



UvA-DARE (Digital Academic Repository)

Freezing fertility: Oocyte cryopreservation and the gender politics of ageing

van de Wiel, L.

Publication date

2015

Document Version

Final published version

[Link to publication](#)

Citation for published version (APA):

van de Wiel, L. (2015). *Freezing fertility: Oocyte cryopreservation and the gender politics of ageing*. [Thesis, fully internal, Universiteit van Amsterdam].

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

Mothers on the Edge of Time

Egg Freezing and the Reinvention of Older Motherhood

Women and eggs engaged in elective OC may journey through all the stages I have addressed in the previous chapters: anticipation, hyperstimulation, extraction, cryopreservation, fertilisation and embryo selection. However, the medically-assisted act of choosing motherhood—whether or not a live birth will follow—only presents itself in the next step of the procedure, in which the *in vitro* cultured embryo enters the intended mother’s womb and a pregnancy may ensue. The question of ageing emerges perhaps most pertinently at this stage—in a variety of ways. First, the different types of ageing discussed in the previous chapters—from age-specific female reproductive embodiment to the cryopreserved cell’s latent state and the ageing of incubated embryos—come together, potentially resulting in the familiar temporal hybrid of embryonic and adult ageing in pregnancy. Second, age is a key factor in determining who has access to the implantation procedure, given that countries and clinics use different age caps for the treatment of intended parents. Third, when elective egg freezing is practised as a precaution against age-related infertility, it functions specifically as an aid for reproduction later in life. In this chapter I address several new ways of attaining motherhood after the end of the reproductive life span that co-emerge with oocyte cryopreservation, which become meaningful through existing cultural understandings of “older motherhood” and their intersections with systems of age normativity.

Egg freezing emerges in the wake of the cultural negotiations of ageing and motherhood that followed IVF’s introduction. For those women with the wealth and health to access this reproductive technology, IVF created possibilities of having children later in life in spite of age-related subfertility. Albeit with limited success rates, IVF improved chances of late conception by increasing the number of available eggs through superovulation and by selecting only the most promising embryos for implantation. IVF also created the possibility of implanting embryos made with younger women’s eggs in the wombs of older women, who could then carry a fetus to term even if their own eggs were no longer viable. The cryopreservation of embryos allowed women to get pregnant with genetically related children at a later age. In each of these ways, IVF reconfigured the meaning and materiality of motherhood later in life, leading to public discussions and institutional regulations about who should have access to IVF, often focussing on the question of “how old is too old?” (Shaw and Giles 2009).

With respect to this question, the Netherlands adopted nationwide age restrictions in the *Model Embryo Act*, which specifies that women may undergo IVF

with donor eggs—now including one’s own cryopreserved eggs—until the age of 45 (Kwaliteitsinstituut voor de Gezondheidszorg CBO 2003, 29). This age cap was established with reference to the earlier *IVF Planning Decree*, which motivated the age-related restrictions with concerns about the health risks of older motherhood, the welfare of the child and limited available research on later pregnancy with donor eggs (Health Council of the Netherlands 1997, 108–114). Since then, certain Dutch gynaecologists have concluded that international medical experience with egg donation and advanced maternal age has suggested that there are indeed higher complication rates, but that the maximum age cap could nevertheless reasonably be “raised to 50 years” (Kortman et al. 2006, 2594). So when the Amsterdam Medical Centre (AMC) proposed to start elective egg freezing in 2009, this became the occasion to suggest a raising of the maximum age for using cryopreserved and donor eggs to 50 (Van Erp 2009). The Minister of Health approved elective OC two years later, but maintained the age limit for embryo implantation at 45 (Schippers 2011a). While the use of OC was thus eventually rendered acceptable, the maximum age cap remained unchanged.¹¹⁶

In the UK, the Human Fertilisation and Embryology Authority (HFEA) does not set a fixed maximum age for fertility treatment, but leaves the decision to the treating consultant and fertility clinic. Rather than regulating access by chronological age, clinics may do extensive testing at later ages to determine women’s suitability for treatment. Some clinics, like the Bridge Clinic in London, market their services specifically to women over 40. While British clinics routinely offer treatments beyond the Dutch 45-year limit, the National Health Service (NHS) only covers IVF costs for women up to the age of 42 (NHS Choices 2013).

The question of age-specific access to reproductive health care, as well as the popularity of egg freezing, should be positioned in relation to wider demographic trends of people having children later in life. Both in the UK and in the Netherlands, the average maternal age at childbirth has risen steadily since the 1970s. Whereas women in the UK were on average 26,4 years old when they gave birth in 1974, by 2012 the average age was 30 (ONS 2013b; Shelton and Johnson 2006, 317). In the Netherlands the

¹¹⁶ In 2012, Dutch Minister of Health, Welfare and Sport Edith Schippers followed the recommendation of the Health Care Insurance Board [*College voor Zorgverzekeringen*] (CVZ) to cut health care costs by restricting the insurance coverage for IVF to women up to 42 years of age. Schippers recognises that the relatively limited IVF success rates motivating this change do not apply in the same way to women using their own cryopreserved eggs and argues that the policy change will prevent future costs associated with the group of women returning to use their frozen eggs (2012). At the occasion of this policy change, 42 was pinpointed as the age at which infertility transforms from, in the words of the spokesperson for CVZ, an “impairment” to a “natural loss of fertility” (Zorg & Financiering 2012). This change is indicative of how the meaning ascribed to the relation between maternal age and fertility is contingent on political and financial factors.

average maternal age rose from 27 to 31 in the same time period (CBS 2014).¹¹⁷ Paternal ages have also gone up; men are on average three years older than women when they have a child (Sanderse et al. 2013). Along with this development, there is an increase in unwanted childlessness (Beets et al. 2013, 8). In keeping with the later age of reproduction in the general population, women seek fertility treatments at increasingly older ages. While British women were on average 33 years old when they underwent fertility treatment in 1992, in 2007 this had risen to 36. In this period, fertility treatments also became more popular: their number more than doubled from 14,000 to 36,600 (HFEA 2008).

As IVF expanded the possibilities of becoming a mother at later ages amid these demographic trends, “older motherhood” became a politicised social construct. This is only a relatively recent development in Western culture; throughout the 20th century, so-called “older motherhood” was a common phenomenon. Although Dutch and British women had their first child earlier than today just after WWII, the average age at childbirth in 1950 approximates those observed in 2012 (ONS 2013a; CBS 2014).¹¹⁸ In spite of the absence of IVF, as women had more children and less access to birth control, actual and relative numbers of children born to women over 45 were higher in 1940 than in 2012 (respectively 3,4 and 2,7 per 1000) in the UK (ONS 2013a). In the 1920s, 42 was the average age for a British woman to have her last child. Over the course of the 20th century, ages that had once been unremarkable became considered “too old,” and the women who pursued motherhood at this age, a social problem (Berry qtd. in Friese et al. 2008, 66; Hanson 2003). Although objections to late reproduction may typically be presented as health or welfare concerns (Shaw and Giles 2009, 222), the historical specificity of the unease with older motherhood suggests it may equally be motivated by norms of timing reproduction and attitudes to technologically mediated reproductive decision-making.

In this chapter, I focus on how the introduction of egg freezing is indebted to and shifts existing cultural constructions of “older motherhood.” I examine these constructions through an analysis of the 1998 British documentary *Granny’s Having a Baby*, in which Liz Buttle represents a limit case of “older motherhood” after IVF (Dispatches 1998).¹¹⁹ In 1997, Welsh 60-year-old farmer Buttle gave birth to baby Joe, who was conceived through donor-egg IVF. The birth caused a stir in national and international news media, provoking heated debate on “older motherhood” as not only

¹¹⁷ Average ages at the birth of the first child were 28,1 in the UK and 29,4 in the Netherlands (ONS 2013a; CBS 2014).

¹¹⁸ In the Netherlands, the average age at childbirth was 30,6 in 1950 (1st 26,4), compared to 31 in 2012 (1st 29,4). In the UK, these ages are 28,2 in 1950 (1st 25,1) and 29,8 in 2012 (1st 28,1) (ONS 2013a; CBS 2014).

¹¹⁹ A 1998 documentary, it presents older motherhood at a time when eggs were not yet routinely frozen.

an age qualifier of a kinship role, but an ethical category. The documentary offers insight into how the cultural construction of “older motherhood” is informed by the intersection between reproductive age norms and other cultural systems of ageing that organise labour, sexuality and gender. The documentary offers insight into the complexity of the construction of older motherhood, which will provide the basis for a further examination of the types of late reproduction that OC makes possible.

I distinguish and discuss three new forms of technologically-mediated older motherhood that co-emerge with OC. Firstly, as a counterpart to the anticipatory logic of egg freezing, older motherhood resulting from frozen eggs gains a more pre-meditated, or “willful,” character as a result of a reproductive intervention much earlier in women’s lives (Ahmed 2011). To gain insight into the willfulness of timing reproduction against the grain, I discuss how technologically mediated older motherhood is construed as transgressive in *Granny’s Having a Baby*. Secondly, because stored frozen eggs provide an alternative to donor eggs for women who wish to conceive after the onset of age-related infertility, genetically related older motherhood may occur at higher ages. I address this second form of older motherhood, and its concomitant reconfiguration of the relation between age and kinship, through analyses of the documentary about Buttle and a London fertility clinic’s information evening on “fertility over forty.” Whereas these first two forms of older motherhood reference a type of reproduction that may take place after the onset of age-related infertility, the third may occur at a later stage, after the intended mother’s death. With OC, for the first time in history, posthumous conception and motherhood becomes a technical possibility. I examine this third new form of motherhood with a close reading of the informed consent forms that patients sign prior to the cryopreservation of their eggs, which confront people with the question of their death and cellular legacy. This chapter addresses these three new configurations of motherhood as inseparable from “the meaning systems they both reproduce and depend upon” by focusing on how OC reaffirms and transforms the intersections of reproductive ageing and willfulness, kinship and mortality (Franklin 2007, 3).

Willful Conceptions: Constructing Older Motherhood

As a reproductive technology aimed at having children at a later age, egg freezing provides the occasion for a revisiting of the controversies of “older motherhood” that emerged with IVF. As IVF—particularly donor-egg IVF—pushed physical and cultural age-related boundaries of motherhood, so the frozen eggs of OC have the potential to stretch maternal age limits of conception. The 1998 documentary *Granny is Having a Baby* gives insight into a recent history of the politicised construction of older motherhood. The main concerns raised with regard to older motherhood in popular and medical discussions are health risks and children’s welfare issues (Shelton and Johnson

2006; Shaw and Giles 2009). A critical reading of *Granny's Having a Baby* (1998), however, suggests that another key dimension of the widespread disapproval of late reproduction pertains to culturally constituted systems of ageing through which older motherhood becomes legible. In dialogue with Sara Ahmed's *Willful Subjects*, I discuss how the (non-)reproductive decision-making underlying older motherhood, and particularly the older motherhood achieved through egg freezing, comes to be associated with a specific type of (non-) reproductive "willfulness."

A Channel 4 documentary aimed at a general audience, *Granny's Having a Baby* magnifies some of the popular attitudes towards older motherhood. It consults doctors, researchers, lay people and older mothers to comment on the ethical and medical dimensions of late reproduction. Although the documentary adopts a journalistic model of highlighting both positive and negative aspects of having children later in life, its visual and linguistic rhetoric constructs older motherhood as a problematic social phenomenon. Throughout, in keeping with a wider phenomenon of public scrutiny of women's reproductivity as "biological spectacle," it positions older mothers as subjects of public concern that invite moral judgment from the viewer (Balsamo 1999, 80). This is particularly the case in the documentary's presentation of Liz Buttle, who conceived through donor-egg IVF at the London Fertility Centre after starting a relationship with Peter Rawstron.

The documentary opens with a photographic portrait of Buttle's face as the voice-over announces: "This is Britain's first pensioner mother." The voice-over continues as accompanying portraits appear on the screen: "This is the professor whose clinic she duped to get fertility treatment" and "this is the miracle baby whose birth sparked a huge row about older motherhood." Much like crime television shows "present us with fables about the nature of our society and the punishments we can expect if we deviate from its rules," so *Granny's Having a Baby* presents the punishments for deviating from reproductive age norms by documenting the "huge row" surrounding Buttle (Grant 1992, 57). The documentary's visual and textual portrayal of Buttle affirms this disapproval, and thereby gives insight into the intersection of different cultural systems of ageing that inform the category of "older motherhood."

After the opening sequence, the documentary introduces Buttle with a scene in which she wakes up in bed and breastfeeds baby Joe. This follows an establishing shot of the Welsh countryside, overlaid with the sound of baby Joe's crying. "Oh dear," Liz responds to him, "you want to come up and have your breakfast." She moves up from under the covers, lifts her shirt and the baby latches onto her breast. As the camera zooms in on the baby and Buttle's breast, the voice-over says: "Liz Buttle is Britain's oldest mother. Joe was born when she was 60." With reference to seemingly-incongruent kinship and labour categories, the documentary emphasises Buttle's age by presenting

her as “granny” in its title, “pensioner” in the opening sequence and, here, 60 years old at Joe’s birth. By introducing Buttle as she is feeding, the documentary visually establishes her as the baby’s mother, to be distinguished from the many women her age that care for infants.

In bringing together ageing and maternity, the image of Buttle’s breast becomes a symbol of older motherhood and the social provocation associated with it. Given the breast’s dual cultural signification as a marker of both sexuality and maternal nourishment, breastfeeding is bound by strong privacy conventions—which is most obvious in the relative absence of public breastfeeding in contemporary Western societies (Dykes and Griffiths 1998). Britain’s comparatively low breastfeeding rates—only 25% of new mothers breastfeed for six months—have been linked to a politics of public space that constrains public breastfeeding (Boyer 2012, 553–554). According to Sarah Earle’s study into public breastfeeding, the prevailing attitude among British new mothers is one of ambivalence, as participants suggest public breastfeeding could be regarded as “disgusting” or “embarrassing” (2003, 11–14). Pressure on women to be “discreet” in public spaces suggests that the maternal nourishing breast cannot be decoupled from its “cultural coding [...] as primarily sexual,” and must therefore remain covered (Smyth 2008, 96; Bartlett 2005, 84–109). Within this cultural context, in which the breast’s revelation is subject to cultural policing, introducing Buttle with a scene of breastfeeding has the rhetorical effect of positioning “older motherhood” as potentially transgressive.

This rhetorical effect is intensified because the scene not only transforms private into public breastfeeding, but exposes the body of a mother of advanced age. This should be read within television and film conventions that produce what Katharine Whitehorn describes as a “lopsided mirror to life,” in which “only older men are allowed to grow old on screen” (qtd. in Segal 2013, 76).¹²⁰ This limited visibility particularly extends to older women’s bodies. Addressing the permissiveness of body revelation in older women, Julia Twigg studies the relation between ageing and clothing as “the interface between the body and the social world” that functions as “encoded moral language.” Reminiscent of Tilt’s morally-inflected prescriptions of body covering and sexual prudence for menopausal women, Twigg describes the tendency for older women’s clothes to be longer, more shapeless and more muted in colour—all of which suggest “social retirement” and a retreat from “overly sexual display” (2007, 293–294, 301). These clothing norms indicate that the cultural policing of nudity intensify with age. In this

¹²⁰ Large-scale studies of Hollywood cinema affirm this ageist and sexist double standard, by demonstrating that male success is conventionally depicted as uninterrupted by old age, while older women are portrayed negatively or disappear from the screen altogether (Markson and Taylor 2000, 156; Bazzini et al. 1997).

context, the documentary's breastfeeding scene contravenes visual conventions of normative ageing and thereby presents Buttle's older motherhood as transgressive.

Buttle's initial characterisation as "pensioner mother" also references the age norms of labour relations.¹²¹ The notion of "pensioner mother" is a conjunction of two life courses that would normally follow one another, but now occur at the same time. Although eligible for the state pension, Buttle emphasises her active working life as a farmer throughout the documentary. Whilst breastfeeding Joe, she tells him "mommy's got to get to work" and, later, she explains: "I do all the things I used to do. I still do the same work, chopping wood, putting the horse on a rope. Compared to farming, looking after a baby is not any work at all." Buttle rejects the pensioner identity by presenting herself as a capable farmer whose physically demanding work is a testimony to her continued fitness and ability to raise a child. Rather than a threat to motherhood, as popular media presents women who "want to have it all" (Faludi 1991, 99), Buttle references her work as a qualification for motherhood. In Buttle's affirmation of her working identity, (physical) labour acquires an almost symbolic function as an expression of "successful ageing" and continued functionality—challenging a notion of pensioner identity as a disqualification for productive and reproductive labour alike (Katz and Marshall 2004; Vincent 2006).

Implicitly responding to criticisms that a pensioner is too old to become a mother, Buttle's claim to continued (re)productivity expresses a "type of late modernity notion of citizenship for ageing individuals based on principles of agelessness, health, [and] independence" (Cardona 2008, 475). This "successful ageing" approach contrasts with the models Buttle's critics employ, which "reduce ageing people to their bodies and the risks of bodily decline, illness and disability" (Cardona 2008, 482). The documentary features these critics through a compilation of street interviews in the nearby town of Lampeter. "I think it's disgusting really," says one of two young women, giggling nervously, "She'll be dead when he's 15." Her friend nods in agreement. An adult man remarks, emphatically disapprovingly, "It's a health risk at any age. At 60, it's not going to do her any good. I'd be surprised if she lives to be eighty." With a cut to Buttle coughing as she drives her car, the documentary invites the viewer to share their concern about her mortality. Appealing to a model of ageing founded on "the 'natural' association of old age with illness and decline," the respondents voice a clear expectation that Buttle has entered a life course associated with inevitable health deterioration and death (Vincent et al. 2008, 293).

¹²¹ The use of "pensioner" as an identity marker indicates how labour relations inform the cultural meaning of certain chronological ages, like 60 (Woodward 2006, 163).

These strong condemnations cannot simply be explained as concern for the welfare of the child or even the mother's health, but point to the specificity of older motherhood as an ethical category. The disapproval does not only follow from the risk of Joe becoming an orphan or a carer early in his life, as such unease is unlikely to be voiced in similarly strong terms about a child born to parents of average childbearing age who suffer from life-threatening diseases. It is also not a concern with older parents in general, as Peter Rawstron, Buttle's then partner and only three years her junior, did not receive similar criticism about his age or his continued commitment to Joe's upbringing.¹²² Children are commonly raised by grandparents or older carers without provoking disgust (Gray 2005). Rather, it is the particular transgression of older motherhood—combining the particularities of health risks, gender and age—that Buttle epitomises through the perceived willfulness of her decision to disregard medical, physical and cultural standards and have a child.

Willfulness is a character attribution that Sara Ahmed positions in the relationship between the “individual will” and the “general will”: “The willful character is the one who poses a problem for a community of characters, such that willfulness becomes that which must be resolved and even eliminated” (2011, 233). More specifically, Ahmed describes a historically-pervasive “reproductive will” that follows from an understanding of the womb as embodying an impetus to reproduction: “If women exist as wombs, as child makers, then they inherit the reproductive will, as that which if thwarted or blocked, causes illness and damage. Nonreproductivity can thus be treated as a willful object” (2014, 118–9). She discusses pronatalist examples of a general will enforcing a reproductive duty on women, while to “break away from duty is narrated as willfulness” (2014, 116).

Buttle's case draws attention to the age-specificity of the reproductive will. Ahmed suggests that because adulthood “is imagined as leaving playfulness behind” and becoming (re-)productive, “nonreproductive adult bodies can appear as willful children, or perhaps willfully childlike, as selfish, [...] as refusing the demand to grow up” (2014, 120). In Buttle's case, there is a reversal of this logic in which precisely her reproductivity is criticised as a “selfish” refusal to transition into a life course no longer associated with childbearing. Buttle's perceived willfulness follows from her reproductive act against a general *non*reproductive will that is both explicitly and implicitly expressed in the documentary as a disapproval of her older motherhood. A young woman, for example, says “if it's naturally done, it's naturally done,” but thinks Buttle's use of reproductive technologies “a bit of a farce.” Whereas Ahmed speaks of a historical tradition in which the womb is conceptualised as having “a will of its own: [...]

¹²² In fact, Rawstron left Buttle and baby Joe weeks after the documentary was shot.

the will-to-reproduce,” the response to Buttle appears to suggest the temporal conditionality of this will and its reversal into a will-not-to-reproduce after a certain age (2014, 118).

The use of reproductive technologies signifies the willfulness of Buttle’s decision to reproduce in spite of age-related infertility. Arguably anticipating objections against her use of donor-egg IVF, Buttle initially claimed that Joe had been conceived accidentally in “the back of [Rawstron’s] blue Maestro van,” after she had supposedly “given up thoughts of babies” because of her age (Qualtrough 1998). The news that her conception was not “naturally done” emerged soon after Joe’s birth and contributed to the controversy. In Buttle’s case, it is not only the occurrence of older motherhood outside “normal reproductive years,” but an intended mother’s agentic choice to pursue it by using reproductive technologies that is seen as a willful transgression of the chrononormative limits to reproductivity (Bos et al. 2012b, A4145).

The reproductive technology of egg freezing presents further challenges—its own kind of willfulness—to a general will concerned with the changing state of parenthood. Following the public ambivalence towards the reproductive decision-making underlying older motherhood that is so forcefully expressed in Buttle’s case, OC presents the conditions of emergence for a new form of willful older motherhood characterised by premeditation. As noted above, the willfulness of not conceiving “at optimum age” is reinforced by the use of reproductive technologies, which suggest an agentic choice for non-normative motherhood rather than an accidental late conception (Shaw and Giles 2009, 226). OC takes this one step further by positioning the agentic choice in the fertile life phase. In Chapter 1, I developed the notion that egg freezing simultaneously represents an active choice not to have children at present and a commitment to future reproduction later in life. In Chapter 3, I addressed the anticipatory logic that shapes the choice for egg extraction and cryopreservation during the fertile life course in the first phase of the procedure. Its counterpart in the second phase that I address here is a form of pre-meditated older motherhood that follows from the earlier anticipatory act. Presuming, for simplicity’s sake, a progression from a fertile to an infertile life course, conventional IVF decision-making is situated entirely in the latter, while egg freezing procedures span both. Rather than a last-resort treatment after infertility has been diagnosed, the older motherhood of OC is the result of a willful reproductive decision situated much earlier in women’s lives. Both non-reproductivity in the fertile life phase and reproductivity in the time following “normal childbearing years” are widely criticised (Shelton and Johnson 2006, 226; Smajdor 2009; Shaw and Giles 2009, 226); OC’s specific willfulness follows from their combination in its potential violation of both the “reproductive will” earlier in life and the will not-to-reproduce after the onset of age-related infertility (Ahmed 2014, 118).

Genetically Related Older Motherhood

As OC introduces a pre-mediated form of older motherhood, the earlier anticipatory act of egg freezing also reconfigures the relation between ageing and kinship. The removal and cryopreservation of eggs creates a split between the age of a woman's body and her frozen eggs. As I have argued in earlier chapters, egg freezing positions the egg's age as the key factor in achieving older motherhood. However, OC is not the first ART to do so; it emerges at a time when this temporal split is already routinely employed in the use of younger women's donated eggs to enable older motherhood.¹²³ OC may be considered an autologous version of these heterologous egg donation practices. The anticipatory choice to freeze one's own eggs, rather than opting for donor eggs if it turns out to be necessary, points to the significance of the specific kinship relations symbolised and embodied by the "own" and the donor egg. In this section, I address the intersection between kinship and ageing in autologous (OC) and heterologous egg donation.

In January 2014, I attended an open evening titled "Fertility over 40" at the Bridge Centre, a London fertility clinic. Michael C. Summers, a consultant in reproductive medicine, gave a PowerPoint presentation that included the familiar selection of downward graphs detailing female age-related fertility decline and dwindling IVF success rates. These graphs were contrasted with those presenting the results of donor-egg IVF, which showed much more favourable live birth rates that remained stable as the x-axis of women's age progressed from late thirties to late forties. A collage of photos of Hollywood actresses who had been pregnant in their forties followed these slides. Dr Summers told the audience that these celebrities had likely all conceived through egg donation, even though they may not have affirmed publicly that this was the case. These two elements of Summers' presentation are in no way exceptional or unusual. Celebrity pregnancies in women over 40 are a popular topic in entertainment media and—as became clear in the media analysis of OC in Chapter 1—fertility statistics are an integral part of popular discourses on reproductive technologies (Gow et al. 2012). While the celebrity images have been criticised for "weaving into our cultural fabric that age is no longer a barrier to having a baby," fertility statistics have been employed to popularise the opposite message (Wood 2008, 326). In Summers' presentation, the donor egg provides a resolution for these opposing messages: although fertility declines with age, with donor-egg IVF women can continue to have babies. The actresses'

¹²³ Egg donors may be older than egg recipients in cases of premature menopause or disease-related causes of infertility. Also, when donor eggs are frozen for an extended period, the donor's age may be higher than the eggs' age at the time of freezing. This is particularly relevant in cases of mothers freezing their eggs for their infertile children, in the expectation that they may want to use these genetically similar gametes if they ever want to reproduce (Fleming 2007).

portraits thus do not support the promise of unproblematic continued fertility, but rather an age-specific need for fertility treatment.

This need for treatment follows from the identification of the eggs', rather than the woman's, age as the limiting factor in fertility in the forties. With reproductive ageing primarily positioned in the eggs, the clinic's recommended maximum age for IVF treatment with women's own fresh eggs is lower than that for IVF with donor—or own cryopreserved—eggs. Donor egg cycles thus shift the logic of reproductive ageing by including in the progression from age-related fertility to infertility an additional age bracket within which gestational motherhood may be attainable, but genetic relatedness is not.

Coupling this with Summers' presentation of egg donation as a widely practiced ART, particularly among the affluent, he hints at a situation in which the likelihood of genetic relatedness becomes contingent on maternal age and, conversely, age becomes a factor in questioning maternal genetic kinship. In other words, the crucial point of Summers' presentation is that the expected use of donor eggs, and the concomitant question of relatedness, emerges as a function of the actresses' chronological age.

However, in spite of the presentation's suggestion that women who give birth at later ages may be scrutinised for their genetic relatedness to their children, the images of celebrity motherhood present donor-egg IVF over forty not as a transgression of age or kinship norms, but as a sign of successful ageing. The celebrities' continued reproductivity fulfils what Smirnova calls the "will to youth," or "the imperative of the aging woman to promote her youthful appearance by any and all available means" (2012, 1236). In keeping with Susan Bordo's argument that celebrities "have established a new norm achievable only through continual cosmetic surgery in which the surface of the female body ceases to age as the body grows chronologically older," the birthing of their "miracle babies" may be a variety of this type of medically-mediated female successful ageing project, in which the "will to youth" is transposed to ovarian interiority in alignment with the body's surface appearance (qtd. in Smirnova 2012, 1237). The presentation's inclusion of celebrities images' may be indicative of donor-egg IVF as a "new norm," suggesting that a potentially absent maternal genetic link does not threaten the cultural recognition of motherhood through social and gestational relations.¹²⁴

Whereas Summers bases his assessments of potential donor-egg use, and concomitant genetic relatedness, on the celebrities' ages, egg freezing presents a

¹²⁴ The incorporation of positive images of donor-egg IVF in this PowerPoint thus implicitly responds to the "stigma[s] associated with infertility" and "with assisted reproduction procedures involving donated gametes," by presenting celebrity women as unable to conceive with their own eggs, yet successfully fulfilling normative gender, age and motherhood roles (Murray and Golombok 2003, 93; Golombok et al. 2004, 444, 451).

different logic in the relation between kinship and ageing. At least in theory, egg freezing removes the kinship compromise associated with egg donation. It offers the promise of an alternative form of older motherhood that extends beyond age-related limitations of egg viability, but nevertheless maintains a maternal genetic bond. For this reason, egg freezing may be read as a kinship technology specifically aimed at having one's "own" child in spite of increasing maternal age.

The construction of maternal relatedness in ART practices that separate women and eggs has been studied extensively in the "new kinship studies" (Van den Akker 2000; Thompson 2001; Almeling 2011). This work investigates the "redefinition of the biological [as] a distinctive site of cultural change," while remaining critical of overestimating "not only the novelty but the determinism of new forms of technological innovation" (Franklin and Mackinnon 2001, 11). Scholarship in the "new kinship studies" has considered the separation of genetic and gestational motherhood, but one relatively underexplored dimension of this division is that reproductive ageing, too, becomes split between gestational ability and gamete viability—a separation that links the construction of kinship bonds to age identities. Charis Thompson describes the work of "doing" kinship as opposed to "simply 'being' a particular and fixed kind of kin" (2001, 176). She argues that fertility clinics are sites in which "certain bases of kin differentiation are foregrounded and recrafted while others are minimised" in order to make the paying intended parents recognisable as the "real parents." The discursive alignment of the intended kinship tie and the gestational, genetic, lactational or absent biological relation to the child is what Thompson calls "kinship work" (2001, 177).

Kinship work after conceiving with donor-egg IVF is a central element of *Granny's Having a Baby*. Buttle's claims to motherhood, relatedness and functionality, as well as the documentary's framing thereof, give insight into broader cultural constructions of kinship and ageing as interrelated categories. Throughout the documentary, the operations of kinship work are also performed by other contesting voices, producing an ambiguous form of motherhood, the age-specific transgression of which is entangled with kinship uncertainty. By having Joe, Buttle did not only trouble the "normal" age limits to childbearing, but her age-related use of egg donation also problematised the clear kinship relations associated with gestational motherhood. Although the establishment of paternal kinship lines has known a degree of uncertainty—and concomitant institutionalisation—throughout history, it is only since the introduction of egg and embryo donation that maternal genetic relatedness is no longer assured by the process of pregnancy. In the face of this uncertainty, *Granny's Having a Baby* employs various visual strategies to establish Buttle's motherhood, many of which appeal to the gestational link, yet it also draws out the question of maternal relatedness by introducing contesting claims of Joe's genetic origin.

On the one hand, the documentary recognises Buttle as Joe's mother by recording and practising the "kinship work" that affirms her motherhood. According to Thompson's research, a characteristic strategy for affirming the maternal relation to a child born from a donor egg focuses on the "renaturalization of gestation" as the locus of the "alignment of procreative intent and biological kinship" (2001, 175, 181, 191). In other words, if the genetic connection is missing, the gestational connection becomes privileged in the affirmation of motherhood. The traditional association of pregnancy with motherhood—not to mention the legal precedence of gestational over genetic relatedness in the HFEA—provides the basis for the visual kinship work of establishing Buttle's motherhood identity by presenting observable signs of pregnancy (HFEA 1990, 15–19). Buttle's body, bearing the signs of birthing and weaning a child, functions as a testimony to both her motherhood and mothering ability. For example, Buttle says, "well I've got my figure back. As you can see, you know. Size ten." She turns to the side and pulls her t-shirt against her body to show off her figure. She holds up her breasts as she continues: "My bust is hanging a bit as I haven't got a bra on and I'm feeding. No, I think that's not too bad considering my age and a baby and caesarean. I've recovered very well. I've had no problems." Addressing the widespread concern about her age, Buttle references her body to make the claim that she is physically fit enough to have a child at 60. In response to the interviewer's question of whether she has got a scar, she unbuttons her trousers and lifts her shirt to show it to the camera. "There's the scar," she says. A line extends from her belly button down. She comments that "it has healed well," framing the image of her scar as a sign of health and functionality, as she did by foregrounding her body's normative size. Although the documentary challenges this positive self-presentation by the subsequent cut to an interview with a mother who argues against Buttle's wisdom in having a child, the physicality of breastfeeding and the exposure of the Caesarean section's scar function as post-partum signs to establish Buttle's identity as mother to the child.

On the other hand, the documentary calls Buttle's kinship work into question through its presentation of the nature of her fertility treatment, which is at odds with her claim that the baby originates from her own and Rawstron's gametes. The voice-over states that "Liz insists she took a sample of his sperm to the clinic. Peter never visited the clinic." The documentary then cuts to Rawstron, who is positioned outside in the farmland, removed from the domestic environment of the home. "As far as knowing whether I'm the father or not," he says, "it's not a hundred percent sure." The voice-over continues: "Despite her age, Liz also maintains her own egg was used. Although *Dispatches* [the documentary series] can confirm it was from a donor." The documentary does not cite a source for its claim, but nevertheless highlights Buttle's age as an implicit

explanation for its statement, thereby ambiguating the genetic kinship relations in the family.

Following these statements, the documentary features Buttle, who repeats emphatically, “Joe is our baby. Joe is our baby. And I mean he is the spitting image of Peter, in his ways, colouring, everything. The only thing he’s got of me is that he always has ice cold feet.” Significantly, the documentary does not include imagery of Joe as she describes his physical correspondences; the viewer is not invited to consider the likeness that may or may not be observable. Rather, the camera remains focused on Buttle as she speaks and sits by herself, suggesting it is her who should be scrutinised as an unreliable narrator. Along with the voice-over’s assertion about the donor egg and the uncertainty surrounding the source of the sperm from which Joe originates, Buttle’s statements are framed to sound dubious.

However, rather than a truth claim, Buttle’s repetition of “Joe is our baby” may also be read as a performative speech act that discursively produces kinship relations. Rather than unreliability, it references a common phenomenon in which kinship bonds are discursively constructed whether in spite of or with reference to the bodies that produced the gametes and carried the child to term (Thompson 2001). As Buttle reads a sociality of the family into the baby’s body, her “kinship work” is performative in the sense that it “enacts or produces what it names” (Butler 1993, 13). The repetition of “Joe is our baby” on-screen and presumably off-screen discursively constructs a notion of relatedness that does not primarily rely on the disclosure of the gametes’ origins and fertility treatment, but prioritises parental intentionality in the affirmation of kinship relations.

Underlining that Joe is “our child,” Buttle names physical resemblances to affirm kinship between Joe, herself and Rawstron. Her statements exemplify what Becker et al. call “resemblance talk,” which reinforces implicit genetic links and “‘places the child’ in a particular position in his or her social world” by naming physical correspondences between family members (2005, 1300–1301). Becker argues that resemblance is understood as the bodily expression of kinship ties (2000). In Buttle’s case, the absent genetic relation, following from her use of donor eggs, must be mimicked in alignment with the parental identity in recognition of “centrality of genetic connectedness in the cultural ideology of kinship and the meaning of family” (Becker et al. 2005, 1306). Rather than describing imagined physical correspondences, Buttle’s assertions about Joe’s cold feet and his resemblance to Rawstron are thus forms of “kinship work” that enact the parental kinship relations between them by citing norms of resemblance as affirmation of relatedness.

As Buttle’s and Summers’ cases demonstrate, it is precisely through the recognisable incongruities between a woman’s age and her reproductivity that otherwise

invisible interventions like IVF and egg donation gain a visual dimension. Although normally indiscernible, the use of reproductive technologies becomes visible in pregnancies that would otherwise be impossible, such as those by women who are recognised to be past childbearing age. By rendering the use of reproductive technologies visible, older motherhood thus becomes a *marker of interventionist motherhood*.

Egg freezing, however, presents a different logic in the relation between kinship and ageing. Elective egg freezing is in effect a form of egg donation, which has as its recipient not another body, but a future self. The separation of the reproductive labour of the woman producing the eggs and the woman carrying the fetus is here not mapped onto different subjects, but distributed across biological time. This modifies the temporal logic of genealogy into an “altered grid of relationality” (Franklin and Mackinnon 2001, 319). In the reunion of fertilised egg and aged body, OC may stretch the lines of genetic descent beyond the temporal distance that normally divides one generation from the next—a “genealogical stretch” as it were. As a result of cryopreservation, it may no longer be possible to infer maternal genetic relatedness—as a function of egg donor use—from a woman’s age alone.¹²⁵

As a method for establishing a type of older motherhood that maintains genetic relatedness to the child, egg freezing practices may be read as an embodied form of kinship work. The cryopreservation of eggs is a testimony to the desirability of maintaining the possibility of having an “own” child with a chosen partner. Whereas Buttle sought to establish kinship ties within the family by appealing to embodied discursive signs of gestational (caesarean scar, lactating breasts) and genetic (cold feet, colouring) relatedness, in OC the eggs function as the embodiment of kinship relatedness. This is in keeping with the understanding that the social value of reproductive cells follows from “attachments of shared bodily substance, genetic identity or biological ties, to particular people and their ‘biological relations’” (Franklin 2006a, 85). In the context of egg freezing, the kinship work in establishing the possibility of genetic relating across time is not only of a linguistic nature, but includes the reproductive and clinical labour involved in the OC procedure. Rather than the woman’s own or the (future) child’s body, as is the case in Buttle’s example, in OC it is the cell that becomes the locus of kinship work. Positioned prior to the conception of the child, the cryopreservation of this cell—with the aim of establishing future relatedness—may moreover be considered a form of “intended kinship” work.

¹²⁵ I use phrase “maternal genetic relatedness” to refer to a woman’s genetic contribution to the embryo through the provision of an egg. Beyond this individualised model, other approaches may “code” genes and gametes for “group inclusion and exclusion,” and thereby conceptualise genetic relatedness as extending within familial, racial, or “ethno-national” communities (Thompson 2001, 192)

Posthumous Motherhood

Alongside maintaining the possibility for genetically related motherhood later in life, egg freezing is also the condition of possibility for a type of motherhood that is altogether decoupled from the vitality of the living body. Through the temporal plasticity of the egg, OC creates the possibility of circumventing not only reproductive ageing, but the transition of death itself. Once frozen, the eggs remain in suspended animation, and—assuming they survive the thawing procedure—attain a temporary immortality. Given the continued viability of the eggs irrespective of the ageing and eventual death of the body from which they originated, the eggs may outlive the woman that froze them. Their continued existence opens up the theoretical possibility of a third new form of maternity emerging with OC: posthumous motherhood.

This type of posthumous motherhood, achieved through the fertilisation and surrogate gestation of frozen eggs, is not currently practiced; even to living women, no more than two dozen children had been born from frozen eggs in the Netherlands and the UK up until 2012 (De Melker et al. 2009; HFEA 2013b). However, Dutch and British informed consent procedures nevertheless stage a structural encounter with the continued reproductive potential of the eggs in the face of the mortality of the freezing subject, as every woman who freezes her eggs must decide on the destination of her eggs in the future, including the future beyond her own death.¹²⁶ Through these informed consent forms, the willfulness of egg freezing thus confronts the patient with what is in effect a will. In this section I am not primarily concerned with what happens to the frozen eggs after death, but rather focus on the question of how the informed consent forms facilitate an encounter with the futurity of death through their discursive mediation of the cryopreserved cell, which exists according to a different temporal logic than the body from whom it originates.

Technically, posthumous motherhood is already possible through the gestation of frozen embryos. IVF procedures frequently produce more good quality embryos than can be implanted in the womb; these “surplus” embryos are routinely frozen for future use. In the event of the intended mother’s death, the embryos may be destroyed, used for training purposes, donated to research or used for reproductive ends by the surviving partner or a third party (HFEA 2010e; HFEA 2010a). In its ethical consideration of posthumous assisted reproduction, the European Society of Human Reproduction and Embryology (ESHRE) makes no distinction between gametes and embryos, arguing that “the option of posthumous reproduction should be offered in the consent form for

¹²⁶ Although I focus on OC for age-related infertility, the question of confronting finitude in the OC procedure is particularly relevant for women with a cancer diagnosis who undergo therapies that compromise their fertility—whether extracting eggs represents a future legacy or a material and affective investment towards surviving the disease and its treatment (Hope 2007).

cryopreservation” (Pennings et al. 2006, 3051). Their discussion of the regulation of this practice is strongly dependent on the notion of the “existing parental project,” which references the cryopreservation of the reproductive material in the context of a couple with continued procreative intent (Pennings et al. 2006, 3050). As previously discussed, OC is often performed by women without a partner at the time of freezing, which implies a “parental project” of a different nature—one that has a futural orientation and is limited to the cellular material of a single individual. Unlike the embryo, the egg leaves the choice for a male partner or sperm donor for fertilisation open. This openness presents a unique situation both in the posthumous use of eggs and in the anticipation thereof in the informed consent forms.

The British HFEA provides fertility clinics with standardised consent forms, which their patients must sign prior to treatment. The consent form for the storage of eggs states that the Human Fertilisation and Embryology Act 1990 requires patients to decide “what will happen if you die or lose the ability to decide for yourself” (HFEA 2010b). This section is a substantial part of the consent form and states that the gametes will “be allowed to perish” in case no consent is given. It subsequently asks whether patients want the eggs to remain in storage for the treatment of a partner or the treatment of others, both of which require the filling in of further forms, prior to mentioning the option of donating eggs for research (HFEA 2010b; HFEA 2010c; HFEA 2010d). The option of third-party reproductive donation has a corresponding form for “your consent to the use and storage of your donated eggs” (HFEA 2010b, 3). Interestingly, however, the option of leaving the eggs to a partner refers to a form for “your consent to the use of your sperm and embryos for your partner’s treatment,” without mentioning “your eggs.” The absence of a possibility to consent to the posthumous reproductive use of cryopreserved eggs in the continued pursuit of a “parental project” appears to suggest that this possibility is not formalised. However, there is a different form dealing with “consent to the use and storage of your eggs or embryos for surrogacy,” which does address stored eggs’ fertilisation and transfer to a surrogate in the event of death (HFEA 2013a).¹²⁷ The HFEA’s informed consent forms thus address posthumous reproductive use of gametes explicitly, thereby positioning it as an institutionally acceptable choice rather than an exception, as is the case in the Dutch protocol.

In the Netherlands, there is not a uniform consent form analogous to the HFEA’s. Rather, each clinic has formulated its own statements of consent. Considering the forms of the University Medical Centre Utrecht [*Universitair Medisch Centrum*

¹²⁷ If a woman decides to make her eggs available for posthumous reproduction, she is required to undergo screening tests to ensure the safe use of this cellular material in the gestational mother’s body (HFEA 2000b).

Utrecht] (UMCU) and of the clinic MCK Fertility Centre [*Medisch Centrum Kinderwens*] (MCK), it is clear that the standard procedure is to let a woman's eggs perish after her death. If a woman freezing her eggs at the UMCU or MCK chooses to bequeath her eggs to another party after her death, she will need to leave, respectively, an official request addressed to the head of reproductive technologies or a notary statement that explicates who may inherit and use the eggs (UMCU 2012, 3; MCK 2014, 3). The informed consent forms both point to the possibility of posthumous motherhood and complicate the pursuit thereof, whether by administrative procedures or by stating—as MCK does—the clinic's policy of not working with gametes of deceased people. Such policies suggest that the pursuit of this technical possibility is not acceptable by these clinics' ethical standards. The forms' acknowledgement that the eggs can nevertheless be moved to another clinic point to the fact that the frozen eggs' physical mobility opens up a regulatory flexibility in which patients can move the cellular material into the regulatory contexts of institutions and nation-states that are in alignment with the intended parental project.¹²⁸

Although the British and Dutch medical authorities differ in their approach, both adhere to the ESHRE's standpoint that informed consent is crucial in “enabl[ing]” patients, and should be in place even if clinics do not themselves carry out posthumous treatments (Pennings et al. 2006, 3051). By calling it “enabling,” the ESHRE positions informed consent as a means through which patients can formally exert agency over what happens to the extracted eggs. Yet, as has become clear above, the forms also represent an institutional agency through the particular presentation of the available choices. The acknowledgement of the possibility of posthumous motherhood by an “institution of expertise” should be situated within a prevalent pre-existing trust invested in medical systems among patients (Corrigan 2003, 778–780). The inclusion of certain choices as standard options for which consent can be given through formalised procedures or by a tick of the box normalises them as acceptable decisions that patients may consider in the egg freezing process. The requirement for a separate declaration suggests the opposite and functions as a discouraging measure.

Informed consent practice has been criticised for overemphasising patient agency and autonomy, and disregarding the situatedness of individual choices within institutional constraints and within “prevailing cultural norms, values and systems of expertise [that] shape the field of choice” (Corrigan 2003, 789). Yet, the opposite impulse of “medical paternalism,” of questioning whether patients can be seen “as capable, autonomous decision makers who are trying to assert control over their psychological and physical selves, and over their lives,” has also characterised the history

¹²⁸ See Chapter 7 for a discussion of the transnational mobility of frozen eggs in a global context.

of reproductive health care (Wyatt 2001; Madeira 2012, 410).¹²⁹ The ESHRE's suggestion of a "obligatory minimum waiting period of a year" post-mortem before cryopreserved gametes may be used for reproduction may be considered an example of questioning patients' decision-making capabilities (Pennings et al. 2006, 3052). An alternative to these two positions is to read OC's informed consent procedures as specific types of performative speech acts.

These speech acts of informed consent exemplify Butler's understanding of performative utterances as "forms of authoritative speech [...] that, in the uttering, also perform a certain action and exercise a binding power" (1993, 225). In the contract of informed consent, ticking the box functions, quite explicitly, as a citation of authoritative speech that has binding power in determining the egg's destination. In other words, it is consent by citation. Butler moreover notes that "performativity must be understood not as a singular or deliberate 'act' but, rather, as the reiterative and citational practice by which discourse produces the effects that it names" (1993, 2). Informed consent can be understood as a citational practice of clinics and patients alike, in which posthumous motherhood is produced through its linguistic recognition. The continuity of consent stretching into the future, after the ticking and signing, suggests that the "sphere of operation" of these speech acts is not limited to the present time of utterance—particularly given that the conditionality of "when you die" pertains to a time to come that is not yet manifest. In *Excitable Speech*, Butler addresses the "open temporality of the speech act" by qualifying the "moment of utterance" as a "condensed historicity: it exceeds itself in past and future directions" (1997b, 3, 15). In keeping with this understanding of the speech act's temporality, the informed consent to the posthumous use of cryopreserved eggs can be read as a future performative: a speech act that harks back in time through its citation of authoritative speech, yet takes effect not only during, but also long after its utterance.

Because the declaration of the eggs' posthumous destination concerns the time after death, the informed consent practices function as a kind of will-writing. In "The Pleasures and Perils of Inheritance," Daniel Monk reflects on the writing of wills as a practice of "facing death [and] reflecting on one's legacies" that "bring[s] to the fore constructions of memory and identity, intergenerational relations, and the complexities of doing and undoing family and kinship" (2014, 239). Wills, he argues, are the means of the living to organise their legacy and pass on what is important in people's lives to the time after death. Egg freezing in anticipation of age-related infertility is oriented towards the biomedical passing-on of bodily material to a future self that is interested in having

¹²⁹ One pertinent example of the latter is the Dutch mandatory *bedenktijd* [reflection period] of five days after an initial consultation requesting an abortion (Kooistra et al. 2007, 409).

children. However, the practice may also entail a passing-on of eggs after death, to others that may take an interest in using the cells. The informed consent procedures that formally shape the passing-on of eggs permit a consideration of posthumous motherhood that has world-making effects in the future, but also reflects current understandings of identity and kinship within the “parental project” of OC. In other words, they effectuate the “doing and undoing” of the changing meanings ascribed to the eggs and their role in kinship formation.

Egg freezing presents people with a hitherto non-existing possibility of leaving eggs-as-legacy. The emergence of this novel cellular legacy follows a history in which practices of reproduction and inheritance have been intimately entwined. In *Willful Subjects*, Ahmed claims “the child is the one who *promises to extend the family line*, which requires the externalization of will as inheritance” (2014, 113; emphasis in text). Monk similarly references a history in which inheritance “has long been [...] almost the *raison d’être* of conventional, albeit subtly shifting familial practices,” particularly for women, who “hav[e] served as passive vehicles for the transmission of names, wealth and continuity across generations” (2014, 240). Egg freezing may provide an alternative for women to meet what Ahmed calls the “reproductive duty” by maintaining a futurity of motherhood (2014, 114).¹³⁰

The use of posthumous egg extraction and cryopreservation to ensure familial continuity after a death may be observed in the case of 17-year-old Chen Aida Ayah. This Israeli young woman was hit by a car in 2011 and was declared brain dead a week after the accident. In the first case of its kind, the family requested the local court of Kfar Saba to extract and freeze Ayah’s eggs for future reproductive use by a family member and was given permission to do so (Clarke 2012, 1332–1334).¹³¹ This case illustrates how OC provides the conditions of possibility for imagining and legally arranging the prolongation of the child’s promise to “extend the family line” to the time after death (Ahmed 2014, 113).¹³² Within a framework in which inheritance is intimately bound up with reproduction, the cryopreserved egg may attain a double function as both the

¹³⁰ Schellart’s *Eggs for Later* (discussed in Chapter 3) staged how the opposing interpretations of OC as postponement and extension could position egg freezing as both meeting reproductive intentions and foregoing them.

¹³¹ Under the pressure of public opposition, the family decided to drop their efforts to use Ayah’s eggs posthumously (Stewart 2011).

¹³² This case should be positioned within the Israeli context, a “strongly pronatalist” country characterised by the “extreme medicalisation of reproduction,” as national and religious identity becomes attached to reproductive body parts and practices (Shkedi-Rafid and Hashiloni-Dolev 2011, 293). With the most IVF clinics per capita in the world and extensive state funding for fertility treatments (including egg freezing), Israel’s endorsement of ARTs reflects “the centrality of reproduction in Jewish culture” (Kahn 2000; Birenbaum-Carmeli 2009). Jewish law, unlike its Roman Catholic and Islamic counterparts, permits posthumous reproduction (Pennings et al. 2006, 3050–3051).

reproductive means for maintaining familial continuity and the inheritable object itself.¹³³

In the speech act of giving consent to posthumous reproduction—lacking in Ayah’s case of posthumous extraction—the egg’s double function provides the occasion for establishing “intended kinship” bonds prior to conception. Frozen eggs leave options open to determine the intended kinship bonds with a genetic father or donor as well as a gestational mother or surrogate in the context of a “parental project” after death. Women in relationships may leave their eggs to their partners, as has happened in cases of posthumous conception with the frozen sperm of deceased men (Zafran 2007). A male partner could fertilise the frozen eggs posthumously, while a female partner could carry the embryo made with the frozen egg. Alternatively, women may decide to leave their cryopreserved oocytes to friends or family members in need of an egg. In each case, the posthumous reproductive intention, and particularly the specification of “named recipients” in informed consent, may generate a “doing and undoing” of intended kinship bonds prior to conception through the figure of the egg (HFEA 2010d, 2; Monk 2014, 239).¹³⁴

The expression of informed consent to the posthumous (dis-)use of the oocytes entails the discursive production of the eggs as socially significant entities that may become differently recognised as the patient’s legacy at the time of death. The classification of eggs as valuable or surplus material—and the concomitant willingness to donate them to other couples or research labs—has been studied widely (C. Roberts and Throsby 2008; Waldby and Carroll 2012). An important aspect of this process is its temporal dimension, and specifically the contingency of the meanings ascribed to the cells on the passage of time as organised by the age and vitality of the woman from whom the eggs originate.

The informed consent forms organise the shifting symbolic significance of these eggs at the time of death as, for example, genetic legacy, research material, or extension

¹³³ The UMCU consent form explicitly states that the eggs are not subject to inheritance law (2012, 2). Through mandatory informed consent procedures, Dutch and UK clinics seek to avoid inheritance claims to the reproductive cells after a patient’s death.

¹³⁴ In the first case of its kind, a British woman who died of cancer in her late 20s left her eggs to her parents, thereby affirming existing kinship bonds by anticipating the posthumous use of the eggs. She froze her eggs after her cancer diagnosis at 23 because reportedly “wanted her genes to be carried forward after her death.” According to her parents, she regarded her frozen eggs as “living entities in limbo waiting to be born.” Her mother intended, but did not gain permission, to ship the eggs to the US, where a clinic agreed to fertilise them with donor sperm, allowing her the possibility of carrying and birthing the child so she may raise it with her partner. Permission was denied by the UK high court because the daughter had signed the consent form for continued storage of her eggs after her death, but not the form consenting to surrogacy (HFEA 2013a). According to the mother, her daughter had stated when she knew she was going to die: “I want you to carry my babies. [...] I want you and Dad to bring them up; they will be safe with you. I couldn’t have wanted for better parents. I couldn’t have done this without you” (BBC 2015; Elgot 2015).

of physical embodiment. As discussed above, in posthumous fertility treatment, the eggs' legacy may take the form of potential progeny. Alternatively, consent to the research use of cryopreserved eggs suggests the woman's death provides the occasion for a redirection of the eggs' significance from serving a "personal goal" of having a genetically related child to serving a "public goal" of improved medical science and public health (Franklin 2006a, 85). In being passed on to research, the legacy of these eggs may be conceived as a contribution or "giving back" to biomedical science. The posthumous destruction of the eggs, in turn, re-enacts the death of the woman's body at the cellular level.

The consideration of these future classifications of the eggs entails a confrontation with one's own finitude. With modernity, anthropologist Margaret Lock argues, death and "associated beliefs about transcendence were disentangled from the realm of the sacred" and remade into a "medical matter." From the mid-19th century onwards, the physician's pronouncement of death has come to signal the "the end" of the body and person. With the loss of the cultural currency of "imagined futures after death," time becomes "compressed into the individual life cycle" (Lock 2003, 166). As the afterlife was displaced by the finitude of the medically-conceived body, so the continued viability of cryopreserved bodily material may provide an alternative "imagined future [...] after death" that is based on the temporal plasticity of the cell. When frozen cells are understood as "part of me," as in the case of Eggfreezer (see Chapter 4), and as instrumental in the process of what Landecker calls "becoming biological," it is medicine that facilitates a futurity beyond death through the continued viability of cryopreserved bodily material. The informed consent forms, accordingly, both present a confrontation with finitude and the possibility of cellular reproductive continuity "if you die" (HFEA 2010b). The possibility of posthumous motherhood may thus open up a reconsideration of the relation between reproductivity and death, in which the end of reproductivity becomes an ethical choice rather than a biological necessity.

Conclusion

Frozen eggs—and the reproductive potential they embody—change, challenge and reflect existing models of reproductive ageing and motherhood. If the intention of freezing eggs "for later" is to enable reproduction in spite of age-related infertility, egg freezing is the quintessential technology for facilitating the contentious construct of "older motherhood." In this chapter, I have discussed three new forms of older motherhood that emerge with OC.

Firstly, as counterpart to the anticipatory act of freezing eggs discussed in Chapter 3, the possibility of a type of premeditated willful older motherhood emerges with OC's second phase, in which the embryos conceived from previously-frozen eggs are implanted. The association of older motherhood with willfulness became apparent in

Buttle's story, which, as a limit case, revealed how norms regarding the appropriate timing of reproduction may be expressed as health and welfare concerns, but are nevertheless informed by historically-specific cultural systems of ageing pertaining to gender, sexuality and labour relations. As Rachel Bowlby notes in *A Child of One's Own*, cases like Buttle's are "only the more sensational end of broader cultural concern with the state and significance of parenthood which is relatively new, and is prompted [...] by the sense of swiftly shifting or disintegrating norms of both bearing and rearing" (2013, 6). Both the criticism of Buttle and the objection to OC for its transgression of "normal reproductive years" reaffirm the chrononormativity of reproduction in the face of the "disintegra[tion]" of temporal "norms of bearing and rearing" through the use of ARTs (Bos et al. 2012b, A4145). As Buttle's case reveals the temporal conditionality of Ahmed's "reproductive will," the willfulness of OC's older motherhood follows from both the transgression of the will-to-reproduce earlier in life and the will-not-to-reproduce after age-related infertility.

Secondly, the autologous intertemporal egg donation of OC shifts the relation between maternal age and kinship bonds by providing the means for genetically related motherhood later in life. The documentary's story of donor-egg IVF illustrates how Buttle seeks to establish parental relatedness through "kinship work," the practice of which is not limited to the family or the fertility clinic, but exists within broader cultural frameworks of the public recognisability of familial, generational and age identities. Given the increasing popularity of heterologous egg donation, new mother's ages may begin to function as a marker both of a decreasing probability of genetic relatedness and of an "interventionist motherhood," rendering the otherwise invisible use of ARTs recognisable. However, the intergenerational "genealogical stretch" of OC's older motherhood may shift the logic of this age-related recognisability of genetic relatedness.

Thirdly, OC creates a tension between the body's mortality and the egg's temporary immortality, from which the technical possibility of posthumous motherhood follows. Although as yet an unrealised possibility, its consideration in informed consent procedures nevertheless has world-making effects by discursively producing the temporally-contingent reclassification of eggs as research, reproductive or waste material. In the speech act of informed consent to posthumous reproduction by specific "named recipients," the egg functions as a node for the discursive construction of "intended kinship" relations. As the cryopreserved egg made reproduction recognisable prior to conception—which emerged from the understanding of OC as the start of a reproductive process in *Eggs for Later* and in *Eggfreezer's* framing of the egg photographic portrait as future child—so OC can function as a practice of "doing and undoing" kinship bonds prior to conception (Monk 2014, 239). Yet through the possibility of posthumous conception with cryopreserved eggs, the reproductive process

becomes not only recognisable in earlier stages, but also later on in life, beyond the limitations of mortality.

In the next, and final, chapter I explore how the egg further complicates the limits of mortality and the linearity of ageing in regenerative medicine and address the spatio-political implications of the unprecedented global mobility of eggs now that they may be frozen.