solved by the explosion of human flesh. Instead, flesh is beside the point. Her questions of devotion, commitment, obligation, and coercion demonstrate the speculative present by utilizing speculative thinking - as alien as aliens- to describe the stickiness of the present.

Conclusion

In the following article, I have argued for the premise that "all reproduction is speculative fiction" by articulating three ways that repro speculation highlight the fictions embedded into reproductive normalcy. Transgender studies is particularly well suited to think critically about reproduction.t I follow Merve Emre (2018) in arguing for an insistence that all reproduction is assisted by our belief in cultural scripts. It is not just trans people who are crafting their reproductive realities. Emma Heaney (2021) writes, on her own complicated quest to get pregnant, "the cervix is not the threshold to a holy vessel… structures are ever-evolving biological entities, who sometimes function as you wish them to, and sometimes do not." Emphasizing how, regardless of how you might choose to get pregnant, our flesh is not foolproof. Not every attempt at pregnancy will set sail. The cervix is a structure that changes with each turn over of our genetic material and is as responsive and flexible as the rest of us. Cis, straight, queer, and trans reproduction share the same raw materials and the same unreliability. Thus, repro speculation, as understood above in the miraculous, contagious, and alien forms is the only way forward.

As Kalindi Vora (2015) has argued, questions about reproduction include questions about what we recognize as human, and as such, who is designated as worthy of creating life. Speculative

thinking empowers trans reproduction to move beyond just material, into the realm of the desires we might have for family making, our communities, and our futures together. It allows for a new designation of value, worth, and life.

Finally, I find this politically urgent, in the need to build political power for abortion rights and transgender health care access, and I find it theoretically urgent. Reproductive studies have focused largely on the bodies of ciswomen and their interpolation as abused political subjects and has much to learn from how transgender studies can destabilize the neatness of this analysis.

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