

Reproductive Technologies and the Future of Motherhood in Chen Qiufan's Science Fiction "In This Moment, We Are Happy"

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Abstract

This paper discusses the notion of motherhood, which traditionally has been culturally and legally established on genetic kinship claims. Today, however, reproductive technologies have already expanded the scope of motherhood to include a range of possibilities. By examining an award-winning Chinese science fiction novella "In This Moment, We Are Happy" (2018), I argue that sci-fi narratives are particularly well equipped to clarify the global controversy over the ethical, moral, and gender implications of real and imaginary breakthroughs in human reproductive technologies. "In this Moment" tells five different yet interwoven stories: a Chinese female entrepreneur who hires a surrogate to bear her child, an Indian surrogate mother who carries a baby for her client, a Japanese male performance artist who conceives and delivers a child as an art project, a German lesbian couple who are the first to produce a child where they are both the genetic parents, and a secret organization with technology that completely excludes individual humans from participation in reproduction. Through a textual analysis of the five stories, I first outline the new reproductive technologies that the author thought could emerge in a linear, progressive fashion, and then discuss how the emergence of these technologies might lead to a corresponding shift of reproductive roles and a subsequent redefinition of motherhood. Next, I demonstrate how the author adopts the innovative form of a documentary script to simulate the responses of readers, and by extension the publics they represent, to the emergence of unconventional reproductive roles. Lastly, I argue that the author adopted a pro-feminist stance in his narration, which, I believe, is appropriate and powerful in that, for better or worse, women are likely to be most affected by the emergence of alternative reproductive roles and the subsequent redefinition of motherhood.

Key words

reproductive technology, motherhood, Chinese science fiction, feminism

Introduction

In January 2021, a surrogacy scandal involving Zheng Shuang, an A-list Chinese actress, exploded on the Chinese internet. Zheng and her former partner allegedly hired two American surrogate mothers to bear their children, but the couple split before the children were born, and Zheng was subsequently accused of abandoning these two American-born babies. The scandal shocked many in China, and Zheng was widely criticized online for her lack of maternal instincts, but she was mainly condemned by China's state media, the mouthpiece of the ruling Communist Party, for her sidestepping of China's ban on surrogacy and seeking the practice overseas. Zheng's scandal has also sparked a national debate about the ethics surrounding surrogacy, with supporters applauding this practice for providing opportunities for infertile and same-sex couples to have biological children, and opponents warning that "the practice can lead to the exploitation and traffick-ing of women, the commodifying of the female body and children, and the deepening of inequality between rich and poor" (Nectar, 2021, para. 18).

This paper situates the surrogacy scandal and the accompanying Chinese public discourses regarding the ethics of surrogacy within the framework of examining the social ramifications of human reproduction technology and within a broader science fiction narrative exploring the motif of the relationship of technology-assisted human reproduction to human destiny. By integrating sci-fi narratives into the discussion of technology assessment practices, I emphasize the role of the literary imagination as a powerful reflective and anticipatory tool, helping people envision and negotiate the acceptability of possible social-technical reconfigurations before the technologies themselves come into existence.

The rapid advancement of new reproductive technologies has generated considerable public debate across the world. But as Durant, Evans, and Thomas (1989) pointed out, people's understanding of these technologies and the science behind them is likely to be insufficient. Therefore, it is likely that many people engaged in these debates draw on works of science fiction, which have "become part of our common cultural repertoire" (Mulkay, 1996, p. 158), as sources for their arguments. For example, Mary Shelley's *Frankenstein* (1818/2018), the world's first sci-fi novel, is often cited to support criticism or even condemnation of research on human reproduction. Mulkay (1996) observed that "the monstrous image of Frankenstein was repeatedly evoked by non-scientists in the press and in Parliament to endorse the proposal to establish strict control over research on human embryos" (p. 160).

Another reason that people often resort to science fiction for guidance appraising reproductive technology is the notion of technological determinism, which, according to Winner (1986), is a common theme in social discourse expressing the fear that rapid advancements in technology are outstripping moral rationality and are too often allowed to develop without oversight until it is too late (p. 9). In other words, social researchers are concerned that their role is limited to assessing the impact of technological innovations rather than proactively predicting likely consequences so that the public has a basis for giving or withholding support (Winner, 1986, p. 10). To challenge the assumption of technological determinism, people are urged to engage their imaginations to envision the future course and impact of innovative technologies. Therefore, science fiction is regularly adopted as a vehicle to “explore the consequences of contemporary and envisaged future scientific innovations along with the ensuing novel ethical and moral concepts” (Savona-Ventura & Grech, 2014, p. 105). Just as Miller and Bennett (2008) argued, “tools built on science fiction might serve as a means for building a reflexive capacity into the governance of technology” (p. 598).

Many studies have examined and confirmed the reflexive and anticipatory capacity of science fiction to explore both the upside and the downside of human reproductive engineering. For example, Bigman (2016) argues that Aldous Huxley’s *Brave New World* (1932) expresses both an interest in and an anxiety about the possibility and the extent to which new reproductive technologies would transform sex, gender, and the family. According to Savona-Ventura and Grech (2014), the *Star Trek* series “not only provides advanced warning of problems and issues that reproductive technology may eventually unleash but also proposes potential solutions to such problems” (p. 105). However, a preliminary search in the English-language academic databases and digital libraries yields a disappointing-but-not-surprising result. Most of these studies center on sci-fi narratives from Anglophone countries, even though concerns about how futuristic reproductive technology might determine the fate of the human race is a hot theme in science fiction around the world.

The aim of this paper is to help fill this gap by examining the reflexive and anticipatory capacity of an award-winning Chinese sci-fi story about reproductive technology and gender. The focal story of this examination is “In This Moment, We Are Happy” by Chen Qiufan, also known as Stanley Chan, a leading voice among China’s growing roster of acclaimed writers in the science fiction genre. The story was originally published in Chinese in *Dandu Reading* in 2019 and was translated by Rebecca Kuang into English and published on *Clarkesworld* in part-

nership with Storycom (Chen, 2019). Despite being a short story in length, it tells the different yet interwoven stories of five situations: a Chinese female entrepreneur who hires a surrogate to bear her child, an Indian surrogate mother who carries a baby for her client, a Japanese-American performance artist who is the first male in human history to conceive and deliver a child, a German lesbian couple who are the first to produce a child where they are both the genetic parents, and a secret organization with technology that completely excludes individual humans from participation in reproduction.

On April 24, 2021, “In This Moment, We Are Happy” won the Gold Award for Short Story at the 11th Global Chinese Science Fiction Nebula Awards. According to Yao Haijun, chairman of the Nebula Award Jury, Chen’s story was selected as the winner for its innovation in form, the cinematic qualities of its documentary format, and the writer’s imaginative treatment of technology while breaking through to new dimensions of science fiction (“The 11th Global Chinese Science Fiction Nebula Awards,” 2021). In addition to formal innovation, the value of Chen’s fiction lies in its bold unpredictability and experimental thinking about the implications of reproductive technologies, as well as its in-depth exploration of the intersection of reproductive technology and gender.

According to the World Health Organization (WHO), infertility and sterility will be the third-largest health issue worldwide in the 21st century, after cancer and cardiovascular diseases (Dovom et al., 2014). A recent survey reported that an estimated 40–50 million women and 45 million men suffered from infertility worldwide, and in China 10–15% of women were infertile or would need assisted reproductive technology (ART) treatment to bear children (Liu, 2015). However, there are still comparatively few large-scale ART centers in China and the rate of complications associated with pregnancy via in vitro fertilization (IVF) is much higher than that for natural pregnancy (Lu, Tang, & Dong, 2002). Since the inception of assisted reproduction technology in China, prevailing rules and cultural heritage have continued to influence attitudes toward the practice (Schenker & Shushan, 1996), and a variety of social, cultural, political, and one-child policy responses have restricted the number of IVF procedures performed annually (Qiao & Feng, 2014). Moreover, although the practice of IVF and cryopreservation are allowed, surrogate motherhood, embryo donation, and human reproductive cloning remain strictly prohibited in China (Qiao & Feng, 2014).

Chinese science fiction has long dealt with the hot issues of newly developed reproductive technologies and the concomitant redefinition of motherhood. As early as 1985, Wan Huankui’s short story “The Girl Who Gets Pregnant for Others”

was among the winning entries at the first Galaxy Awards. By today's standards, this is a realistic work that faithfully documents the impact of fertilization technology on women's bodies and parent-child relationships. In 2002, Zhao Haihong's short story "Baby I Love You" was nominated for the Galaxy Awards. From the unique perspective of a man acting as the surrogate "mother" to a virtual intelligent robot, this story reflects on parents' motivations in raising real-life children and what is the core of stable parent-child relationship. "The Matrilineal Clan of 1983," written by Fei Dao in 2007, tells the story of a man and a woman who fall in love and try to conceive a child in a matrilineal society where a woman can never create a new life with and for love. The story ends in the failure of both love and procreation, reflecting the limitation of love in solving the conflicts between the two sexes and the difficulties associated with procreation. In 2015, Miss Cynic's "Son of Promise" won the Galaxy Award for Best Short Story. The story explores the question of whether the natural bond between mother and child can be maintained at a time when gene editing technologies are applied to transform the bodies of human infants.

In this context, the five narratives embedded in Chen's "In This Moment We Are Happy" make the discussion inclusive and timely through his innovation of form and his understanding of the most advanced reproductive technologies as well as of postmodernist feminist theories. In this paper, I argue that the five narratives featured in Chen's story demonstrate the interdisciplinary nature of the reproductive technology debate and its movement across genres and discourses. The five are particularly well conceived to represent the global controversy over the ethical, moral, and gender implications of real and imaginary breakthroughs in human reproductive technologies.

Through a textual analysis of the five narratives, I first outline, with cues from the changing temporal settings, the new reproductive technologies that the author thought could emerge in a linear, progressive fashion, and then discuss how the emergence of these technologies might lead to a corresponding shift of reproductive roles and a subsequent redefinition of motherhood. Next, I demonstrate how the author adopts the innovative form of a documentary script to simulate the responses of readers, and by extension the publics they represent, to the emergence of unconventional reproductive roles. I argue that Chen maintains a seemingly objective and neutral attitude toward human reproductive technology, but also provides a realistic warning for his readers that discrimination and violence against participants in the new reproductive technologies could happen anytime and anywhere for a variety of socioeconomic reasons. Lastly, I argue that

Chen adopts a pro-feminist stance in his narration, which, I believe, is appropriate and powerful in that, for better or worse, women are likely to be most affected by the emergence of alternative reproductive agencies and the subsequent redefinition of motherhood.

Redefining Motherhood: Technology and New Reproductive Roles

As the timeline of the five stories proceeds from the present to the distant future, the complexity of the reproductive techniques featured in these stories escalates with the concomitant changes in the means and performance of reproduction. In this trajectory, the notion of motherhood, which traditionally has been culturally and legally established on genetic kinship claims, also expands to include a range of possibilities. Altogether, in his ambitious narrative Chen projects four major changes that the development of reproductive technologies has already brought or may be expected to bring to the continued generation of the human species.

The first and second stories are about surrogacy technologies that are already in practice today. Like two sides of the same coin, the first tells the story of a Chinese female entrepreneur, Wu Yingmian, who pays a high fee to a foreign surrogate mother to deliver her child, while the second tells the story of an Indian surrogate mother, Neha, who is generously compensated for giving birth to a child for her employer. In the first two stories, the roles of genetic mother, childbirth mother, and child-rearing mother are divided between two women, the surrogate playing the role of birth mother, and her employer playing the two roles of genetic mother and child-raising mother. In these two stories, one can see how the capital and labor market work collaboratively to re-allocate reproductive resources across the globe, ensuring that the rich can have biological children if they want, and the poor can commodify their bodies and wombs for a living. As Gena Corea (1985) predicted, the wombs of “non-valuable” women are used as breeders for the embryos of “valuable women.” Sandra Harding, in the context of her observations about science and race, also asserts that “the baby M case (in which the surrogate mother lost her battle for custody of the newborn) could be the forerunner of the use of poor and third world women’s wombs to produce children for economically advantaged European American couples” (1991, p. 203). Under the logic of the market, childbirth can be outsourced like any other household chore, which further deepens the inequality between the rich and the poor.

The third story is about artificial womb and male birth technology, which is still

a figment of the imagination today but may soon become a reality. K.O., a Japanese American performance artist, is described by Chen as the first man in human history to conceive and give birth to a child using artificial womb technology. While many accuse him of risking his life for a publicity stunt, K.O., shortly before he dies from complications caused by dystocia, points out that he voluntarily chose to save the baby because she was his beloved daughter, not an art project as his critics thought. Here the author seems to imply that even if K.O.'s original intention was to become famous or to satisfy his curiosity, after nine months of a long and difficult pregnancy, he had developed an emotional connection with his unborn child that was the same as a maternal bond. This deep connection motivated him to transcend his original selfish intention and embrace the selfless identity of a parent, whether mother or father, which emerged only when he was willing to sacrifice himself. K.O.'s feat and self-sacrifice may be interpreted as having profound significance for the course of human history: he broke through the gender barrier and expanded the scope of "motherhood" to include men by showing that a man too could generate and nurture new life and find meaning in the act of reproduction.

The fourth story is about same-sex reproductive technology. Parthenogenesis or single-sex reproduction is common in the biological world; for example, plants, invertebrates, and even some reptiles reproduce by parthenogenesis, but in the human world, the technology of same-sex reproduction remains in the realm of imagination and artistic creation. For instance, a Japanese artist presented a project of "speculative design" which stimulated discussions about the social, cultural, and ethical implications of emerging biotechnologies that could enable same-sex couples to have their own, genetically related children ("(Im)possible Baby", 2021). The artist analyzed the genetic makeup of a lesbian couple and fused their DNA data on a computer to visualize their potential offspring. Similarly, in Chen's fourth story, a lesbian couple, Hanna and Fatima, use genetic modification technology to fuse their DNA and produce a child that is genetically the offspring of both. Here the agents of reproduction are two females, with male participation completely excluded.

This fourth story primarily focuses on the social pressure imposed on the mothers while the social and political ramifications of the same-sex reproductive technology are largely left undiscussed. For example, do women gain more patriarchal powers when they assume the "dual-mother" role? Will this technology lead to a matrilineal society? If lesbians have access to same-sex reproduction, could gay men use it too? Could this technology bring about a future in which the gay nu-

clear family is a norm? These unanswered questions expose the ambivalence of the author's vision of same-sex reproductive technology and its socio-political ramifications. Far from being a straightforwardly utopian or dystopian vision of a matrilineal society or a future embracing the gay nuclear family, the story, as we can see, is equivocal in its treatment of both, appearing to be both welcoming and warning against such possibilities.

The fifth story is set in the distant future when a major reproductive recession has paralyzed the human world. Shiiva Lab's mysterious representative, code-named Mow45, describes the company's solution to the crisis of human survival, a technology in which human genetic materials are used to synthesize fertilized eggs and manufacture babies on a mass scale in underground labs. It is a technology that requires no personal involvement on the part of the person whose genetic material is used, and the composite genetic makeup of the babies will be determined by scientists. The story echoes the dehumanized nightmare of Aldous Huxley's *Brave New World* (1932), in which technology has taken over reproduction and transferred it from humans to machines, resulting in the mass manufacturing of human babies customized to serve designated social purposes. If such a technology were to be widely adopted, human society as we know it would cease to exist as the species would be on an express train to a post-human world that would completely "discard the heavy bonds of bloodline, family, race, and even ideology."¹ The prospect of this radical change raises many questions and concerns. For instance, are the experiments involved in developing such technologies ethical when many fetal deaths and stillbirths occur? Is an arrangement that produces babies as predesigned artifacts in place of naturally conceived human beings not only dehumanizing but evolutionarily detrimental? Would mass manufacturing of babies eliminate individual identity as the core of the meaning of life? Although the story does not go into details about the well-being of the neo-humans created in the labs, the fact that "only a third survived under the care of their adoptive parents" hints at a bleak future for this "gift generation". One can infer that the promise of each life as a creative unfolding cease when humans are interchangeable commodities manufactured in labs.

¹ All quotations and references are, unless otherwise indicated, from the source listed in the references, Chen, Q. (2019, August). In this moment we are happy. *Clarkesworld Magazine*, 155. Retrieved May 10, 2021, from http://clarkesworldmagazine.com/chen_08_19/.

Technology Neutrality and the Boundary of Technological Optimization

“In This Moment, We Are Happy” uses the innovative narrative form of a documentary script, first developed by the veteran Chinese American sci-fi writer Ted Jiang in his “Liking What You See: A Documentary.” Jiang’s story is a fictional account of the rhetoric surrounding a proposal to eliminate *calliagnosia*, a reversible procedure that strips away a person’s ability to see beauty. Ken Liu, another award-winning Chinese American sci-fi writer, was inspired by Jiang’s story to write “The Man Who Ended History: A Documentary,” a Hugo- and Nebula-award nominated story that delves into the public mindset in response to the revelation of Unit 731 atrocities in the Second World War (Yang, 2018).

The documentary script format provides readers with a multi-dimensional representation of contemporary views on the social ramification of reproductive technologies, representing the voices of people from diverse sectors of society. First, through the seemingly objective lens of the documentary, the reader is able to view the perspectives of each of the concerned parties, both the surrogate mother and her employer, both the doctor who operated on K.O. and the scientist who conducted the human genome experiment; all their opinions are presented, so that readers can see the multiple effects of reproductive technologies on human physiology, psychology, morality, and ethics, and witness the emotional entanglements they trigger. The author also uses the seemingly objective camera lens to represent the reaction of the public, such as the bar owner’s and his customers’ divergent reactions while watching the live broadcast of K.O. giving birth. Second, members of the public also express their opinions through various interviews. For example, the German public’s diverse views on lesbian single-sex reproduction are captured in informal street interviews. Third, the documentary script form provides readers with crucial background information by means of captions and embedded video materials, so that readers can make their own informed judgements. For example, the video materials added in the first story enable readers to understand the whole process of surrogacy and its disproportional requirements of female egg donors and male sperm donors. The supplementary video material for the third story shows that images of a male giving birth are usually presented as items of absurdity or comedy in films around the world, which is crucial for readers to have a deep understanding of the iconoclastic nature of K.O.’s decision.

The documentary script form also allows Chen to keep a certain distance from his fictional characters and to maintain a seemingly objective, neutral attitude toward the impact of reproductive technology. The author himself does not overtly

take a position on reproductive technology, presenting it as merely a tool, which may be used by different people for different purposes, leading to completely different consequences. In his stories, Chen intends to represent how human habitual thinking might obstruct the development and application of reproductive technologies. In particular, he seems to suggest that in the early stage of the application of reproductive technologies, people would resist its changes. In the words of MOW45, “humanity seems to have an almost pathological fear of this sort of change.”

This fear is typically manifested in the lack of empathy, acts of discrimination, verbal abuse, and even physical violence targeting the first few humans who are willing to try new reproductive technologies. Surrogate mother Neha’s husband Rajan is “furious at first,” considering surrogacy an “unclean act” equivalent to “committing sacrilege” K.O. is accused by the director of Netflix’s live broadcast of being selfish because he risked the life of his child to complete his own body art project. The media cares only about obtaining the controversial but above all lucrative male childbirth broadcast rights from K.O., and the patrons in the sports bar watching the live broadcast boo him on racial and homophobic grounds, expressing their distrust of the technology that has seemingly deprived K.O. of his male identity.

The lesbian couple, Fatima and Hanna, are attacked by both the media and terrorists for having their own child, genetically related to both. The couple’s daughter is called “The Purest Girl” by the media, a label with erotic connotations satirically applied to porn stars. Fatima worries that such a label will only subject the girl to a more sinister male gaze because it implies that their daughter would also choose to procreate only with other women and avoid polluting her bloodline with men. Death threats and actual attacks by terrorists bring the already pessimistic Fatima to the brink of physical and mental collapse, and even the originally optimistic Hanna begins to suffer from insomnia, nausea, nosebleeds, and a recurring hormonal disorder. Worn down by the hostile environment, they start to lose faith in the parthenogenetic technology itself and to question whether they have been selfish to bring their child into the world in this way. Although they did so out of love, their daughter might suffer from society’s rejection. The author never gives the unborn daughter a voice in the story, but one can infer that her attitude and experience might be affected by the cultural variability and historical contingency marked by the nature of her inception, as well as the relationship between gender and power in the society in which she lives. The dubiousness of her prospects is predicted by the fear and agony of the lesbian couple, which reflect a bleak reality

in which the long reign of patriarchal and ultra-masculinist values has left a very limited space for women to explore a feminist alternative facilitated by the advancement of reproductive technologies.

The last story takes place at a time when humankind is faced with a crisis of reproductive recession, and people desperately turn to reproductive technology to rescue the human race. This hope comes at a time of increasing acceptance of more radical reproductive technologies. According to the character MOW45, there are many human groups interested in the technology of genetically synthesizing fertilized eggs, but most are powerful and interested in the research for their own geopolitical or religious purposes. As Chen describes:

Meanwhile, we have been inundated with requests, mostly from some of the most powerful groups on Earth: extremist sects who want to create physiological distinctions among humans; transhumanists who want to design a race of perfect super-babies; those who want to reserve our services to particular regimes or races so that they may achieve geopolitical dominance through superior reproductive capability.

On the other hand, the habitual fear of new technology persists, with Mow45 claiming that the Shiiva Lab's Panamanian base had been attacked by militants and hundreds of embryo samples destroyed, so their research had to be transferred underground. For security reasons, Mow45 concealed all information that would reveal their location during the interviews.

These stories remind readers of the problems we face when discussing the development and application of reproductive technology: Is it ethical to veto it from a moral and ethical point of view? Should the technology be terminated while it is still in its infancy, or should it be given time in which to develop and optimize? If the latter, where is the boundary of optimization? In fact, the story's title, "In This Moment We Are Happy," suggests that reproductive technologies at least begin as a source of hope and happiness. At the end of the story, the author also shows how Neha, Wu Yingmian, Fatima and Hanna, and even K. O. experience the joy of becoming a new parent when a child is born.

However, the story also shows how they meet with hostility from the public and how the technology is attacked, largely because people do not fully understand its origin and fear its consequences. Therefore, the author appears to be calling for a neutral stance on the technology on the one hand and legislation to ensure its ethical regulation on the other hand. Although the technology itself is only a tool, the

social ramifications of how the tool is or may be used raise critical cultural issues, and these non-technological issues will determine the outcomes of using or not using the technology. The idea that technology is itself endowed with such qualities as objectivity, rationality, transparency, neutrality, or universality is itself a cultural construct. In fact, all these values and judgments are embedded in the first decisions of what kinds of technology to research and develop. Therefore, one of the merits of the story is its call to readers to think about the ethical supervision and safety legislation that must regulate any new reproductive technology. If it can lead to effective social and legal support for human welfare, then the author's contribution is meaningful beyond its literary value.

In addition, the author uses the last story to focus on the issue of the boundary at which the reproductive technology is judged to have been optimized and should go no farther. The problem of gene synthetic technology for human society lies in its potential to breach the boundaries of optimization, which, as the author implies, can lead to unpleasant or disastrous consequences. If the earliest advances in reproductive technologies were meant to fulfill the dream of having children of one's own despite issues of fertility, sexual orientation, or gender, as the technologies evolve, there will be optimization options. As MOW45 says, "Machines will draw upon the gene pools of a billion humans as well as all of the possibilities that might arise after thousands of future generations" In this machine-dominated world, human genes would be selected through algorithms intended to optimize possibilities, inevitably resulting in the production of batches of neo-human children engineered to meet certain standards, eliminating differences among individuals and the major tool of evolution, diversity, and as the diversity of human genes disappears, the species loses its vitality and fails. Just as Sandel (2007) argued, the drive to enhance human nature through genetic technologies is flawed because it represents a bid for mastery and domination that fails to appreciate the natural character of human powers and achievement.

Gender Consciousness and the Deconstruction of Motherhood

"In this Moment We Are Happy" has a pronounced gender consciousness and raises a series of gender issues that may emerge with the advancement of reproductive technology: if reproductive technology matures and is widely used, will it liberate women from childbearing and rearing, and if so, will that liberation be a blessing? On the other hand, if single-sex reproductive technology is successful, will women be enslaved as autonomous reproductive machines, or will they devel-

op a matrilineal society with no need for fathers and, by extension, for men except for their labor? Or if we enter the world of “fluid gender” or genderless humans, will the whole epistemology based on male-female dualism be dismantled, and if so, what will replace the traditional binary gender model?

Since the 1970s, feminism has put special emphasis on reproductive freedom and refuting the claims that because a woman has a womb, she is destined to give birth, and be, not just a mother, but a good mother (Neyer & Bernardi, 2011). Feminists believe that women should have the right to control their own bodies and freely decide whether, when, under what circumstances, and how to have children (Neyer & Bernardi, 2011). The seizure of control of reproduction as a means to eliminate biological inequalities between women and men was proposed by feminist activist Shulamith Firestone in *The Dialectic of Sex: The Case for Feminist Revolution* (1970/2015), in which she advocates a revolution in which women take control of new technologies to liberate themselves from their wombs and natural reproduction, thereby facilitating gender equality. Firestone radically states that “artificial reproduction is not inherently dehumanizing. At [the] very least, development of the option should make possible an honest re-examination of the ancient value of motherhood” (p. 181).

Since the 1980s, in tandem with the rise of increasingly effective birth control, a new wave of feminism, and shifting perspectives on gender identity, a growing number of women in Western societies have voluntarily remained childfree (Lewis, 2019). However, the story of the female entrepreneur Wu Yingmian indicates that Chinese society’s deep-rooted trend of tying motherhood to femininity still prevails today. Apart from Wu’s own maternal instincts, which were criticized for being deficient, there were two probable reasons for her to want children. One was the pressure of public opinion. Despite being a successful career woman, Wu would still be regarded by the Chinese community in which she lives as falling short in her life for not having children, which suggests that the essentialist conflation of womanhood with motherhood is still prevalent in today’s world and has a tremendous impact on cultural and social images of what constitutes a good woman (El-Bushra, 2007; Peterson & Engwall, 2013). In addition, Wu’s family also put a lot of pressure on her because children are essential to property inheritance under the system of private ownership. At the helm of a huge enterprise, Wu must continue the bloodline by producing an heir to the family’s wealth.

Wu’s choice of surrogacy instead of natural childbearing, while partly personal, was also complex. As her mother had died in childbirth, her father was very resistant to allowing his only daughter, already in a highly demanding career, to risk

having children naturally, so the choice was also a reflection of today's reproductive dilemma for career women. As Wu points out, career women are not only under pressure from family and society to have children at the right age, but also face fierce competition in the workplace. As she observes, "Job competition is so fierce right now that when you come back from maternity leave, there's nothing left for you." Despite being the CEO of a large enterprise, Wu, a female entrepreneur, is still exposed to gender inequalities in the workplace. The challenges and barriers Wu and other career women face include, but are not limited to, a hyper-competitive masculine work culture, gendered stereotyping, and the difficulties of combining work and family life (Coleman, 2020).

Wu's story also reflects the inequality between the sexes in the surrogacy process. The process of egg retrieval risks physical and psychological harm to the mothers. As a genetic mother, Wu needs to be injected with "three different shots every night to stimulate egg maturation" and during egg extraction, "a needle-shaped pipette the length of an A4 sheet of paper will be inserted through her vagina until it reaches the ovaries." The surrogate mother also needs "regular injections to regulate her estrogen levels." Wu once said sarcastically that the cartoon woman in the surrogacy company's animated film, which explains the entire surrogacy process, would be better if replaced by a mother hen. Isn't she just an "egg-laying factory" herself? Meanwhile, Wu's husband's involvement can be summed up in one simple sentence. "The male donor will contribute his semen at the same time."

As the Italian philosopher Rosi Braidotti pointed out in her 1987 essay "Des organes sans corps" (Organs without bodies), the human body has become very fragmented with the development of biotechnology, the premise of which is that the body can be broken down and treated as an assemblage of various parts rather than an integrated whole. Under such a premise, Braidotti (1987) argued, some people assume that the constant flow of organisms represents equivalence among the various parts of an organism, the logic being that all parts are equally and freely available, whether as an organ donation or the donation of reproductive material. According to this logic, sperm donation is equal to egg donation, which would lead to the conclusion that men's and women's contributions to reproduction are equal. Braidotti (1987) rejects this view and emphasizes the importance of sexual difference in reproductive ethics, namely that men and women experience reproduction very differently. Braidotti's argument is highly consistent with the spiritual core of the story when the author points out, in Wu's voice, that sperm donation should not be considered the equivalent of egg donation, because once the

equivalence is made, the sacrifice of women is completely ignored, and this is very unfair to women.

Whether surrogacy is reasonable and should be legal is one of several ongoing controversies in academic circles and public opinion. These controversies have to do with different perspectives on the relationship between the fetus and the mother, which, traditionally, is imagined in two opposing ways. One is a component model, in which the fetus is considered a part of the mother; the other is a container model, in which the mother is considered a container of the independent fetus, serving only as an incubator (Kingma, 2019). These two perspectives provide completely divergent views of surrogacy. If the fetus is a part of the mother, like an organ, then surrogacy is a type of organ trafficking, both unacceptable and illegal. If the mother is an incubator, then surrogacy is merely a pregnancy service that involves renting out the womb, making it an acceptable and legally sanctioned business transaction.

The story of Neha captures a surrogate mother's mental journey when she rents out her womb, revealing, through objective film footage, how the surrogate mother's body is manipulated and exploited by surrogacy agencies applying the logic of the market. The story emphasizes, through Wu's words, that surrogacy carries a very high legal risk for all parties involved, and that the legal rights of surrogate mothers, who are often members of disadvantaged classes, are often not guaranteed, leaving them at the mercy of their employers. The story also condemns, through Neha's testimony, the discrimination against surrogate mothers by their employers on the grounds of their age, education level, socio-economic status, and even the sex of the resulting baby; for example, discrimination against the surrogate mother for having a girl is not uncommon in this line of business. One comparison worth noting is between Neha's treatment when she was pregnant with her own children and had to do heavy manual labor without medical care or proper nutrition and the special prenatal care she received as a surrogate, when she received routine tests and nutrition supplements from the nurses hired by the surrogate agency. Unsurprisingly, such concern for her health and nutrition was restricted to her "nine-month journey" as the vessel of a more privileged woman's child, whose fetal development was the focus of close monitoring, and no one really cared about Neha's welfare during or after the pregnancy. As Alison Bailey (2011) observed, "If the resources directed at a pregnancy are a strong indicator of the pregnancy's social value, then one might infer that Indian women's reproductive health and rights are tied to the social or market value of the fetus they are carrying" (pp. 735-736). In the context of her observations about the re-

productive justice of surrogacy work in India, Bailey also observed that “A morally sensitive understanding of Indian surrogacy suggests that surrogate workers face more than surrogacy-or-poverty moral dilemmas: the compulsion ... to take on surrogacy work is the product of deep injustices” (p. 736).

The story of K.O. as a man opting to give birth can also be interpreted in various ways from different perspectives. It may be interpreted as representing men’s collective imagination and their desire to bypass the female role in their self-reproduction. In fact, since the Age of Enlightenment, there has been a stubborn contempt for the mother in the western philosophical, literary, and scientific traditions, which have essentially held that the mother or the matrix is nothing more than an intelligent incubator for the next generation of humans, while the father is the source of the human soul, vitality, and creativity (Greenfield, 1995). Closely related to this perception is a persistent fantasy of male reproductive autonomy in the Western literary and scientific tradition. The first science fiction novel in the history of world literature, *Frankenstein* (Shelley, 1818/2018), can be taken as an example. The protagonist of Mary Shelley’s novel, Frankenstein, is a male scientist who uses parts from stolen corpses to create a man, featured in subsequent horror movies as a hulking monster with visible seams and nails holding him together. When the monster, rejected by human society and lonely, begs Frankenstein to create a female companion for him, Frankenstein agrees at first, but finally refuses out of fear that the female monster may either crossbreed with a human and initiate a line of hybrid monsters or breed with Frankenstein’s male monster and generate their own species of brutal monsters. Both concerns reflect the fear and rejection of the power of female reproductive capability by a male scientist obsessed with exploring the possibilities of male parthenogenesis. In this respect, is K.O. any different from Frankenstein?

However, people who had a favorable attitude toward K.O.’s actions would think his attempt was actually positive for achieving gender equality. By installing an artificial womb to transform his body, K.O. was able to experience an authentic female pregnancy and delivery, including all the physical pain and hormonal disturbances involved in the process. This personal experience was far more powerful than any narratives and other methods by which a man might try to vicariously experience pregnancy and childbirth. By suggesting that only through the actual experience could K.O. truly become a “mother,” the story emphasizes the noble self-sacrifices associated with motherhood. As Katharine Dow (2017) argues, “Good mothering is thought to entail self-sacrifice, selflessness and a strong sense of responsibility; this is compelled by the feelings of attachment that women are

expected to form with their children from pregnancy onwards” (p. 101). This does not mean biological motherhood is considered the absolute and “real” motherhood, while rendering other forms of motherhood (e.g., adoptive, foster mothering) inauthentic. However, it does emphasize that mothers who have carried growing fetuses and given birth can experience a special and deeply mysterious bond with their children. This bond is robust and closely associated with the physical experience of maternity, but research has shown that people may disagree about its specific form and effects (Dow, 2017).

In the fourth story, judging from the social resistance encountered by the lesbian couple who participated in single-sex reproduction, it is clearly implied that a patriarchal society views women as reproductive tools for males rather than as whole and independent human beings with rights over their own bodies, including the apparatus of reproduction, which threatens the stability of the male-dominated social hierarchy. Once a woman wants to break away from subordination to men and take the decision to bear children into her own hands, she will encounter rabid resistance from the patriarchal society. Reasons for resistance may include blasphemy from a religious perspective and damage to genetic diversity based on science, but the major reason remains unspoken, that is, males are worried that they may lose their place in reproduction and become “a dispensable gender” (Zou, 2020, p. 622). However, the author uses the words from the interviewed passers-by to reject the allegation that female parthenogenesis would impair genetic diversity, pointing out that both mothers would contribute genetic sequences, which guarantees that the child will inherit a unique combination of genes. The author also uses Hanna’s words to argue that the frequent absence of men in bi-sexual parenting gives women the legitimacy to exclude men from the reproductive process.

The last story introduces the concept of “fluid gender or genderless subject” in a future world where “the new humans will be stripped of the inefficient capacity for sexual reproduction. Everyone will have the freedom to determine their own sex. Or they may be entirely sexless. These choices will be entirely up to them.” Throughout a natural pregnancy, the mother interacts with the baby as it develops within her body, and she further establishes her bond with the baby through breast-feeding, all of which provide the child with both physical and spiritual care. What will happen when all nurturing is reduced to laboratory procedures? What effect does the absence of a biological mother have on a child who was mass-produced in a laboratory? How will it affect the psychological or physical development of these children? In the story, these lab-born children are raised in ordinary human families. Will they gradually assume a normal range of human emotions, or

will they remain different from natural-born children as they grow up? At the end of the story, Chen reveals in the format of captions that “Forty-nine neo-humans were born local time 8:08 on August 8, 2038. They are collectively known as the ‘gift generation.’ Among them, only a third survived under the care of adoptive parents. These survivors altered the course of human history.” The story ends abruptly here, leaving readers to ponder for themselves how the survivors of this batch of lab-born children could change human history.

The concept of fluid gender has previously appeared in some science fiction as a model that eradicates the duality of male and female genders. For example, Ursula K. Le Guin’s 1969 science fiction novel *The Left Hand of Darkness* (1969/2012) is based on the premise that people are inherently bisexual, and that when they interact with another person during estrus, they are reassigned gender roles in a fluid relationship. However, regarding childbearing, it is still a woman who assumes the reproductive function. Chen’s story goes one step further by depicting the production of lab-born children with no apparatus for biological reproduction, thus freeing them from sexual and reproductive functions altogether. People no longer have the obligation to carry on their family line and are free to choose either gender or have no gender at all, and it is dubious whether sex, if it still exists, has any meaning at all. With the development of reproductive technology, everyone’s options will be wide open, but will that be experienced as freedom, or will humans feel trapped in a maze of pointless choices? The author seems to raise questions more than he provides answers in this story.

Conclusion

Science fiction narratives are often used to explore ethical and moral concepts related to real and imagined scientific innovations. This strategy enables sci-fi writers to safely challenge conventional norms and values and suggest novel approaches to the philosophical and moral issues related to the relentless advance of technology. The five narratives encapsulated in Chen’s short story, which deal with various aspects of reproductive possibilities in the wake of significant breakthroughs in reproductive technology, provide a fictional but thought-provoking resource for anticipating the issues that these technologies may unleash. Chen, speaking through Mow45, affirms the predictive power of science fiction and its imaginative contribution to preparing for future developments in reproductive technology. Through the unfolding of the five stories, Chen creates a vivid picture of a future in which the reproductive process is becoming increasingly fragmented

and diversified because of the radical changes that reproductive technology may bring about, raising such issues as whether life can be commercialized, where the ethical boundary of technological optimization lies, and how the separation of sexual and reproductive functions affects the traditional dualistic model of gender. These stories provide a useful framework for robustly and creatively grappling with present and future ethical ramifications of increasingly sophisticated reproductive technology and negotiating a socio-technical contract that benefits all of humanity.

Finally, “In This Moment We Are Happy” also deserves recognition for its international consciousness and vision. In the context of globalization, themes of technology and reproduction are of vital interest to an international readership, and by presenting protagonists who come from all over the world, Chen provides narrative space that exceeds the national boundaries of China and extends to India, the United States, Germany, Indochina, and other countries and regions. Thus, this Chinese science fiction story rises to the level of world literature by providing a critical vision of universal human experience. However, because it is a short story, Chen is limited by its length from deeply exploring all the issues related to reproductive technology it raises. Instead, he generates more questions than answers in his story. Taking as a metaphor the concept of “the void” or “emptiness” as essential to the composition in traditional Chinese painting, perhaps we should treat the author’s silences as areas deliberately left unfinished to provide readers with a space for imagination and action in the real world.

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