

Emancipation on thin ice

Women's autonomy, reproductive justice, and social egg freezing

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Abstract

A growing number of women in different countries are freezing their eggs as a way to preserve fertility not just for medical reasons, but for what have been referred to as 'lifestyle' or 'social' reasons. Ethical debates so far have often focused on reproductive autonomy and gender inequalities in society. Based on a critical analysis of the available studies that explore women's experiences, we conclude that women's choice to freeze their eggs is much more ambiguous than mainstream approaches to bioethics usually suggest. Furthermore, we point to a gap in the literature of social egg freezing regarding issues of reproductive justice, including the multiple and intersecting structural conditions that govern who has access to this technology, and tease out some issues that still need to be further explored, such as the outcomes and quality of treatment for non-normative users. Expanding the debate with an intersectional analysis makes visible, as we demonstrate, how techniques such as social egg freezing fit into, and contribute to the propagation of, neoliberal gendered, heteronormative, and racialised societies.

Keywords: assisted reproductive technology, bioethics, feminist theory, social egg freezing, reproductive autonomy, reproductive justice

Despite some opposition with regard to its lack of effectiveness and the promotion of false hope, egg freezing rapidly grew into a regular procedure in several clinics. Emerging research indicates that this procedure is becoming a socially acceptable option for women across Europe, the United States, Australia, India, and the Middle East (Stoop, Nekkebroeck, & Devroey, 2011; Soliman, Khaki, Al-Azawi, & Al-Hasani, 2012; Hodes-Wertz, Druckenmiller,

Smith, & Noyes, 2013; Allahbadia, 2016; Pritchard et al., 2017). Oocyte cryopreservation was first developed in the late 1980s for women who had been exposed to mutagenic risks (such as radiation and toxic substances) during cancer treatment but is now increasingly used by women who are anticipating an age-related decline in fertility (Argyle, Harper, & Davies, 2016). Egg freezing implies hormonal treatment to stimulate the ovaries, egg retrieval under sedation, and the freezing (i.e. vitrification) and storage of mature eggs in the lab. This procedure is only possible in fertility clinics that have their own egg bank or work together with private cryobanks. It costs between €2,500 and €3,000 for one cycle, and is not covered by public healthcare if there are no clear medical indications such as a diagnosis of cancer. In some European countries, such as France, Austria, and Malta, it is even forbidden by law to use oocyte cryopreservation for non-medical indications (Alteri, Pisaturo, Nogueira, & D'Angelo, 2019). The term 'social egg freezing' is commonly used to describe the use of the technique for so-called 'lifestyle' or 'social' reasons (Savulescu & Goold, 2008).¹

Social egg freezing is being declared as a 'reproductive revolution', and compared to the introduction of the birth control pill in the early 1960s (McDonald et al., 2011). Yet, the impact of social egg freezing for women's liberation remains subject to feminist controversy. On one side of the spectrum, liberal feminists, joined by bioethicist and clinicians (Goold & Savulescu, 2009; Homburg, van der Veen, & Silber, 2009; Mertes, 2013), argue that techniques such as egg freezing offer women more opportunities to organise their lives and therefore enhance gender equality in society. Meanwhile, others argue that egg freezing may do more harm than good in terms of gender equality because it pressures women to comply with the demands of a male-oriented labour market and pronatalist ideologies (Petropanagos, 2010; Shkedi-Rafid & Hashiloni-Dolev, 2012; Daly & Bewley, 2013; Cattapan, Hammond, Haw, & Tarasoff, 2014). In contrast to popular narratives about social egg freezing, which portray candidates as selfish, career-pursuing women, studies have found that users usually voice concerns about intimate relationships (Inhorn et al., 2018b). Furthermore, researchers also showed that access to this assisted reproductive technology remains largely limited to women with substantial financial resources (Baldwin, 2019). This indicates that women's experiences regarding how the technique enhances autonomy or gender equality should be considered much more critically than existing debates have allowed for (De Proost & Coene, 2017).

Since the early 1980s, an increasing body of bioethics literature has analysed the development of Assisted Reproductive Technologies (ART).

A stream of feminist theorising criticises the narrow conception of autonomy defined in terms of securing informed consent (e.g. Beauchamp & Childress, 2012) that is common in mainstream bioethics. Different suggestions have been put forward to reconceive autonomy in ways that would give fuller consideration to the agency of women by elucidating their lived realities. Several scholars (Sherwin, 1998; Mackenzie & Stoljar, 2000; Donchin, 2001) have explored an alternative interpretation of autonomy that is built around a relational conception of the self, and which attends to the effects of oppressive or unequal gender structures on an individual's preferences, choices, and capacities. Other authors (Chrisler, 2014; Ross & Solinger, 2017) have developed a broader conception of 'reproductive justice' that incorporates the social, environmental, political, and economic contexts that impact on women's abilities to raise children in a healthy environment. Seeking such a fuller justice-oriented approach forces scholars to move beyond individual notions of reproductive autonomy and to face politicised problems such as poverty and discrimination (Johnston & Zacharias, 2017).

This paper first provides a critical review of existing empirical studies on social egg freezing. Engagement with the subjective experience of current users is based on feminist approaches to bioethics, which claim that good, normative ethical judgements are insurmountable without empirically based knowledge about the actual moral life of women (Scully, 2018). We selected empirical articles from different databases (Web of Science, Scopus, and PubMed) using multiple search strings (Oocyte cryopreservation, Egg freezing, and Fertility preservation) that were published between 2008–2018. Strictly technical medical explanations were excluded, and we selected articles for further review that covered ethical, gender-related, and cultural aspects of social egg freezing. This resulted in over 70 articles and some of the most relevant are included in the references. Most papers were published in journals that cover research on human reproduction and/or social issues. The research presented in these articles described the experiences of the pioneering women who used egg freezing, as this phenomenon has only recently, around 2010, emerged as a social practice. Furthermore, the demographic profile of these women from mostly Europe, the United Kingdom, and America is predominantly white, heterosexual, and middle class. It is important to bear in mind how women's experiences are shaped by their privileged social location.

In the first section, we describe what these studies tell us about the experiences of women who currently use this technique. Although these studies indicate that women mostly experience it as empowering, the technique

is also found to be less liberating and imperative in a number of ways. In the second part, we discuss how these findings are relevant to mainstream theoretical understandings of autonomy and feminist debates on oppression and emancipation. In contrast to the extensive scholarly engagement with autonomy, remarkably little research has delved into questions of social justice related to social egg freezing. Therefore, in the last part, we point out how the complexities of an intersectional analysis are largely neglected in scholarly and societal debates about this topic and show how the framework of reproductive justice enables us to make visible how techniques such as egg freezing also fit into, and contribute to the propagation of, neo-liberal gendered, heteronormative, and racialised societies.

Findings from the empirical literature

Empowered freezers or technological and genetical imperatives?

Intuitively, the technology of egg freezing seems to offer women more reproductive choice and a sense of control over their lives and bodies. Several authors (e.g. Gould and Savulescu, 2009) argued that egg freezing empowers women with the opportunity to defer their childbearing years, which is less of a problem for men. A survey that was sent to 478 women who underwent social egg freezing at a New York fertility centre found that 53 per cent deemed the experience empowering, whereas 36 per cent found it empowering as well as anxiety producing, and six per cent purely anxiety producing (Hodes-Wertz et al., 2013). Another study (Göçmen & Kılıç, 2018), based on semi-structured interviews with 21 women in Turkey, confirmed the empowering potential of social egg freezing. Participants believed that they would have a better chance of a long-term relationship in the future with this option and therefore felt more relaxed about their reproductive decision-making and finding a suitable partner. Brown and Patrick (2018) also reported that egg freezing was appealing to their 52 participants, all of whom lived in metropolitan areas of the United States, because it created a sense of control and agency over their partnership and parenthood trajectories. However, several studies (Myers, 2017; Carroll & Kroløkke, 2018) demonstrated how this agency is constitutive of a neoliberal ethos that expects individual women to be responsible for risk-managing their own reproductive futures by forms of self-investment. Baldwin (2018) noticed that, when notions of taking action and control were reflected in the decision-making process, participants often cited liberal values of

responsibility, self-actualisation, and self-determined action. Furthermore, in the anthropological research of Romain (2011), egg freezers often used economic models of investment and calculated reasoning to frame their decisions. In the same vein, Waldby (2015a) underlined the recurring motif of insurance in the descriptions of egg bankers. This consumerist logic may account for the affective sentiments associated with this act: a heightened sense of control and empowerment. However, given the modest success rates of egg freezing and the great deal of uncertainty associated with it, Mertes and Pennings (2011) suggested that a lottery ticket would be a better metaphor than that of an insurance, especially for women who are freezing in their late-thirties and older.

The feelings of control provided to women are further complicated by the obligatory character of the procedure described in the narrative accounts of women who report difficulties and discomfort in resisting this technique. The compelling nature of this technology manifests itself in the anticipated decision regret, which is often a significant factor in the decision to undergo social egg freezing. A survey conducted by Greenwood, Pasch, Hastie, Cedars, and Huddleston (2018) showed that one in two women had some degree of decision regret following this intervention. Other empirical studies have also underscored the fact that participants reported a kind of fear of regret if they did not make use of the technology; they believed that, if they were unable to conceive in the future, they would possibly regret their earlier decision and blame themselves, or be blamed by others, for their resulting infertility (Witkin et al., 2013; de Groot et al., 2016; Baldwin, 2018). Fear that they would regret later in life that they did not take action has also been reported in couples undergoing IVF as a reason to use medical technology, even when success cannot be guaranteed (Tijmstra, 1987; Franklin, 1997). The technological imperative, namely the view that a certain technology should be used since it is available, can be associated with the phenomenon of anticipated decision regret and anxieties related to infertility (Hofmann, 2002). Moreover, recent evidence from the United Kingdom and Belgium suggests that almost all of the eggs from social egg freezing cycles are still in storage (Maes, Nekkebroeck, Tournaye, De Munck, & De Vos, 2018; Grtin, Shah, Wang, & Ahuja, 2019).

In addition to reducing the risk of future regret, this technology also promises access to genetic motherhood by managing the risk of being unable to have healthy and genetically related children. Martin (2010, p. 533) therefore speaks of 'the genetic imperative' in this debate and ironically remarks that egg freezing 'provides a perfectly matched egg donor: namely, oneself'.

Others also stress that geneticism (Petropanagos, 2017)—a social bias in favour of genetic motherhood—cannot be overlooked in the use of this technology. The decision to freeze eggs seems to be a ‘refusal of more pragmatic, efficient reproductive options’ such as egg donation from a younger woman or sperm donation, due to prioritisation and a genuine desire of genetic continuity with their (future) partner and their future child (Waldby, 2015b, p. 478).

Heteronormative freezers and intensive mothering

Carroll & Kroløkke (2018) found that their participants in the United States maintained a particular normative understanding of love, defined as ‘finding the right guy’ and establishing a nuclear heterosexual family. This finding is supported by survey research (Stoop et al., 2014a; Hammarberg et al., 2017), and interview studies in the United Kingdom, Turkey, and Israel (Baldwin, Culley, Hudson, Mitchell, & Lavery, 2015; Inhorn et al., 2018b; Kılıç & Göçmen, 2018). Some studies also suggest that gender-based socio-demographic disparities, such as the declining number of university-educated men and women’s higher expectations for egalitarian partnerships, are the driving forces behind highly educated professional women’s decisions to undergo egg freezing (Inhorn et al., 2018a). While the desire to live up to the expectation of a heteronormative life course may exclude other forms of parenting, such as single parenting, after some years of visiting a fertility centre for social egg freezing, women appeared more likely to consider single motherhood through the use of donor sperm (Schuman, Witkin, Copperman, & Acosta-La Greca, 2011; Stoop et al., 2014a). The foregoing studies thus seem to suggest that egg freezing can be a kind of an intermediate step towards single parenthood or involuntarily childlessness. Related to this, most current users of egg freezing in qualitative research appear to have clear ideas about how they would want to ‘do motherhood’ and consistently describe ideal approaches to motherhood that conform to Hays’s (1996, p. 54) definition of intensive motherhood as ‘child-centered, expert-guided, emotionally absorbing, labour-intensive, and financially expensive’ (Baldwin, 2017, 2018; Myers, 2017). Different candidates expected or anticipated that motherhood would require a complete reorganisation of their lives and an all-encompassing emotional and physical investment often associated with typical female characteristics such as sacrifice and altruism. However, women who freeze their eggs are not per se committing themselves to motherhood but may instead be delaying the need to decide about it (Jackson, 2018).

The dialectical nature of reproductive autonomy

In traditional liberal approaches to bioethics, the decision-making of persons is usually perceived as an individualistic and procedural matter. Decisions are considered 'autonomous', and, by extension, morally 'right', if individuals satisfy the following criteria: they are free from direct constraint, exercise self-governance, and have sufficient understanding of the presented information (Beauchamp & Childress, 2012). Relying on this framework, several authors (Dondorp & De Wert, 2009; Mertes & Pennings, 2011; Bernstein & Wiesemann, 2014) have concluded that the technology of egg freezing enhances reproductive autonomy, assuming that the availability of choices enhances a person's autonomy. However, this conception of autonomy, which is also a predominant feature of neoliberal discourses (Mackenzie, 2018), has been criticised by feminist bioethicists for its failure to address contextual factors, implicit biases, and power imbalances (Donchin, 2001; McLeod, 2002) and its masculine assumption that 'human beings are capable of leading self-sufficient, isolated, independent lives' (Mackenzie & Stoljar, 2000, p. 6). Reproductive autonomy can therefore not be understood as separate from oppressive social environments and should focus on removing such barriers or empowering all through social restructuring rather than paternalistic protection or simply offering more options (Ho, 2008). As evidenced in the previous section, social egg freezing takes place in a grey zone of reproductive decision-making that is both influenced by relationships (or the lack thereof) and the broader gendered social context. In this respect, egg freezing is neither inherently liberating, nor entirely oppressive for women and often produces contradictory effects bound up with sexuality and gendered identities. By attending to the dialectical nature of this technology (Parks, 2009) instead of relying on dichotomous explanations in terms of choice, the conceptualisation of autonomy moves away from an 'either/or', 'good/bad' capacity towards the idea of a relational spectrum along which to plot women's autonomy. Approaching this issue from the ambiguous borderlands of cryopreservation enables a more nuanced understanding of the relationship between autonomy and coercion. As Van de Wiel (2014, p. 13) further points out, some women may choose to freeze their eggs 'not out of reproductive desire, but out of reproductive ambivalence'. Social existence is more fragile, dynamic, and ambiguous than some traditional autonomy theorists assume, and new types of empowerment can often be bound up with new forms of social precariousness for women. For instance, women who can draw on enough financial resources may be able to comply with neoliberal expectations of

personal responsibility for reproduction and enact a form of autonomy by acting and planning their reproductive futures. However, such choices do not operate in a social vacuum and are the result of various factors and discursive forces that are often outside of the individual woman's control. As motherhood is still seen as an integral part of the 'normal' female identity and is highly loaded with cultural and normative narratives, which relate to proper timing (Sevón, 2005), egg freezers may seem to reinforce rather than transgress and challenge such gender roles and traditional couple-based approaches to parenthood. Therefore, attending to the multiple and intersecting structural conditions is crucial and directs us towards social justice issues that should go hand in hand with considerations of relational autonomy (Sherwin, 1998). However, most scholarly articles explicitly engage with reproductive autonomy and, so far, little research has addressed questions of reproductive justice (e.g. Mohapatra, 2014).

Re-thinking social egg freezing through reproductive justice

The European Society of Human Reproduction and Embryology (ESHRE) has regarded the option of social egg freezing as an important step towards greater reproductive justice for all women (Dondorp et al., 2012). This universalistic way of identifying women, however, hides the exclusivity of the procedure and is highly peculiar in relation to the original meaning of reproductive justice (Bhatia & Campo-Engelstein, 2018). The concept of reproductive justice was brought about three decades ago by women of colour in the United States, as a reaction to the prevailing tight view of reproductive rights and a pro-choice framework within the abortion rights movement. It turned into an intersectional movement under influence of the activist group SisterSong, formed by sixteen organisations of women of colour from four different communities (Native American, African American, Latina, and Asian American). The Asian Communities for Reproductive Justice (ACRJ, 2005, p. 2) declare that

'reproductive justice is the complete physical, mental, spiritual, political, economic, and social well-being of women and girls', which will be achieved *only when women and girls have the economic, social, and political power and resources to make healthy decisions about our bodies, sexuality, and reproduction for ourselves, our families, and our communities in all areas of our lives.* (emphasis in original)

Advocates for reproductive justice have eschewed a narrow individualist focus on fertility control and self-determination in favour of building networks of solidarity around housing, working conditions, domestic labour, environmental justice, and many other issues—all of which impact upon the capability to exercise meaningful choice. As such, the concept provides a useful vocabulary for highlighting the structural constraints of particular women's local and moral worlds and emphasises human rights and intersectionality as core principles for understanding women's reproductive experiences. While reproductive justice theory emerged from the lived experiences of African American women in the United States, it involves a theory, strategy, and practice that applies more broadly. Loretta J. Ross (2017, p. 361), one of the co-creators of the framework, has highlighted that '[e]very human being has an intersectional mosaic of experiences subjected to forms of bodily control by society'.

In addressing the complexities between intersectional identities and systems of social inequality in a more global context, the framework of reproductive justice could significantly contribute to scholarly debates about ART, and about egg freezing in particular. Such debates have tended to focus on the scope of reproductive autonomy that is aligned with the struggles of secular middle-income white women who have access to a lot of medical facilities. Although economically privileged people of all racial, ethnic, religious, and national origins are participating in this industry, those most likely to possess the financial resources to purchase ART services remain over-determined by racial, class, and opportunity structures.² Furthermore, no studies focus specifically on the particular experiences of women of colour, devout women, people with disabilities, and people with non-normative gender expressions and sexualities. An exception is the study of Kılıç & Göçmen (2018), which explored egg freezing in Turkey and considered the interaction between religious beliefs and medicalisation. They argued that women selectively negotiate moral norms by preferring fertility preservation, which could potentially cause damage to the hymen, over chastity. In the media, we can also read various examples of less obvious narratives about egg freezing that invite us to shift to a more intersectional conceptualisation. Reniqua Allen (2016), who identifies as African American, reflected in a *New York Times* op-ed entitled 'Is Egg Freezing Only For White Women?' on whether women of colour could freeze their eggs and pursue single motherhood without becoming 'a stereotype or a stigma'. Her story underlined how racial discrimination often transcends class boundaries in access to ART. Moreover, evidence from the United States indicated the over-representation of women of colour among people with infertility but the

underrepresentation of women of colour among those who received medical services (Greil, McQuillan, Shreffler, Johnson, & Slauson-Blevins, 2011). The situation is more complex in countries with more equitable healthcare systems such as the Netherlands and the United Kingdom, but several scholars have also demonstrated the ethnocentricity of fertility services in these places, illustrated by the institutional discrimination and less optimised care for minoritised and racialised groups with regard to ART (Culley, Hudson, & Van Rooij, 2009). Another media story (Thompson, 2019), that of Charlie Scarterfield in the United Kingdom, identified obstacles for transgender healthcare including inadequate funding for the procedure of egg freezing, describing the need for launching a crowdfunding campaign. Reproductive justice thus attends to diverse stories, and interrogates the different intersections of race, gender, religion, and class in access to egg freezing. Tracing the multiple entanglements of reproduction beyond individual choice opens the difficult black box of who benefits and who does not, and compels us to think more critically about societal and governmental responsibilities with regard to access to fertility care. However, reproductive justice is not only concerned with 'access' because there are other disparities in social structures and institutions. As Mamo (2018) states, feminist politics need to go beyond equitable access to ART and tease out issues such as the outcomes and quality of treatment for non-normative users who do not aspire to heterosexual coupledness. Health care practitioners (i.e. counsellors and clinicians) may reproduce social disparities and reinforce normativity by categorical dismissal and the use of double standards in non-normative situations like those of single-mother families, queer-parent families, families of colour, and economically disadvantaged families. Questioning the current kinship forms that are encouraged and promoted by this technology and dismantling the presumptive legitimacy of medical encounters are central to the struggle for reproductive justice.

Conclusion

This research has shed a contemporary light on the contentious issue of reproductive autonomy in the case of social egg freezing. To explore the meaning of this concept, we looked at existing studies on how women experience social egg freezing. Although women mostly see egg freezing as empowering, they also acknowledge its imperative impact. Moreover, most candidates aspire to ideal approaches to motherhood and heteronormative parenting. While traditional accounts of autonomy often highlight the

liberating potential of this technology, they fail to consider the impact of the social environment. Reproductive decision-making is better conceptualised as ambiguous and a grey zone, influenced by relationships (or the lack thereof) and the gendered social context. Furthermore, we found that the concept of reproductive justice is relatively absent in the scholarly engagement with social egg freezing. This activist framework allows us to broaden the scope of this debate and to attend to diverse experiences and intersecting structural conditions, and, as such, it encourages a more critical understanding of how techniques such as egg freezing are part of, and contribute to gendered, heteronormative, and racialised neoliberal societies. Therefore, it is necessary to bring debates in bioethics (i.e. on autonomy and justice) closer in line with the plurality of women's experiences. Further research should be undertaken to investigate the views of women of colour, less class-privileged women, and queer people. Many questions also remain about men's intentions and behaviours as reproductive partners. This will become urgent in societies in which assisted reproduction, including egg freezing, becomes increasingly prominent in some people's lives and have potential normative and non-normative outcomes for particular bodies and families.

Notes

- 1 A preliminary remark is needed on the concept of social freezing, because the distinction between medical and social reasons is difficult to make for women who undertake this preventive action. The term 'anticipation of gamete exhaustion (AGE) banking' is also suggested as a less judgemental alternative (Stoop, Van Der Veen, Deneyer, Nekkebroeck, & Tournaye, 2014b). Nonetheless, we still use the term social egg freezing because it is not only a recognisable catch phrase in the debate, but because the focus of this paper will be on the social aspects that influence the choice for egg freezing.
- 2 The burgeoning uptake of social egg freezing is not only a Western phenomenon but occurs around the globe. For example, egg banks can be found in countries such as Indian, South Africa, Egypt, and the United Arab Emirates. However, little is conclusively known about its accurate magnitude and scope in the thriving global bioeconomy of eggs.

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