



LAPIN YLIOPISTO
UNIVERSITY OF LAPLAND



University of Lapland

This is a self-archived version of the original article. It may differ somewhat from the publisher's final version, as the self-archived version is typically the accepted author manuscript.

Good donors, bad donors and oddities in the family tree

Tammi, Ronja; Homanen, Riikka

Published in:
BioSocieties

DOI:
[10.1057/s41292-024-00345-y](https://doi.org/10.1057/s41292-024-00345-y)

Published: 21.12.2024

Document Version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Tammi, R., & Homanen, R. (2024). Good donors, bad donors and oddities in the family tree: genomics, donation and reproductive citizenship in Finnish egg donor accounts. *BioSocieties*. <https://doi.org/10.1057/s41292-024-00345-y>

Document License
CC BY

Publisher Rights
Copyright © 2024, The Author(s)



Good donors, bad donors and oddities in the family tree: genomics, donation and reproductive citizenship in Finnish egg donor accounts

Ronja Tammi¹ · Riikka Homanen²

Accepted: 2 December 2024
© The Author(s) 2024

Abstract

Research on reproductive citizenship has focused on prospective or intended parents and how they are (or are not) accorded responsibility, entitlement and support in creating a family. With third-party reproductive arrangements, reproductive tissue donors and surrogates have emerged as new reproductive citizens to be governed in public policy, law and medical practices. In this article, drawing on 23 in-depth interviews of Finnish egg donors, we show how the donors take on roles characterised by contradictory moral responsibilities. The donors both downplay and acknowledge the significance of genetic connection to the donor children. By paying attention to selective reproductive technologies used to screen out gamete donors perceived as unfit to donate, we will discuss egg donation as a form of ableist reproductive-biological citizenship where 'good' citizens must know and care not only for their and their offspring's health but also for the implications of their genome for someone else's family. However, not all donors align with the ideal type of a good and able reproductive citizen. Some challenge this ideal, crafting reproductive capability and kin relations for third-party reproductive citizens in ways that diverge from the prevailing civic norms.

Keywords Genomics · Egg donation · Reproductive citizenship · Finland

✉ Ronja Tammi
ronja.tammi@helsinki.fi

¹ Faculty of Social Sciences, University of Helsinki, Helsinki, Finland, P. O. Box 18, Unioninkatu 35, 00014 University of Helsinki

² Faculty of Social Sciences, University of Lapland, Rovaniemi, Finland, P. O. Box 122, Yliopistonkatu 8, 96101,



Introduction

Genetics has become a naturalised and dominant way of understanding ancestry and kinship, which has in turn modified social categories of belonging—to family, community and nation etc. (e.g. Oikkonen 2017; Nordqvist 2017; Strathern 1999). Having genetic resemblance—referring to physical inherited resemblance—is largely seen culturally as connecting people and creating social ties in itself (Ehlers 2021; Strathern 1999). Assisted reproductive technologies (ARTs) reproduce but also challenge such cultural normativity and assumptions about sharing genes, relatedness and ancestry (e.g. Franklin 2001; Siermann et al. 2022; Thompson 2005). For instance, while donor-conceived children do not share genes with (one of) their intended parents, practices of matching donors and recipient intended parents (IPs) based on phenotypic resemblance at the clinics can be seen as a strategy to make it appear they do, thus, reasserting the importance of genetic belonging in families (Griffiths 2016; Thompson 2005; Homanen 2018).

According to previous research, egg donors are often assigned by policy and fertility providers a distant third-party role in the donor-reproductive arrangement, whereby they are erased from the family relations created, downplaying the significance of genetic resemblance or any other link for that matter (e.g. Almeling 2011; Nordqvist and Gilman 2022). In recent decades there has been a shift towards embracing ‘openness’ in legal, medical, and kinship practices related to donor conception (e.g. Frankfurth 2020; Gilman and Nordqvist 2018). Anonymous gamete donations are being prohibited, and identity-release systems where the donor-conceived children may on request find out the identity of their donor are increasingly common in many Euro-American countries, including United Kingdom, Norway, Sweden, Austria and Switzerland (Blyth and Frith 2015).¹ This framework of openness, according to Nordqvist and Gilman (2022), has introduced competing moral obligations for donors, creating tensions within their lives. Donors are simultaneously expected to respect the boundaries of recipient families (and keep their distance) and be available for the donor offspring, requiring careful navigation of the delicate balance.

Being a donor, then, involves making genetic resemblance (in)significant. In this article, we want to explore the ways this takes place amongst egg donors in Finland, which operates an identity register with a release system. We argue that relating to genetic resemblance in different ways articulates various positions towards what it means to be a ‘good’ donor: to have donor *virtues and rights* and to take on donor *responsibilities*. Further, we argue that donors positioning themselves in relation to genetic resemblance is generative of new forms of *reproductive citizenship*.

Reproductive citizenship refers to the “[self-] government and regulation of persons who are recognised and included as members of a community or nation state by virtue of their capacity and entitlement to create and build a family” (Shaw 2022, p. 2; see also Turner 2001). Research on reproductive citizenship has largely focused

¹ Despite this trend, some countries, including fertility hubs like Spain, Ukraine and Estonia, continue to maintain anonymous systems and show no signs of changing them.



on prospective or intended parents (but see Surtees 2022; Cattapan 2015) and the ways they are (or are not) afforded responsibility, entitlement or support in creating a family (e.g. Erel 2013; Gibson 2022; Nahman 2013; Riggs and Due 2013; Trail and Goedeke 2022), creating (reproductive) vulnerabilities for some (Riggs and Due 2013). However, under third-party reproductive arrangements, gamete and embryo donors, and surrogates have emerged as new reproductive citizens to be governed in public policy, law and medical practices.

Drawing on in-depth interviews of 23 Finnish egg donors, our study confirms findings like Gilman and Nordqvist's (2022): 'good' donor citizens know their place but remain available for the children (see also Almeling 2011; Gilman 2020). While Gilman and Nordqvist do not apply or theorise in terms of reproductive citizenship, in this respect our studies coincide considerably. This is not, however, the end of the story. Our reproductive citizenship approach, that (also) pays attention to biotechnological and clinical practical aspects of natality in ART practices generating "good" citizenship, allows us to see new ways in which genetic resemblance is made to matter. We address the donors' take on the selective reproductive technologies used at clinics to screen out gamete donors seen as unfit to donate. We will discuss egg donation as a form of ableist² reproductive (biological) citizenship where 'good' donor citizens must know and care not only for their own and their own offspring's health but also for the implications of their genome in someone else's family. Yet not all donors align with this idealised type of a 'good' and able third-party reproductive citizen; some question it and begin to craft unconventional reproductive capabilities and kin relations for third-party reproductive citizens.

Reproductive biological citizenship and donors

We approach egg donation as a form of reproductive citizenship. It has been argued that while reproduction and family making have always been part of citizenship, reproductivity has become a central citizenship norm in contemporary western societies (Turner 2001; 2008; Roseneil et al 2013; Shaw 2022). Low fertility rates have resulted in states promoting reproductivity as foundational to social participation (Turner 2001; 2008): parenting is regarded as a normative part of adult identity and belonging, especially for women (Roseneil et al 2013; Shaw 2022). As with wider scholarship on citizenship studies, reproductive citizenship is connected to (gendered) rights and responsibilities of citizens (Mazur 2002; O'Connor et al 1999; Shaw 2022). These include rights and responsibilities concerned with if, when, how, and with whom to procreate and create families.

With the rise of ARTs, new kinds of families that would not exist without these technologies are created (Golombok 2015). Medical and social infertility can be

² We understand ableism in line with Campbell (2001, p. 44) who defines it as "a network of beliefs, processes and practices that produce a particular kind of self and body (the corporeal standard) that is projected as the perfect, species typical, and therefore essential and fully human. Disability, then, is cast as a diminished state of being human".



resolved, at least for some. Depending on the national context, intended parents, regardless of gender, sexuality, ethnicity and class, may claim their right and fulfil their duty of reproduction. However, through national legislation and policy on, e.g. reimbursement of ART costs, states still restrict the extension of parenting rights based on assumptions about who is regarded as a good parent (Briggs 2017; Kaur 2022; Mohr and Herrmann, 2022; Shaw 2022). Reproduction remains stratified, and while some normativities may unravel in the ART practices, others, such as hetero-, homo-, couple- and chrononormativities as well as norms about abledness are often reaffirmed (Franklin 2001; Freeman et al. 2014; Thompson 2005; Homanen 2021).

To escape restrictions people are also increasingly travelling for ARTs unavailable for them in their home countries because of legal barriers, high prices and long waiting lists, among other factors. However, only a few can become such global biocitizens crossing geographical and regulatory borders to access treatments (Cooper and Waldby, 2014; Franklin 2011; Hammond 2024; Nahman 2013; Namberger 2017). Further, while reproductive travellers might overcome their unwanted childlessness, that does not change the fact that they are failed reproductive citizens in their home country (Riggs and Due 2013).

With the advent of ARTs, which generally reiterate understandings of family based on biology, reproductive citizenship can be viewed as taking a form of biological citizenship where certain biological presuppositions are linked to what it means to be a good, potential, troublesome or impossible citizen (Roseneil et al 2013; Shaw 2022) in new, technologically mediated ways. More specifically, by biological citizenship we refer, following Rose and Novas (2005), to “all those citizenship projects that have linked their conceptions of citizens to beliefs about the biological existence of human beings, as individuals, as families and lineages, as communities, as population and races, and as a species” (p. 2).

Ideas about the role of biology in human worth are encoded in practices of reproductive technologies, from selective abortion and preimplantation genetic diagnosis to embryo selection and genetic screening of donors (Wahlberg and Gammeltoft 2017). Most pregnancies are becoming potentially selective—or “tentative”, to use Rothman’s (1986) term—with selective technologies being increasingly made routine. Under contemporary health norms, responsibility for the self encompasses even genetic acts of choice, meaning that biological citizens must not only know and care for their and their offspring’s health but also for the implications of their genome (Ettorre 2005, p. 117). Biological or genetic destiny is perceived as knowable, mutable, improvable—as eminently manipulable through biotechnologies and genomics. (Boardman 2014; Pavlovic et al 2018; Rose and Novas 2005). The downside of the hope for enhanced biological and genetic futures is anxiety and fear about not being able to fulfil one’s reproductive-biological citizen responsibilities, fitting in or belonging, and producing gametes and babies of (bio-)value.

Riggs and Due (2013) have argued that in societies where the heterosexual mode of reproduction is an integral part of citizenship against which other family forms (queer, ART, adoption and so on) are measured, these norm-deviating families and people remain susceptible to reproductive vulnerability. Reproductive vulnerability refers to the possible denial of access to citizenship and the social and civic benefits it affords in cases where individuals are not able to reproduce through (hetero)sex



for medical or social reasons. Peoples' perceptions of themselves and others as good reproductive citizens are compromised by the inability to meet the heteronormative norm. However, to use Ingraham's (1994) conceptualisation, the *heterosexual imaginary* prevalent in our societies conceals these vulnerabilities created by the institution of heterosexuality and its standards for naturalised mode of reproduction.

With third-party reproductive arrangements, new reproductive (biological) citizens with different responsibilities, rights and roles than the intended/prospective parents emerge. Donors on a global scale are more often than not in a position where they could almost never themselves buy reproductive tissue or rent a womb (Cooper and Waldby 2014; Namberger 2017).³ Their reproductive labour is productive of someone else's family, extending someone else's fertility so intended parents can fulfil their reproductive desires and duties and claim their reproductive rights. That is particularly the case given their position within reproductive politics and policy: legislative and medical clinical practices tend to erase the donor from family relations even when there is an identity-release system in place (Nordqvist and Gilman 2022). Donors' reproductive capacity and abledness are measured in their commodified potential for bio-value. If donors 'fail' to assist intended parents to achieve (full-term) pregnancies or healthy babies, do they bear responsibility for the future of the intended parents, donor children and the nation? Could we extend the concept of reproductive vulnerability to cover donors, and if so how? Is it possible to resist the assigned subordinate donor roles and build alternative ways of belonging and reproductive abledness? These are some of the questions regarding reproductive citizenship we answer in this article.

Egg donation and donor screening in Finland

Egg donation is largely a private business in Finland and until very recently was only available in private clinics. Donation is regulated by the Finnish Act on Assisted Fertility Treatments (1237/2006). The law legalised gamete donations and fertility treatments for single women and, in effect, lesbian couples, but criminalised surrogacy, and banned anonymous donation and any remuneration of gamete donors. A state donor identity register with an identity-release system was established. All gamete and embryo donors since 2007 have been registered, and children born through donor ART may on request receive identity information about the donor after turning 18. The intended parents are not at any point entitled to this information. The register was originally built on arguments about donor-conceived children's rights. Children born as a result of donor treatments were seen as having the right and need to know their genetic origins (Government Bill HE 3/2006; Grand Committee Report 1/2006; see also Eriksson 2017, pp.130–131).

Furthermore, the Finnish legislation requires donors to be free of any "serious" genetically inheritable conditions without specifying what that means, leaving

³ In Finland, donors are typically students and/or young adults in working life, some of whom might afford donor IVFs or even surrogacies later in life.



it to the medical community to decide. Using selective technologies for any other purpose than weeding out illness is banned (Act on Assisted Fertility Treatments 1237/2006).

In clinical practice in Finland, there are age limits to donation. The law insists donors are at least 18, the age of legal majority, but there is no upper age limit. In practice, all private clinics in Finland only accept women under 35 as egg donors. The screening involves a health survey filled out before an appointment with a doctor, an interview with a doctor about the donor's own health history and that of their immediate genetic family and testing for infectious disease and genetic screening that varies a little between clinics. Public IVF clinics only screen for chromosomal abnormalities but some private clinics also specifically test for cystic fibrosis. There is no routine protocol for any other genetic testing of donors, but if the intended parents are known to be carriers of a condition the donors will be tested too.

The 2006 legislation also requires service providers to inform and “counsel” recipient IPs and donors about their and other parties’ legal status and “the potential impact the biological origin of the child to be born as a result of treatment may have on the relations between family members and on ways to prevent or alleviate any problems that may arise” (Act on Assisted Fertility Treatments 1237/2006, Sect. 9). The practical solution has been for clinics to require both donors and intended parents to see a therapist about these issues before making treatment decisions. Although the doctor has the final say, the therapist’s opinion is valued greatly around any kind of treatment decision. Psychological counselling is also, then, at least in effect, screening for fit donors (see also Spar 2006; Homanen forthcoming).

Data and methodology

The data for this paper is part of Riikka Homanen’s larger project on reproductive outsourcing in the context of Nordic (transnational) gamete donation at private fertility clinics in Finland, and Ronja Tammi’s PhD project on everyday ethics of biogenetics in Finnish tissue donation.

For this paper we analyse in-depth interviews with 23 egg donors who have donated their ova at private Finnish fertility clinics. The number of donations ranged from one to five, and one donor was going through her first donation cycle. The donors were aged 20–44 years and the earliest donation took place in 2004. Thirteen of the interviewees did not have children of their own. The rest (10) had one or more children. For three donors, their donations were made before the 2007 legislation, making them anonymous donors. One of these three had also donated after the Fertility Treatment Act came into effect.

In the interviews, the interviewees were encouraged to tell their own ‘donation stories’, in their own words, focusing on the topics they considered most important. A topic guide was also used to probe areas of research interest not spontaneously raised, including their thoughts on the significance of genetic resemblance and relations to the intended parents and the donor offspring.

Interviews with egg donors were conducted in 2019–2020. The interviews, lasting between approximately 50 and 120 min, were audio recorded and



transcribed verbatim, with the transcripts then imported and thematically coded using the Atlas.ti programme. The study was approved by the Ethics Committee of the Tampere Region, and informed written consent was obtained from the interviewees.

Sharing genes and (un)relatedness

In general, the donors we interviewed simultaneously downplayed and acknowledged the significance of genetic resemblance and relatedness to the donor children. They enacted exclusively non-parental connections to donor offspring by, for example, emphasising the meaning of pregnancy, social parenthood, epigenetics, and the intended father's genes in making kin and people (see also Homanen [forthcoming](#); Gilman 2020). Previous studies have shown how donors often differentiate between themselves as mere "providers of the cell or the seeds" and the intended parents as "real parents" who carry, nurture and nurture the donor-conceived children (Gilman 2020; Nordqvist and Gilman 2022; Thompson 2005). This way they thus step back and distance themselves from the genetic links they share with the donor-conceived people.

When we asked donors whether they had thought about "what the donor-conceived children could be like", several denied that they had, or stated that friends or relatives, such as their own children, were more interested in the subject. In this way they distanced themselves affectively from the donor offspring like 'good' third-party reproductive citizens are supposed to. Donors showing 'too much' interest in donor-conceived children easily get screened out from donor programmes.

Here, Donor 1 answers our question:

I've never thought about that, although I'm aware that he/she [the donor-conceived child] has my genes, but I haven't gone so far as to think that if someone walking down the street looks like, for example, my own children, that I would be like "oh, maybe their cells came from me". It's someone else's child and an individual raised in a different environment; I don't have anything to do with it. (Donor 1)

The egg donor, here, and in our interview material more generally, downplays the importance of her genetic influence on the personal features of the donor-conceived children. In addition to the environment and milieu, the donors typically shifted the focus away from their own genome and its effects onto the intended families and their characteristics: several donors, for example, emphasised the biogenetics of ontogeny, where the genes of two people are combined in one individual, as in this exchange:

Q: Have you ever wondered what they would be like, the children that have maybe been born, what they would look like or...

A: No, not really, no. I mean it depends so much on what gets mixed into it [referring to sperm fertilising the egg]. (Donor 15)



Donors' perceptions of the passing of characteristics were generally ambivalent. They did acknowledge the cultural power of genetic ties in constructing family relations, and many were personally curious about perhaps seeing the resemblance in the future (see also Nordqvist and Gilman 2022). Sometimes they attributed any curiosity about resemblance to their relatives:

I haven't even really thought about it since there are so many other things that affect the [donor-conceived child's] appearance than just my egg. I mean my own children look very different from each other. Neither of them has purely my looks, so it's pointless to think that the children might look like me, but this topic has made my son wonder, made him wonder whether they [the donor-conceived children] have my looks. (Donor 2)

The donor here again affectively distances herself from the donor offspring but, at the same time, she enacts a sense of connection towards donor-conceived children, albeit via her son for whom the (potential) resemblance does matter according to her (cf. Jadva et al. 2011). She states that she herself doubts that her looks will be passed along in any case, since two sets of chromosomes determine children's characteristics, as her own children demonstrate. It could be argued that when genetic resemblance is a concern for genetic half-siblings, it is still not as culturally dangerous as it is when donors are concerned. We mean by this that siblings do not have the exclusive or non-contingent status that parents have in relation to their children. Nevertheless, affinity towards donor children is expressed.

Some donors constructed other meaningful connections with the donor-conceived children. As prior studies on donor motives and experiences show, donors make biological connections in socially significant ways that do not straightforwardly accord with preexisting kinship categories (Almeling 2011; Gilman 2020; Klotz 2014). These alternative relationship narratives in our material included "a godmother", "a fun additional person in the family tree", and "a friend". By making sense of their connection with donor-conceived children in these ways, donors are again using culturally less 'harmful' personal and kin relationships as narrative resources. In cultural terms—godmothers, family friends, and odd members of the family tree—like siblings, do not share the exclusive or non-contingent status of parents. It appears, in line with Nordqvist and Gilman's (2022) study of gamete donation, that there is a moral obligation—for a respectful reproductive donor citizen—to respect the boundaries of recipient families and the exclusive character of their parenthood in these ways.

However, a couple of our donors did not downplay the significance of genetic resemblance in quite the same way. For them, the donor-conceived children did represent their own offspring as well:

Part of the reason I went to donate eggs is that I don't have children of my own. And you can't know if one never gets any [children] if you don't have an intimate relationship... so it is a nice thought that someone can [laughs] benefit from my quite good genes [laughs]. And in a way also that I then have offspring in them. (Donor 12)



I had this idea that I am less of an embodied and biological being, which is [part of] my selfhood, who has never been pregnant or given birth. [By donating] I thought I would gain this other part and then myself would actualize fully which is due to me, my body procuring an offspring [...], even if I never have a child of my own. [...] I feel that donating eggs is a considerably more characteristic way for me to be in contact with my body's reproductive capacity than the thought of [being pregnant myself because of] contraception failing or something like that. (Donor 16)

The donors imply that if they never have children of their own— biogenetic children raised socially as their own in a nuclear family—at least their genetic children are out there somewhere. While donors are typically perceived as transferring their reproductive capacity to intended parents under third-party reproductive arrangements (Lafuente-Funes 2020), these donors do not completely follow that rule. The children born from their eggs might not be raised by them but they remain their kin, and they actualize the donors' reproductive potential. This does not fully align with the ideal third-party reproductive citizen role assigned to donors in law, clinical practice and reflected in the majority of the donor accounts.

Being available, facilitating ancestral information

The existing framework of organising openness in Finland requires donors to be available to donor offspring for them to learn their origin. This is yet another responsibility of a third-party reproductive citizen. The establishment of donor identity-release systems internationally has been seen as part of a larger cultural shift to 'openness' which assumes it is in the child's best interest to know the 'truth' about their (genetic) origin (Gilman and Nordqvist 2018; Herbrand and Hudson 2015).

The donors we interviewed were ready to meet their donor offspring. They seemed attuned to the identity register's policy function of traceability to ensure openness. Given the possibility that the children will contact them at some point, donors must be prepared for this, mentally at least. Meeting the offspring was mostly seen as significant in terms of the offspring learning more about their origin, which is more than simply biology for the donors, as this comment shows:

I think that it's easier to form a self-image when you know what it's like, your own family history and so on [referring to the donor's family]. Of course, those things are not genetically inherited. Some features and appearance-related and other stuff are inherited, you know brown eyes or blue eyes and the shape of your nose and if there are freckles and these things are inherited, but then... of course not these stories and other things that run in the family. They are not inherited unless one contacts the donor as an adult wanting to know about one's ancestry and family history. (Donor 3)

In the donor accounts, identity building requires knowing the family history of the genetic parents. For children to truly know who they are, it is sometimes important to know the source of their difference from the intended parents:



Q: And you said how people want to know their own roots. So, what would you include in that, those roots?

A: [...] a certain type of background [...] because, especially at that stage of growing up, so many people might be thinking like who I am and why am I like this. [...] I've sometimes wondered if it [the donor-conceived child] gets a character trait or something like that, or somehow is really different from the [intended] parents. (Donor 6)

Meeting or getting in touch was something the offspring were left to lead, in line with the policy: it is the children receiving the identity information of donors and no one else is entitled to that information. Nordqvist and Gilman (2022) argue that there appears to be a second moral imperative for donors, to be available to donor children to support their information needs, and if the children then want to pursue a relationship, it should be on their terms. Donors, then, need to carefully navigate the competing moral obligations to maintain the delicate balance between being available to donor offspring and respecting the boundaries of recipient families (Nordqvist and Gilman 2022), to be 'good' reproductive citizens.

The importance of knowing one's genetic ancestry and family history was explained by, say, reading the life of a donor-conceived child through cultural narratives about adopted children where finding the genetic parent is seen as essential for a child's identity and well-being (on adoption practices see e.g. Andersson 2016; Myong, 2016). One donor compared sharing donor information to genealogical family research, saying "It's quite nice how people do genealogical research and learn about the lives of people who are related to them, even if they never directly communicated with them" (Donor 4). The popular reality TV show, *Long Lost Family*, that airs in Finland, was also mentioned as evidence of the importance attached to finding genetic relatives (Donor 9).

The donors, in conclusion, position themselves as—and take responsibility for being—facilitators of information about genetically inherited characteristics, as well as the roots and ancestry deemed important for donor-conceived persons' emotional well-being and identity building, *because* of the genetic link. The donor accounts effectively enact a form of biologized identity and reproductive citizenship in third-party reproductive arrangements (for the donors).

Carrying genetic defects = giving and selling faulty gift products

In the context of sharing their thoughts on medical issues, donors generally did not downplay genetic resemblance. On the contrary, health conditions were a specific area where donors saw biographical information as potentially important for donor offspring and felt a duty to inform them (see also Nordqvist and Gilman 2022).

Donors told us they think it is important that donor children know about diseases or susceptibility to disease for medical reasons. Sharing information about genetic resemblances was seen as significant because donor offspring could then take preventative action and seek medical help. The donor register with an identity-release system was seen as a device ensuring traceability (see also Homanen



forthcoming). This was considered important in cases where conditions undetected in the original screening might emerge later in the donor's life. The following comment includes all of these arguments:

If there were some diseases like diabetes or something like that, even though of course there are many hereditary diseases that actually prevent you from donating in the first place, [I would like to personally know if I was a donor-conceived child]. You know, if there were diseases or conditions which you could affect with your lifestyle choices or something. [...] [Donor's friend's name] donated [egg] cells and then she was diagnosed with some kind of a hereditary disease that she was not aware of [at the time of donation it was not tested for at the clinic]. She wanted to get in contact [with the intended family] but the register system did not exist back then since this was a while ago. [...] So, I think it [the donor register] is great if, for example, they were to find 'a blood clot z14', I really do not know anything about diseases, but something like that [a gene predisposing to blood clots]. So, it is great that it [the register] exists. (Donor 6)

As in prior research on donors' perceptions (e.g. Almeling 2011; Amor et al 2018; Nordqvist and Gilman 2022), our interviewees all described health screening through surveys, interviews and medical tests as in principle a good thing. As Donor 5 put it, when asked their thoughts about screening in general:

I didn't take it [mapping out the donor's family's health and disease history] as insulting. I mean, I guess you would think that if there's like a genetically inherited disease, it would not be nice to go and donate if there was a risk for someone to get a kind of a faulty egg cell. (Donor 5)

The donors did not want to be implicated in passing on bad genes. To their thinking, resemblance in terms of sharing illness is by default something that should be avoided. This accords with the results of studies exploring genetic counselling for prospective parents either carrying a genetic defect or/and suffering from an impairment caused by such a defect (Franklin and Roberts 2006; Kaur 2022; Rapp 2000; Shakespeare 2013; Skirton et al 2015), as well as studies of medical professionals' views on genetic screening (Ettorre 2005; Meskus 2009). Screening provides hope and choice for these prospective parents to have a child free from the same disease. At the same time, screening is also part of enacting conditions and even genetic carrier status as inherently undesirable and unthinkable (see Campbell 2001).

Donors are not, however, (intending to be) making children for themselves. This is also evident in their vocabulary when talking about health screening. Again, egg donors distance themselves from parental positions by using the terminologies of donation, gift giving or bio-product selling rather than talking about parents passing defective genes through to their own family. Here one donor uses ableist narrative of commercial ART settings:



I mean I wouldn't want to pay 50 thousand euros for getting a Down's [syndrome] kid.⁴ (Donor 8)

In a commercial exchange, disability and impairment are positioned as 'flaws' that undermine the value of that investment made. Within the commercial framework (too), donor screening can be seen to prevent the intended parents from getting a 'faulty' gift product from a 'bad egg vendor'.

The ableist narrative was further emphasised by portraying health as a virtue and a crucial trait of an ideal donor candidate and third-party reproductive citizen. We spoke with one donor who throughout the interview considered himself an ideal donor mainly because they regarded themselves as having healthy genes:

Well, firstly because I am, like, really healthy. [...] I do not have anything. There are no burdens within the family when it comes to illnesses. Our family is really healthy, and I am really healthy. [...] So, I am not passing on anything. (Donor 2)

It is as if, in reproducing children, the carrying let alone the manifesting of genetic defects is almost a 'sin' for a donor. Cederström and Spicer (2014) have theorised how healthiness and ability have become a moral demand in our society (see also Lemke 2005, see also Campbell 2001). Taking up this idea, Kaur (2022) argues how this ideology "seeps into social perceptions of disease and disability, particularly due to the availability of genetic testing and the expansion of ARTs" (p. 75). Simultaneously, donor candidates included into the community of accepted donors and recognised as reproductive citizens must pass the (ever increasing) genetic defect screenings.

Anxiety over belonging and responsibility for one's own genome

In general, most of the donors we interviewed idealised health as a characteristic of a good donor imposed on them by the clinics. Most of the donors in our study performed compliance with such ideal reproductive donor citizens. They also knew that, if one does not meet the health criteria, the gates to donor programmes stay closed. In the psychological counselling, 'wrong answers' about reasons to donate or thoughts on one's parental relations to the donor offspring might result in failing the psychological evaluation with the therapist pathologizing the donor's reflections and personality (cf. Almeling 2011, pp. 52–83). Our donors were very aware of this system: they talked about knowing how there were 'right' and 'wrong' answers around, say, motives for donating.

⁴ Unlike e.g. X-chromosomally inherited Fragile-X, Down's syndrome is not typically hereditary, but its causes are typically intertwined with events in embryonic development, and its risk is intertwined with, for example, the age of the genetic mother. The donors know that in Finland egg donor treatments are not as expensive as this comment suggests. They also, obviously, know that they themselves are not paid that kind of sum, but they sometimes talk in more global terms.



Potential donors with an infection or weighing over the BMI limit set by the clinic will also be rejected, but those rejections might only be temporary. Donors are welcome to offer to donate again if and when they have developed what are perceived as more mature reflections (Homanen [forthcoming](#); cf. Almeling 2011), their infections are cured, or they have lost weight (Homanen [forthcoming](#)). With genetic conditions this is not applicable.

Donors we interviewed all expressed in one way or another that their motivation was to help people in need of gametes, and donation was often an achievement with special meaning for them. Many, if not all, had a pathway to egg donation through donating blood or bone marrow, or doing voluntary work: egg donation offered another means of transferring something of themselves to those in need. One donor explained how the long-term aim of donating eggs formed after getting successfully pregnant and having a child following an earlier miscarriage:

I can't remember if I made the decision while being pregnant or after my child was born, but I decided that if at some point I am considered good enough to be a donor then I will donate my eggs. (Donor 7)

While the donors realised the value of their eggs, at least to the intended parents, they generally did not express any emotional attachment to their cells (cf. Nordqvist and Gilman 2022, pp. 69–104). This was the case even where it was considered that eggs were 'a gift of life' rather than that gametes are just tissue that will go to waste if not donated, as some donors did think.

However, donors expressed feelings of nervousness and anxiety about being considered healthy enough. They expressed feeling "relieved for being healthy" (Donor 23) and having been worried about the "blood test results coming back and them [the clinic staff] saying that 'Yes you have something awful'". (Donor 18).

Some donors specifically expressed anxiety over not being healthy enough to be accepted onto donor programmes:

The nerve-racking thing in the beginning was... since I was so settled that I wanted to donate. And [even though] my own children are healthy, I was nervous, wondering if there's a genetic defect somewhere in my family or ancestry which would prevent me from donating. So that was something I was nervous about back then [before being admitted into the donor programme]. (Donor 8)

One donor also said how relieved and happy they were when they were accepted and could donate:

It felt so good to find out after it all [screening and selection] that I could help if I wanted. (Donor 23)

While a few donors were worried about finding out something that might influence having children of their own, others were not. Many had already had healthy children of their own (which is very much appreciated at the clinics in its own



right). For instance, Donors 7 and 8 (quoted above) already had healthy children by the time they donated, suggesting that was not such a big concern. Donors furthermore explicitly expressed how afraid they were that they would be rejected as a donor, and then how good it felt when they were finally accepted.

Thus, insecurities about being accepted onto donor programmes engenders affective responses in itself—bad feelings about potentially not being an able third-party reproductive citizen meeting the genome norms of a good egg donor. In terms of critical disability studies, this is exactly what happens if one is rejected: socially one is rendered disabled (from donating) because of a genetic impairment (Oliver 1983; Shakespeare 2013), in this case, in the context of third-party reproduction. Who would want to be labelled as having ‘bad genes’ whose reproductive behaviour (to donate) needs to be restricted in this way? That would mean not belonging to a nation of able-bodied reproductive citizens.

Fears of being not good enough to be accepted onto donor programmes did not necessarily mean that the donors questioned the genetic health criteria of the clinics. Sometimes it was quite the reverse: some donors were surprised that conditions they had were not considered an obstacle to donation at the clinics. They were also worried over the health of the donor children, like Donor 10:

I have a hereditary migraine, which the doctor told me wasn't an issue. But then I have often thought about how horrible gene it is to pass on. [...] None of my children has it though, at least for now, so maybe it can turn out just fine. (Donor 10)

This donor has on many occasions returned to the worry about passing on her horrible migraine. Her own children do not, happily, so far seem to have inherited it, so she remains hopeful the donor-conceived children will not either. Theorising on genetic responsibility suggests people are—or we might add, feel—increasingly obligated to take or refrain from action in order to increase the quality of their lives and the lives of those for whom they are responsible (Boardman 2014, 19; Kaur 2022; Novas and Rose 2000). It seems reasonable to argue that among egg donors the (feeling of) genetic responsibility as a reproductive biocitizen seems to extend not just to their own children but to donor-conceived children as well.

Questioning the bioethics of genetic screening and selecting donors

While the donors worry over passing on genetic conditions or ‘bad genes’ they at the same time realise the complexity of passing on conditions. As with inheriting characteristics, they talk about how eggs alone do not make a baby or a person, and how recipients fundamentally determine the future health of the child by providing sperm, the epigenetic womb environment and/or the family environment where children grow up in (cf. Nordqvist and Gilman 2022), as here:

But then again, the boundaries of diagnoses are vague, and they depend more on what kind of environment an individual flourishes in. And what kind of



things the environment requires and demands from the individual and things like that. (Donor 4)

In our interview data we found a couple of donors who also directly questioned the selection of donors on medical grounds. Donors rarely questioned health criteria altogether. In fact, everybody seemed to think ‘severe’ genetic conditions should be weeded out. Instead, they noted, for example, the curious nature of the third-party reproductive arrangement where genetic conditions are *routinely* screened and selection of donors is made on that basis, like this egg donor:

Well, I do wish that Finns would be healthy as there are these public health problems, these endemic diseases that people have, and they affect everything [...] high national costs in healthcare and [disability] benefits [...] but I could never think that... I have a twenty-year long relationship with my spouse. I am not looking for a [new] man, but I can’t imagine my daughters asking their dates, like, on the first date about “the inheritable diseases you/your family have [laughs] to decide if we can go steady. Like my mum says we cannot if [you do]” [laughs]. (Donor 13)

The donor here agrees that screening and selection generally are a good thing on the national public health level but also notes the comical bizarreness of deploying such biopolitics in procreation in a modern world where the cultural norm is that (nuclear and heteronormative) family formation takes place privately in couples brought together and maintained by romantic love and monogamy (e.g. DePaulo and Morris 2005). Juxtaposing third-party reproduction with the normative heterosexual mode of reproduction points, in our view, to social awkwardness around associating routine screening and selection with eugenic control of reproduction more widely. After all, what is eugenics by definition if not an attempt to consistently improve the quality of future generations via selective parentage practices (Dennis and Gallagher, 2001; Kaur 2022; Shakespeare 2013), usually based on ableist ideologies (Dennis and Gallagher 2001).

This becomes even clearer in donor accounts explicitly critiquing the practice of genetic screening and selection, like this one:

I have been thinking about how the screening is done and what it is that they are after. It makes me feel quite uneasy. I mean I think it’s kinda suspicious that it is considered as a purely negative thing if you happen to carry a hereditary disease... and, I don’t know how to put this, but with this it can be ruled out that certain kinds of genes should not be reproduced or something like that. [...] Like my friend once wanted to donate eggs and went to a clinic. Then because she has bad asthma, she was told she cannot donate. That for me was like, what the hell! (Donor 21)

The donor here problematizes genetic screening and selection in gamete donation as a type of ableist population control. Further, she points out the overreach selection has taken in her view: often a fairly manageable condition such as asthma is grounds for refusing candidates at clinics. Here another donor critiques donor selection as reproductive control:



I think let all flowers bloom and support them anyway. Life can be surprising. If we start thinking and choosing that this and that characteristic will not provide a good life for a person [it is not good], those people might make surprisingly good contributions too to their intimate living environment and the larger society too. (Donor 11)

We interpret this remark to indicate approaching selection as a neoliberal ableist method in our society, one that does not recognise a ‘good’ life and participation in community and society for disabled people who might be dependent on some form of support. Selection appears as an antidote to dependency, which neoliberal ideology only ever views as negative (cf. Lemke 2005). This interpretation is in line with the notion that ableism in society works in a way where dependency on other people or services is perceived negatively (Campbell 2001; Kaur 2022, 75). Ableist participation in society means one cannot simultaneously be ‘a burden’ on taxpayers (Marris 2018, p. 59). This donor here resists such a perception and evaluation. Simultaneously, she enacts donor-reproductive citizens who qualify and belong even with ‘faulty’ genomes.

Discussion and conclusion

In this article, we have explored how third-party reproductive citizenship is enacted in Finnish egg donors’ accounts through discussion of donor virtues, responsibilities, and rights (or lack thereof). This involves making genetic resemblance between donors and donor offspring (in)significant. Our study confirms earlier research results (Nordqvist and Gilman 2022) where the existing framework of openness utilising an identity-release system introduces competing moral obligations for donors as fit third-party reproductive citizens. To meet the first moral imperative, to respect the exclusive character of intended parenthood, the donors downplay the significance of genetic resemblance and connection.

The cultural and policy shift to openness suggests that knowing one’s origins is essential for identity building and well-being, thus the second moral imperative for donors is to be available for the donor-conceived people. Here the significance of resemblance and even kin is acknowledged, which comes with a responsibility to be available for the donor-conceived children. The donor virtue of respecting the boundaries of recipient families is maintained, however, by letting the donor offspring lead the process of building connections and choosing whether to make genetics significant or not. What policy and regulations do not recognise is the messy and complicated nature of the reality of genetic connectedness. Donor-conceived person may be significant to many members of the family of the donor and not just the donor. Further, genetic resemblance can be to the donor’s family members and not just the donor, and the donor must engage in affective work to manage that all. This might involve, e.g. managing their own kids’ concerns about significance of resemblance like in our data (cf. Nordqvist and Gilman 2022).

Genetic resemblance mostly matters for donors in the context of medical issues, involving potentially passing down illness to the offspring. This causes anxiety in



donors, carrying the prospect of not being considered healthy and fit enough for acceptance onto donation programmes in the first place. A ‘good’ egg donor does not carry genetic defects, as that would mean handing over faulty gift products. Imagining donation as a gift or a commercial exchange is a way of acknowledging the significance of genetic resemblance while avoiding parental responsibilities or rights. The non-payment of donors in the Finnish context further allows donation to be imagined within the framework of a civic gift relationship, rather than as reproductive employment or paid labour, which would likely be possible in more commercial settings.

The prospect of failing to be able to give a gift and helping intended parents like good reproductive third-party citizens do—or giving a bad gift because of genetic health conditions—results in anxiety and fears of inadequacy or being responsible for future genetic impairments (in donor children). Like for prospective parents, having a genetic defect is almost a “sin” (cf. Cederström and Spicer 2014; Kaur 2022). (Genetic) screening applies and reproduces moral orders (Ettorre 2005). In our case, ‘good’ third-party reproductive citizens must not only care for their own and their children’s health but also for the implications of their genome for someone else’s family satisfaction and well-being well into the future. Being denied access to third-party reproductive arrangements appears as being denied access to a certain type of reproductive citizenship and the affective altruistic benefits it affords. It feels bad to be labelled as disable(d) (from donating), as someone whose reproductive behaviour needs to be restricted in this way.

Might we say that screening and selection of donors is creating a form of reproductive vulnerability (Riggs and Due 2013) where candidate donors’ perceptions of themselves as good reproductive citizens is compromised? This is obviously more the case for candidates rejected through multiple various kinds of screening, who did not form part of our study. We suggest that rejected candidates should be studied from the perspective of reproductive citizenship and more widely. The candidates who are eventually accepted onto the donor programmes have their citizenship restored and get away with just a scare.

The vulnerability of reproductive tissue donors, especially surrogates and egg donors, has been discussed extensively but mostly in the sense of commodification of women’s bodies and inequalities in terms of outcomes and choices between the privileged and the disadvantaged, leading to the potential for exploitation (Cooper and Waldby, 2014; Palattiyil et al 2010; Riggs and Due 2013; Rotabi and Bromfield 2012). We argue that in addition to this it is possible and important to consider donor vulnerability in the face of the mode of reproduction norm against which other modes are evaluated as making fit or unfit citizens.

In the dominant cultural understandings, that norm is heterosexuality. Infertile people’s capacities as reproductive citizens can be seen as generally diminished through failing to procreate in such a ‘natural(ised)’ way. Today, however, with the increasing use and normalisation of assisted reproduction, it seems safe to say that the approximation of assisted reproduction to a heterosexual norm is not huge, given that in law and clinical practice assisted reproduction has been designed for heterosexual couples and to mimic reproduction through (hetero)sex (Homanen 2021; Mamo 2010; Thompson 2005). While Riggs and Due’s research is focused on (gay)



intended parents, we suggest that in a similar vein with the advent of third-party reproductive arrangements and emergent new reproductive citizens, (candidate) donors may be considered as suffering from vulnerability through being considered unable to *assist* in (assisted) reproduction.

Our research shows that the norms of donor-reproductive citizenship are also problematized by few of the donors. For some donors, their donation simultaneously fulfils intended parents' reproductive desires to make kin as well as their *own*, while not in a nuclear family constellation. However, none of our study's donors are genetic determinists either. They know our genomes consist of both maternal and paternal sets of chromosomes, and how diseases generate is not simply our genes 'grown up'. Genetic screening and selection are also sometimes juxtaposed with eugenic control of reproduction and a neoliberal policy blind to any good (civic) life beyond individuals who are fully responsible and in control of their own biology, health and well-being (see Kaur 2022; Lemke 2005).

Is it possible to imagine an alternative moral framework for donation where donors might not be made responsible for their reproductive health and genome and where moral tensions could be reduced? The roles implied by such a framework certainly will not be analogous to existing relationship terminology but part of 'queer' family relationships in which procreation is a complex process, involving a compound of (genetic) actors and actions. One of our donors offers an insight into an alternative way of sense making by talking about being *an oddity in the family tree*—not a mother or aunt of any kind, but in an alternative family relationship. Perhaps by thinking about donation and parenthood through oddities in families, new moral perspectives for being a good and able donor and a reproductive citizen might emerge?

Funding Open Access funding provided by University of Helsinki (including Helsinki University Central Hospital). The work was supported by Kone Foundation, 202012311, Ronja Tammi, Academy of Finland, 321711, Riikka Homanen.

Declarations

Conflict of interest We have no competing interests in the research detailed in the manuscript.

Ethical approval We confirm that the manuscript is comprised of original material that is not under review elsewhere, and that the study on which the research is based has been subject to appropriate ethical review by Tampere University.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.



References

- Act on Assisted Fertility Treatments. Act 1237/2006, 22.12.2006, Helsinki.
- Almeling, R. 2011. *Sex cells: The medical market for eggs and sperm*. Oakland: University of California Press.
- Amor, D.J., A. Kerr, N. Somanathan, A. McEwen, M. Tome, J. Hodgson, and S. Lewis. 2018. Attitudes of sperm, egg and embryo donors and recipients towards genetic information and screening of donors. *Reproductive Health* 15 (26): 1–10.
- Andersson, M. 2016. The risk of relatedness: Governing kinship in Swedish transnational adoption policy. In *Critical kinship studies*, ed. C. Kroløkke, L. Myong, S.W. Adrian, and T. Tjørnhøj-Thomsen, 203–220. London: Rowman and Littlefield International.
- Blyth, E., and L. Frith. 2015. Access to genetic and biographical history in donor conception: An analysis of recent trends and future possibilities. In *Revisiting the regulation of human fertilisation and embryology*, ed. K. Horsey, 136–152. London: Routledge.
- Boardman, F. 2014. The expressivist objection to prenatal testing: The experiences of families living with genetic disease. *Social Science & Medicine* 107: 18–25.
- Briggs, L. 2017. *How all politics became reproductive politics: from welfare reform to foreclosure to trump*. Oakland: University of California Press.
- Campbell, F.K. 2001. ‘Disability’s’ date with ontology and the ableist body of the law. *Griffith Law Review* 10 (1): 42–62.
- Cattapan, A. (2015) Controlling conception: Citizenship and the governance of assisted reproductive technologies in Canada (1989–2004). PhD thesis in Political Science, York University, Toronto
- Cederström, C., and A. Spicer. 2014. *The wellness syndrome*. Malden: Polity Press.
- Cooper, M., and C. Walby. 2014. *Clinical labor: Tissue donors and research subjects in the global bioeconomy*. Durham: Duke University Press.
- Dennis, C. and Gallagher, R. (eds.) (2001) *The Human Genome*. First Edition. Houndmills, basingstoke, hampshire; Palgrave Macmillan, New York
- DePaulo, B.M., and W.L. Morris. 2005. Singles in society and in science. *Psychological Inquiry* 16 (2–3): 57–83.
- Ehlers, N. 2021. Life’s continuation: Repro-tech, biogenetic affinity, and racial capitalism. *BioSocieties* 16: 514–529.
- Erel, U. 2013. Kurdish migrant mothers in London enacting citizenship. *Citizenship Studies* 17 (8): 970–984.
- Eriksson, P.K. 2017. Putting one’s best foot forward: Finnish prospective adoptive parent’s strategic interaction in statutory pre-adoption services. *Qualitative Social Work* 18 (2): 325–340.
- Ettorre, E. 2005. The sociology of the new genetics: Conceptualising the links between reproduction, gender and bodies. In *Genetic Governance: Health, risk and ethics in a biotech era Abingdon*, ed. R. Bunton and A. Petersen, 107–120. New York: Routledge.
- Frankfurth, Y. 2020. Navigating secrecy and openness: Germans travelling abroad for egg donation. In *Assistiere reproduktion mit hilfe dritter*, ed. K. Beler, P. Thorn, and C. Wiesemann, 230–242. Berlin: Springer.
- Franklin, S. 2001. Biologization revisited: Kinship theory in the context of the new biologies. In *Relative values: Reconfiguring kinship studies*, ed. Sarah Franklin and Susan McKinnon, 302–325. Durham: Duke University Press.
- Franklin, S. 2011. Not a flat world: The future of cross-border reproductive care. *Reproductive Biomedicine Online* 23 (7): 814–816.
- Franklin, S., and C. Roberts. 2006. *Born and made: An ethnography of preimplantation genetic diagnosis*. Princeton: Princeton University Press.
- Freeman, T., S. Graham, F. Ebtehaj, and M. Richards. 2014. *Relatedness in assisted reproduction: Families, origins and identities*. Cambridge: Cambridge University Press.
- Gibson, H. 2022. Surrogacy and the informal rulebook for making kin through assisted reproduction in Aotearoa New Zealand. In *Reproductive citizenship. Technologies, rights and relationships*, ed. R.M. Shawn, 229–252. Singapore: Palgrave Macmillan.
- Gilman, L. 2020. Tracing pathways of relatedness: How identity-release gamete donors negotiate biological (non-)parenthood. *Families, Relationships and Societies* 9 (2): 235–251.



- Gilman, L., and P. Nordqvist. 2018. Organizing openness: How UK policy defines the significance of information and information sharing about gamete donation. *International Journal of Law, Policy and the Family* 32 (3): 316–333.
- Golombok, S. 2015. *Modern families: Parents and children in new family forms*. Cambridge: Cambridge University Press.
- Government Bill (2006). *Hallituksen esitys Eduskunnalle laeiksi hedelmöityshoista ja isyysslain muuttamisesta* [The government's proposal to the Parliament for laws on fertilisation treatments and amending the paternity law] Bill 3/2006, Helsinki.
- Grand Committee (2006). *Hallituksen esitys laeiksi hedelmöityshoista ja isyysslain muuttamisesta* [The government's proposal for laws on fertilization treatments and amending the paternity law] Grand Committee report 1/2006, Helsinki.
- Griffiths, D. 2016. The (re)production of the genetically related body in law, technology and culture: Mitochondria replacement therapy. *Health Care Analysis* 24 (3): 196–209.
- Hammond, K. 2024. The plurality of norms that factor into Canadians' decisions to engage in transnational egg transactions. *Legal Pluralism and Critical Social Analysis*. <https://doi.org/10.1080/27706869.2024.2375115>.
- Herbrand, C., and N. Hudson. 2015. Information sharing in donor conception: Comparing regulations, ethics and cultural practices in the UK and Belgium. *Journal of Medical Law and Ethics* 3 (3): 175–192.
- Homanen, R. 2018. Reproducing whiteness and enacting kin in the Nordic context of transnational egg donation: Matching donors with cross-border traveller recipients in Finland. *Social Science & Medicine* 203: 28–34.
- Homanen, R. 2021. Creatively becoming a family in the fertility clinic? Matching donors with non-heterosexual and single recipients in commercial care. In *Creative Families: Gender and Technologies of Everyday Life*, eds. J. Mikats, S. Kink-Hampersberger, & L. Oates-Indruchová, 19–41. London & New York: Palgrave Macmillan.
- Homanen, R. (Forthcoming) The gamete donor register as kinship device and technology of belonging: State-organized openness in the Nordic context of transnational egg donation. Revised and resubmitted to *Science, Technology & Human Values*.
- Ingraham, C. 1994. The heterosexual imaginary: Feminist sociology and theories of gender". *Sociological Theory* 12 (2): 203–219.
- Jadva, V., P. Casey, J. Readings, L. Blake, and S. Golombok. 2011. A longitudinal study of recipients' views and experiences of intra-family egg donation. *Human Reproduction* 26 (10): 2777–2782.
- Kaur, A. 2022. *Human germline genome editing as a potential reproductive choice: An exploratory sociological study in the United Kingdom*. Doctoral thesis. Cambridge: University of Cambridge.
- Klotz, M. 2014. *(K)information: Gamete donation and kinship knowledge in Germany and Britain*. Frankfurt: Campus.
- Lafuente-Funes, S. 2020. Shall we stop talking about egg donation? Transference of reproductive capacity in the Spanish bioeconomy. *BioSocieties* 15: 207–225.
- Lemke, T. 2005. Beyond genetic discrimination. Problems and perspectives of a contested notion. *Genomics, Society, and Policy* 1 (3): 22–40.
- Mamo, L. (2010) Fertility Inc.: Consumption and subjectification in lesbian reproductive practices. In: A. E. Clarke., J. K. Shim, L. Mamo, J. R. Fosket and J. R. Fishman (eds.) *Biomedicalization: Technoscience, health, and illness in the U.S.* Durham: Duke University Press, pp. 173–196
- Marris, C. 2018. Introduction to Part 2: Genomic technologies in the bioeconomy. In *Routledge handbook of genomics, health and society*, 2nd ed., ed. S. Gibbon, B. Prainsack, S. Hilgartner, and J. Lamoreaux, 57–62. Abingdon: Routledge Milton Park.
- Mazur, A.G. 2002. *Theorizing feminist policy*. New York: Oxford University Press.
- Meskus, M. (2009) *Elämän tiede. Tutkimus lääketieteellisestä teknologiasta, vanhemmuudesta ja perimän hallinnasta* [Science of life: A study on medical technology, parenthood and the government of heredity]. Tampere: Vastapaino.
- Mohr, S., and J.R. Herrmann. 2022. The politics of Danish IVF: Reproducing the nation by making parents through selective reproductive technologies. *BioSocieties* 17 (2): 297–319.
- Myong, L. 2016. I never knew: Adoptee remigration to South Korea. In *Critical kinship studies*, ed. C. Kroløkke, L. Myong, S.W. Adrian, and T. Tjørnhøj-Thomsen, 271–288. London: Rowman and Littlefield International.
- Nahman, M. 2013. *Extractions: An ethnography of reproductive tourism*. London: Palgrave MacMillan.



- Namberger, V. 2017. The South African economy of egg donation: Looking at the bioeconomic side of normalization. In *Assisted reproduction across borders: Feminist perspectives on normalizations, disruptions and transmissions*, ed. M. Lie and N. Lykke, 72–84. New York: Routledge.
- Nordqvist, P. 2017. Genetic thinking and everyday living: On family practices and family imaginaries. *The Sociological Review* 65 (4): 865–881.
- Nordqvist, P., and L. Gilman. 2022. *Donors: Curious connections in donor conceptions*. Bingley: Emerald Publishing.
- Novas, C., and N. Rose. 2000. Genetic risk and the birth of the somatic individual. *Economy and Society* 29 (4): 485–513.
- O'Connor, J.S., A.S. Orloff, and S. Shaver. 1999. *States, markets, families: Gender, liberalism and social policy in Australia, Canada, Great Britain and the United States*. New York: Cambridge University Press.
- Oikonen, V. 2017. Temporality and belonging as transdisciplinary phenomena: Strategic encounters between queer theory and population genetic technologies. *Catalyst: Feminism Theory Technoscience* 3 (1): 1–25.
- Oliver, M. 1983. *Social work with disabled people*. Macmillan. London: Macmillan Education.
- Palattiyil, G., E. Blyth, D. Sidhva, and G. Balakrishnan. 2010. Globalization and cross-border reproductive services: Ethical implications of surrogacy in India for social work. *International Social Work* 53 (5): 686–700.
- Pavlovic, S., M. Ugrin, S. Micic, V. Gasic, J. Dimitrijevic, and U. Barteczko. 2018. Using genetics for enhancement (liberal eugenics). In *Clinical ethics at the crossroads of genetic and reproductive technologies*, ed. S. Hostiuc, 335–365. San Diego: Academic Press.
- Rapp, R. 2000. *Testing women, Testing the fetus: The social impact of amniocentesis in America*. New York: Routledge.
- Riggs, D.W., and C. Due. 2013. Representations of reproductive citizenship and vulnerability in media reports of offshore surrogacy. *Citizenship Studies* 17 (8): 956–969.
- Rose, N., and C. Novas. 2005. Biological citizenship. In *Global assemblages: Technology, politics, and ethics as anthropological problems*, ed. A. Ong and S.J. Collier, 439–463. New Jersey: Blackwell.
- Roseneil, S., I. Crowhurst, A.S. Santos, and M. Stoilova. 2013. Reproduction and citizenship/reproducing citizens: Editorial introduction. *Citizenship Studies* 17 (8): 901–911.
- Rotabi, K., and N. Bromfield. 2012. The decline of intercountry adoptions and new practices of global surrogacy: Global exploitation and human rights concerns. *Affilia: Journal of Women and Social Work* 27 (2): 129–141.
- Rothman, B.K. 1986. *The tentative pregnancy: Prenatal diagnosis and the future of motherhood*. New York: Penguin Books.
- Shakespeare, T. 2013. *Disability rights and wrongs revisited*, 2nd ed. New York: Routledge.
- Shaw, R.M. 2022. Introduction: Reproductive citizenship and meaning of infertility. In *Reproductive citizenship. Technologies. rights and relationships*, ed. R.M. Shaw. Singapore: Palgrave Macmillan.
- Siermann, M., M. Visser, A. Schrijvers, M. Mochtar, and T. Gerrits. 2022. “Doing” kinship: Heterosexual parents’ experiences of non-genetic parenthood through donor conception. *Reproductive Biomedicine Online* 46 (1): 210–218.
- Skirton, H., C. Cordier, C. Ingvaldstad, N. Tavis, and C. Benjamin. 2015. The role of the genetic counsellor: A systematic review of research evidence. *European Journal of Human Genetics* 23 (4): 452–458.
- Spar, D. 2006. *The baby business: How money, science, and politics drive the commerce of conception*. Boston: Harvard Business School Press.
- Strathern, M. 1999. *Property, substance and effect: Anthropological essays on persons and things*. London: Athlone Press.
- Surtees, N. 2022. Constructing gay fatherhood in known donor-lesbian reproduction: “We get to live that life, we get to be parents.” In *Reproductive citizenship technologies rights and relationships*, ed. R.M. Shaw, 253–278. Singapore: Palgrave Macmillan.
- Thompson, C. 2005. *Making parents: The ontological choreography of reproductive technologies*. Cambridge: MIT Press.
- Trail, R., and S. Goedeke. 2022. The experience of single mothers by choice making early contact with open-identity or private sperm donors and/or donor sibling families in New Zealand. In



- Reproductive citizenship. Technologies, rights and relationships*, ed. R.M. Shaw, 179–202. Singapore: Palgrave Macmillan.
- Turner, B.S. 2001. The erosion of citizenship. *The British Journal of Sociology* 52 (2): 189–209.
- Turner, B.S. 2008. Citizenship, reproduction and the state: International marriage and human rights. *Citizenship Studies* 12 (1): 45–54.
- Wahlberg, A., and T.N. Gammeltoft, eds. 2017. *Selective reproduction in the 21st century*. Cham: Palgrave Macmillan.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Ronja Tammi is a Doctoral Researcher in Sociology at University of Helsinki. In her doctoral research, she studies ethical practices of tissue donation in Finland, analysing egg, blood and corneal donation and tissue management practices in parallel.

Riikka Homanen is Senior Lecturer in the Faculty of Social Sciences at the University of Lapland. Her work explores bioethics and biopolitics of sociotechnological practices of reproduction and its transnational markets.

