Not of women born

Sociotechnical imaginaries of gender and kinship in the regulation of transmasculine reproductive citizenship in Denmark

by Anna Sofie Bach

Abstract

In 2014, Denmark abolished the castration requirement that had been in place since the 1950s in order to obtain legal gender reassignment. As a self-declaration model was introduced, the law was amended to enable everyone with a uterus to retain access to pregnancy care and assisted reproduction. Combining Science and Technology Studies with critical transgender scholarship, this paper explores how the legal reforms, which sought to separate legal gender status from the healthcare system, have shaped the emergence of reproductive transmasculinities and the institutionalization of reproductive citizenship for trans men. Drawing on the concept of sociotechnical imaginaries (Jasanoff, 2015), I discuss how specific understandings of coherence between bodies, gender and parenthood organize and restrict the reproductive practices of trans men. For example, men who give birth are still registered as mothers. Through the framework of biomedicalization (Clarke et al., 2010), I extend my discussion of reproductive autonomy to fertility preservation access. I discuss why, in Denmark, sperm can be frozen in relation to gender- affirmative treatment, but eggs cannot, and in doing so I highlight how this disparity is not only shaped by normative practices of risk prediction, but also by the political opposition to surrogacy in Denmark.

KEYWORDS: transgender, reproduction, reproductive citizenship, fertility preservation, sociotechnical imaginaries, biomedicalization

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Introduction

> *Castration is the only model that is irreversible and which certainly prevents legal men from becoming biological mothers and the other way around.*
>
> (The Ministry of Justice 2014, 52)

In 2014, Denmark abolished the castration requirement that had been in place since the 1950s in order to obtain legal gender reassignment (Holm, 2017). In fact, the removal of the castration requirement was part of a more significant legal reform of the Central Personal Register (Bill no. L182 2013/2014) through which Denmark was the first country in the world to grant access to legal gender reassignment based on a self-definition model to people above the age of 18 (Holm, 2017; Dietz 2018). Importantly, the abolition of the castration requirement was followed by an amendment of the healthcare laws so that people who legally transition retain access to reproductive healthcare services, such as abortion, pregnancy care and, not least, assisted reproduction (Bill no. L189 2013/2014). In combination, these reforms not only granted transgender individuals the right to bodily integrity, the legal amendments also provided a new degree of reproductive autonomy (Herrmann, 2012).

Both nationally and internationally, the Danish reforms have been celebrated for being progressive and inclusive. However, as highlighted by Dietz (2018), the political goal of separating legal gender status from the healthcare system complicates the embodiment of transgender identities. While depathologization and destigmatization are certainly desirable, the close attention to *legal* gender status that shaped the 2014 reforms invisibilizes the need for the *medical* body modifications that many trans people have (Dietz, 2018; Nord, 2018). Thus, critical voices have highlighted how Denmark's adoption of the self-declaration model correlated with a centralization of trans-related healthcare at the Sexological Clinic in Copenhagen, which has monopolized and restricted access to hormones and surgeries (e.g. Amnesty International 2016, Dietz 2018; Nord 2018; Raun 2016). Similarly, as I will discuss in this paper, although trans men have legal access to reproductive healthcare services, their reproductive citizenship is greatly affected by the ways in which the self-declaration model, as it was adopted in Denmark, disconnects legal gender status from the (reproductive) body.

In this paper, I discuss the materialization of reproductive trans masculinities and investigate how transmasculine fertility and reproduction have been debated and conceptualized in relation to the Danish policy reforms. As also highlighted in the introductory quote from the ministerial report that laid the foundation for the reforms, transgender fertility calls for a reorganization of the gendered meanings of reproduction and parenthood. Simultaneously, the quote shows how the normative categorical order of reproduction is disturbed by pregnancy in men and in ways that cause socio-political controversy, as highlighted in the parliamentary debates on the reforms.

Drawing on a framework that combines critical transgender scholarship with feminist Science and Technology Studies (STS), I demonstrate how the reproductive bodies of trans men are shaped and regulated through complex entanglements of law, biomedical knowledge production, technoscientific achievements and social norms. Applying the notion of sociotechnical imaginaries (Jasanoff 2015), I am particularly concerned with how medico-legal conceptualizations of gender and kinship render reproductive bodies and parental situations (un)intelligible (Butler, 2004) and the effects of these processes of meaning-making on the reproductive lives of trans men. Based on an analysis of 'the paper trail' left behind by the policy reforms since 2014, including reports, public hearings, parliamentary debates and medical guidelines, I show how the separation of legal

gender and the body allows for the preservation of an idea of 'reproductive sex/gender[1]' that manifests itself not only in transgender parental recognition, but also in fertility preservation practices. Arguably, this gendering of the reproductive body not only complicates the intelligibility of pregnancy in men, it also affects the biomedicalization of transmasculine bodies in terms of whether or not future (in)fertility becomes a focal point (Clarke et al 2010; Kroløkke et al, 2019).

Focusing on reproductive citizenship (Carroll & Kroløkke, 2018), I seek to add to the scholarly discussions on the (de)medicalization of gender non-conforming people by drawing attention to the biomedicalization of transgender bodies and their fertility (see also Linander et al, 2017; Nord, 2018). The analysis not only brings to the fore the limits of the inclusion provided by the political reforms in Denmark, it also highlights the complicated ways in which transgender bodies and identities are simultaneously *de*medicalized and *re*medicalized (Ballard & Elston 2005; Conrad 2007). In particular, this pertains to diagnostic reclassifications and the biomedical incitements to fertility preservation. While much has been gained through the self-declaration model, it is important to address the inconsistency created through the notion of 'reproductive sex/gender', a sociotechnical imaginary that preserves binary, biology-based conceptualizations of coherence between gender, bodies and kinship. This imaginary not only prohibits gender-affirmative parental recognition, it is also likely to coproduce the discomfort experienced by many transgender people in their interaction with reproductive healthcare services (see for instance Tved, 2019; Armuand et al. 2016)

Theoretical perspectives

This paper combines a Science and Technology Studies (STS) framework, drawing on the notions of (bio)medicalization (Clarke et al. 2010; Conrad 2007; Mamo 2007) and sociotechnical imaginaries (Jasanoff 2015) with critical transgender scholarship (Butler 2004; Dietz, 2018; Holm, 2017; Linander et al. 2017; Nord 2018, Stryker & Aizura 2013; Raun 2014; 2016; Stryker 2017). By bringing together these perspectives in a discussion of reproductive citizenship, my aim is to add new perspectives to the growing body of trans scholarship that is preoccupied with demonstrating "how medical, legal, social, and cultural discourses have required bodies to conform to gender norms" (Stryker & Aizura 2013, 1). I critically engage with practices of categorization that entangle law, social norms, biomedical knowledge production and technoscientific advancements, and in doing so my focus is on the processes of meaning-making through which embodied identities and kinship relations become (un)intelligible in the context of the Danish welfare state (Jasanoff, 2015; Butler, 2004).

At the same time, I try to honour the lived experiences of transgender people by adopting a more inclusive understanding of what it means to be transgender than many of the policy documents that I analyze (Raun 2014). In doing so, I draw on the work of Stryker (2017) who uses the term transgender to "refer to people who move away from the gender they were assigned at birth, people who cross over *(trans-)* the boundaries constructed by their culture to define and contain that gender" (p. 1, original italics). However, as emphasized by Stryker, Currah and Moore (2008, 11), this does not suggest that everything else, or perhaps cisgender people in particular, can "be characterized by boundedness and fixity" (see also Raun 2014). Consequently, transgender is not simply about medical or legal transition, while for many people this is of the utmost importance – even a matter of life or death (Dietz 2018). As Stryker highlights (2017, 1), transgender is best characterized by the movement "away from an unchosen starting point, rather than any particular destination or mode of transition".

As a way of thinking through how gender and kinship categories are produced and (re)organized through processes that entangle materiality, meaning and morality, I apply the concept of sociotechnical imaginaries (Jasanoff, 2015) in my analysis of the policy work. Jasanoff states (2015, 4) that sociotechnical imaginaries are "collectively held, institutionally stabilized and publicly

performed visions of desirable futures animated by shared understandings of the social order attainable through, and supportive of, advances in science and technology". Approached through this framework, gender and kinship categories such as 'man' or 'mother' cannot be reduced to representations of 'a natural order', but have to be approached as social products related to the envisioning of "how life ought, or ought not to be lived" (ibid.). Obviously the envisioning of desired futures correlates, as Jasanoff also emphasizes, with the opposite of this, i.e., resistance against the undesirable or expressions of "shared fears of harm" (2015, 5) are equally important elements in terms of (re)articulating awareness of and commitment to a particular order of social life (Jasanoff 2015, 26).

The Danish Central Personal Register (CPR) is a prime example of how legal interpretations of biomedical classification schemes, social gender norms, new registration technologies and political visions of population administration came together in 1968. Institutionalized as the core infrastructure of the welfare state (Sløk-Andersen 2011), the CPR system distributes a personal identification number to all residents in Denmark in which the last digit assigns gender (even = female, odd = male). Binary gender categorization is in this way inescapable in the interaction with the state, and especially around public healthcare, which has been digitalized around this logic in recent decades. For example, it has proven difficult to register pregnancy services to a male CPR number (Erichsen 2018). The fact that the digital platform recognizes this as an error reflects the institutionalization of sociotechnical imaginaries of gender and kinship according to which pregnancy does not occur in men.

Furthermore, inspired by the work of Clarke and colleagues (2003, 2010), I approach the Danish reforms as a complex process through which the depathologization of gender non-conformity, the prevalence of (publicly funded) assisted reproduction and the (bio)medicalization of (in)fertility, through new technoscientific preventive remedies such as cryopreservation, coproduces new approaches to management of reproductive citizenship (Carroll & Kroløkke 2018; Linander et al. 2017; Mamo 2007). Originally, the concept of medicalization captures the extension of medical jurisdiction, authority and practice into increasingly broader areas of human life (Clarke et al. 2003; Conrad 2007). Importantly, this also meant that, from the late 19th century onwards, an expanding biomedical community became especially closely involved in the regulation of gender and sexuality. Through the process of medicalization, gender non-conformity moved from the realms of religiously criminalized sinfulness towards the realms of pathology and illness (Conrad 2007; Dresher et al. 2012, Holm, 2017; Stryker 2017).[2]

Medicalization involves a specific interest in providing a treatment, potentially even a 'cure' (Ballard & Elston 2005; Conrad 2007; Clarke et al 2010). Whereas homosexuality in today's Western mainstream biomedical discourse has been (re)positioned as a sort of 'natural' variation in sexual orientation (which is not equivalent to destigmatization, Conrad 2007), the need for medical transition, accessed through synthetic hormones and surgery, keeps some transgender people in a complex relationship with the biomedical regime and its logics of disease and treatment (Dietz 2018; Linander et al. 2017; Mamo 2007; Stryker 2017). However, in the ICD-11, the diagnostic manual of WHO from 2018, the diagnosis of 'transsexualism' has been replaced by 'gender incongruence', repositioned in a new chapter on sexual health conditions (WHO 2018). In anticipation of this international trend of depathologization, a similar reconceptualization took place in Denmark in 2017 emphasizing that 'treatment' can take place without the presence of illness, as in the case of pregnancy, which is not classified as a disease despite the existence of a diagnostic code.

Similarly, involuntary childlessness has been medicalized (Conrad 2007; Mamo 2007). As the biomedical regime gained more insights into the physiological aspects of reproduction, 'infertility' emerged as a medical condition to be treated through biomedical interventions such as IVF. With increasing attention on the psycho-social consequences of involuntary childlessness as well as on new technoscientific possibilities, the prevention

of infertility is increasingly sought through the cryopreservation of gametes and reproductive tissues. The concept of *bio*medicalization, as coined by Clarke et al. (2003), captures exactly this shift in perspectives from reactive treatment to prophylactic preventive care that seeks to optimize health and well-being rather than cure disease. In this sense, the (bio)medicalization of infertility informs contemporary debates on reproduction and reproductive autonomy. In the Danish context, the biopolitical project of population control is allegedly shifting from preventing (unwanted) pregnancies to increasingly making sure that procreation will take place.

In his notion of biological citizenship, Rose (2007, 131) captures this change and underlines how, in the late 20th century, citizenship has come to include the right to health and well-being. In legal theorizing, the autonomy to make reproductive choices is seen as vital to human dignity (Herrmann 2012). However, there is not a uniform understanding of how reproductive autonomy is realized in a rights-based perspective. As a negative right, autonomy is understood as the right to freedom from state intervention. Others understand reproductive autonomy as constituted through the positive right to medically assisted reproduction (ibid).

Extending this discussion, in their work on egg freezing, Carroll & Kroløkke (2018) note how fertility preservation constitutes a new way of managing what they see as reproductive citizenship. While Carroll and Kroløkke's work centres on elective freezing among healthy women, and thus on responsible management on the individual level, the establishment of so-called medical freezing programs, e.g. for cancer patients, can be understood as a similar, yet collectivized and institutionalized, desire to uphold the reproductive citizenship of patients in treatment who can be restored as (re)productive citizens (Bach & Kroløkke 2019).

In combination, these perspectives allow me to explore and critically discuss the ways in which materiality, meaning and morality entangle in the policy reforms that have reorganized the reproductive citizenship of transgender people in Denmark.

Methods and data

Empirically, this paper examines 'the paper trail' left behind by the policy reforms. Law, Jasanoff argues (2015, 26), "is an especially fruitful site in which to examine imaginaries in practice". In this sense, policy documents can be mined for insights into framings of desirable futures or, as Jasanoff also points out, for the "monsters" that policy seeks to eliminate and avoid (Jasanoff 2015, 27). Thus, policy reforms are sites of collectivized meaning-making and central places to inquire into the negotiation and institutionalization of sociotechnical imaginaries. As the 2014 reforms concern a central social infrastructure – the CPR number – the deliberations on the changes provide insights into how actors and institutions respond when confronted with an attempt to reorganize the social order.

My data analysis is informed by situational analysis as developed by Clarke, Friese & Washburn (2018). Inspired by grounded theory, situational analysis works with visual mapping as a way of organizing and structuring complex and rich empirical materials. Combining initial explorative processes with the steps involved in organizing, connecting and situating arguments and agents across both time and political spheres, this method promotes the comparative approach ideal for the identification of sociotechnical imaginaries (Jasanoff, 2015). Although parliamentary debates on legal gender status took place prior to 2014, I chosen a 2014 working group report from the Ministry of Justice as my empirical point of departure since the report is the foundation for bills L182 and L189. Moreover, the report comments explicitly on the (il)legitimacy of the castration requirement. From this point in time, I tracked relevant documents relating to the reform, including the preparatory comments, parliamentary readings, public hearing responses and the assessments from the parliamentary committees that, in the Danish system, debate bills and potential amendments after the first reading in the Parliament. I also included the medical guidelines that came out in 2014 and the updated versions from 2017, following the reorganization of trans-related healthcare outside of

psychiatry, as well as the public hearings on the guidelines and patient handouts. Parliamentary debates were found through the website of the Danish Parliament. The other documents were available through www.retsinformation.dk. Patient handouts were downloaded from the website of the Center for Gender Identity in Copenhagen.

Including public hearings in the material proved especially relevant in order not only to identify political actors, but also to provide access to negotiation of meaning across political spheres. Parliamentarians may decide the law, but their arguments and views do not evolve in isolation. Including counter ideas/protests is a way of analytically embracing the complexity of coproduction as well as exploring the legitimacy of the imaginaries identified (Clarke et al. 2010,14).

Abolishing the castration requirement

The abolition of the castration requirement in Denmark is part of an international process through which practices of forced sterilisation and castration[3] have become increasingly illegitimate, as also reflected in the 2014 working group report from the Ministry of Justice. Whereas other practices of forced sterilization were ended in Denmark in the 1960s (Koch 2014), the castration requirement for legal gender reassignment was preserved through the introduction of the CPR number in 1968. As documented by Holm (2017), the castration requirement was institutionalized in the 1950s. It was part of the establishment of a set of guidelines to organize medico-legal practices around the increasing number of people seeking both legal and medical transition following the famous, and heavily mediatized, transition of US citizen Christine Jorgensen in Copenhagen in 1951-52 (Holm 2017). According to Holm's (2017) historical research, the Ministry of Justice was reluctant. However, the Medico-Legal Council, an advisory body to the Ministry, convinced the Ministry that castration was in the interest of the patients. In this logic, 'genuine transvestites', a new biomedical conceptualisation, who were 'born in the wrong body' would wish to avail themselves of the new technoscientific options for bodily modifications, including gender reassignment surgery. The concept of 'informed consent' was in this way built into the Danish medico-legal legitimization of transgender castration practices. Both the Medico-Legal Council and the Ministry of Justice were, however, also concerned about the reproductive risks involved with gender non-conforming people who legally transition (Holm 2017). A case of a man who applied for abortion in 1953 after having been granted legal gender reassignment a few years before on the basis of an intersex condition, convinced the Ministry that a castration requirement would prohibit this kind of conceptual and social disorder (Holm 2017).

While a similar concern was expressed in 2014, as evident in the introductory quote, the working group established that the Danish castration requirement was likely to violate Article 8 of the European Human Rights Convention on the right to respect for privacy and family life (The Ministry of Justice 2014, 77). Reviewing preceding cases, the working group pointed to a changing understanding of forced castration with regard to what coercion entails. In particular, they highlighted a ruling from 2012 by the Swedish Legal Advisor to the Government (Kammerrätten), which found that if an operation is a requirement in order to obtain access to a benefit or a right, then it can be regarded as a "coerced bodily operation" (The Ministry of Justice 2014, 30). In Sweden, this ruling led to the abolition of the castration requirement in 2013. On the basis of this assessment, the Ministry of Justice proposes three new models for legal gender reassignment, none of which require castration, although two of them require respectively a doctor's certificate, from a GP for example, or the diagnosis of 'transsexuality' from the Sexological Clinic. The centre-left government, which included transgender rights on its political platform agenda, proposed the self-declaration model (L182). Important in relation to the establishment of reproductive citizenship are the accompanying amendments, positioned as consequential adjustments, of, respectively, the Act on Health and the Law of Assisted Reproduction. Among other things, this bill (L189) preserves access to

reproductive services for everyone with a uterus and ovaries.

When bill L182 was debated in Parliament, several politicians across the political spectrum positioned the existing legal apparatus as "old fashioned" in several aspects, the castration requirement being one. This includes the spokesperson from the party Left (which in Denmark is politically placed right of centre), who nevertheless argued for an assessment model. Echoing the contemporary, biomedicalizing preoccupation with risk and prevention (Clarke et al. 2010), the spokesperson finds it appropriate for a doctor not only to screen for 'contraindications', but also to advise on the medical consequences of legal gender reassignment. Specifically, the Left Party is concerned about the fact that trans people will no longer be *automatically* called for medical screening programs, e.g. Pap smear testing, due to a combination of the technical functionality of the CPR system and, according to the Minister of Health, the attempt to acknowledge legal gender status (screening is still provided on request). While this can be seen as a call to *re*medicalize transgender bodies, the political debate more broadly involves a depathologization of transgender people. Although the proposal does not concern the diagnostic codes, which were not changed until 2017, most debaters stress that they do not regard transgender as an illness. This includes the opponents of the bill who, nevertheless, find it bizarre to attempt to disconnect the gender marker of the personal identification number from what they see as the "reality" of biology, that is, from the biomedical classification of genital differences. Yet, as also described by Dietz (2018), as it was adopted in Denmark, the self-declaration model was founded on a separation of legal gender status and the healthcare system. This is emphasized, for example, in the speech by Stine Brix from the left-wing party Enhedslisten, who stresses that "Gender identity is a private matter. It is not a concern of the healthcare authorities" (L182, 18:27).

Arguably co-produced by the lobbying of trans activists and LGBTQ organizations that have long opposed deterministic biological models of gender, the notion of gender identity is pivotal to the policy reform. Through the notion of gender identity, the bill configures the transgender individual as "a person who experiences oneself as belonging to the opposite sex/gender" (L182). Furthermore, in the commented bill, it is stated that the amendment of the law will improve the lives of people "who experience a discrepancy between their biological sex/gender and the gender they feel like" (ibid.) Notably, these formulations counter the idea that gender identity derives directly from biology. However, not only does this configuration of transgender rest on a binary understanding of two opposite identity positions, as also remarked by the NGO Sex & Society in the public hearing[4], it also (re)articulates an imaginary of bodies in which they are always already 'naturally' gendered. As applied by the parliamentarians, the notion of gender as identity does not involve a degendering of the body. Rather, as the reform separates legal gender status from the healthcare system, it produces a body-mind dualism that has come to have a significant impact on the embodiment of transgender reproductive citizenship (see also hartline 2018).

Biological (reproductive) sex/gender: legal men and biological mothers

In contrast to L182, which concerned a *negative* right to the freedom from state interference in reproductive autonomy, L189 concerns the *positive* right to medically assisted reproduction, both in the shape of pregnancy care and reproductive technologies (Herrmann 2012). Consequently, the conceptualization of the reproductive body plays an important role in this debate.

Linguistically there are important differences in how the acts are amended. Arguably the Act on Health is gender-neutralized as the word 'the pregnant' or 'person' replaces 'the (pregnant) woman' (L189). Instead of revising the text, in the Law on Assisted Reproduction a new clause is added that specifies what the law means by 'man' and 'woman'. According to the hearing response of the Danish Council on Ethics, where some of the members problematized the lack of recognition of the legal

reassignment in the phrasing, the first draft of the bill worded these clauses as "woman is in this law understood as a person with *female reproductive organs*" and vice versa (Hearing responses L189, my italics). In the final version, the text reads: "This law considers 1) woman: a person with uterus or ovarian tissue, 2) man: a person with at least one testicle. " (Act 744). While apparently a technical way of providing legal inclusion, the clause contributes to the preservation of the sociotechnical imaginary of gender, destabilized in L182, which correlates the categories of 'woman' and 'uterus' and 'man' and 'testicle(s)'.

"Wouldn't it make sense to decide if one follows the biological or the legal sex/gender when it comes to healthcare?" Charlotte Dyremose from the Conservative Party asked during the first reading of L189 after the Minister of Health had evoked the notion of "a biological woman" in his recap of those for whom the consequential amendments will secure "continued eligibility for services related to pregnancy care, abortion, fetus reduction and treatment with reproductive technologies." (L189, 20:14-20:18). The inconsistency of the connection between gender categories and reproductive capacities is further highlighted in the government's refusal to amend the Act on determination of parentage through which legal parental categorization is regulated in Denmark. Thus, the imaginary of gender is intertwined with the sociotechnical production of legal kinship.

Based on Roman law principles, the Act on determination of parentage states that motherhood is established through birth and that the legal partner of the mother is always the father (Dam 2018). Since 2013, another woman can be equally recognized as a legal co-mother if a sperm donor is used (ibid). As early as in the working group report from 2014, the discrepancy between the imaginary of reproductive sex/gender and the self-declaration model can be seen. Some of the members of The Danish Council on Ethics are also of the view that this discrepancy lacks respect for the legal gender reassignment as provided through L182. Yet the council disagrees on the matter and other members are aligned with the Ministry of Children and Equality, under whose jurisdiction the act lies, and which, in a statement to the Ministry of Health and Prevention, declares that:

> *With respect to the Act on determination of parentage, you have the sex/gender you use to procreate, which is why it will not cause any doubt about interpretation that one or both parents at the time of conception have another legal sex/gender than their biological sex/gender.* (The Health Committee 2014, 15).

In the statement, the Ministry of Children and Equality further stresses that it does not find that the law prohibits procreation among people who legally transition, nor their legal recognition as parents. Thus, reproductive autonomy is constituted as the negative right to freedom from state prohibition and reproductive citizenship is reduced to a matter of reproductive choice.

Importantly, the commitment to the notion of reproductive sex/gender was challenged in 2016 when a trans man, who legally transitioned following the reform in 2014, applied to become the father of the future child he was having with a friend. Initially, his application was denied and he was to be classified as a 'co-mother'. In 2017, however, the High Court overturned the verdict and granted the man legal recognition as the father (Tved 2017). Although the verdict has destabilized the correlation between reproductive sex/gender and legal parental recognition, pregnancy in men is still informed by the imaginary of reproductive sex/gender, meaning that, in Denmark, men who give birth cannot be recognized as fathers.

Notably, in the debate, the Minster of Health rejects the discussion of parental categorization by positing the matter as belonging to another Ministry. Furthermore, he attests that it would be demanding to rewrite the entire law, a position that is also reflected in the solution to the Law on Assisted Reproduction. The unwillingness to amend the clause is, however, likely to derive from the fact that the principle of mater semper certa est plays an important role in the legal framework implemented in Denmark to prevent surrogacy. A legal complex that not only intertwines the notion

of reproductive sex/gender with normative understandings of (il)legitimate kinship structures, but also comes to affect transgender reproductive citizenship as it shapes the practices of fertility preservation.

Freezing for the (unknown) future

Across the globe fertility preservation, in the form of the cryopreservation of reproductive cells and tissue, is gaining attention as a means of preventing involuntary childlessness, including in relation to gender affirmative treatment (De Sutter 2001; 2016; Kroløkke et al. 2019; WPATH 2011). As an anticipatory practice aimed at preventing the (potential) trauma of future infertility, the advancement of fertility preservation options can be understood as part of the biomedicalization of (in)fertility, initiated with the technologizing of assisted reproduction, as well as contributing to the specific valorization of genetic kinship (Adams et al. 2009; Mamo 2007). In the international guidelines of trans-related healthcare, discussing future fertility is positioned as a central aspect of good medical counselling (WPATH, 2011). As discussed by, for example, de Sutter (2016), the need to discuss fertility is also growing as the people seeking medical transitioning are becoming younger and are therefore less likely to have had children. In several countries, including Denmark, transgender children are also increasingly offered hormone blockers to pause their pubertal development in advance of later so-called cross-hormonal treatment. In the biomedical imaginary, a major side effect concerns the prospect of forming biological/genetic families in the future.

However, fertility preservation was not a central concern in the 2014 policy reform. In a memorandum, the Ministry of Health briefly noted that freezing opportunities already existed within the legal framework (The Health Committee 2014, 4). Accordingly, the medical guidelines that were issued in 2014 stated that *"under the observation of the current law"* referral to the depositing of sperm and eggs exists when *"it is possible to refer these (the eggs) to the same woman at a later point"* (The Danish Health Authorities, 2014). However, in the updated version of the guidelines from 2017, the clause was removed. Testifying to the biomedicalization of (in)fertility, in the public hearing this change was problematized primarily by biomedical professionals, including the new Center for Gender Identity. Nevertheless, according to a patient handout, also updated, sperm preservation is still available free of charge in relation to oestrogen treatment or surgery, while *"There is currently no offer to preserve eggs for later"* (Patient handout 2017; 2018).

In Denmark, as demonstrated by Kroløkke et al. (2019), gamete preservation is regulated by a normative, gendered framework through which sperm has become a highly mobile and commercialized substance, while eggs are restricted, in particular by a 5-year storage rule, but also by a ban on donation, lifted in 2006, and selling. Importantly, in 2012, the law was amended to allow exemptions to the 5-year rule in the case of disease. However, egg freezing has been shaped by an imaginary in which eggs should ideally not leave the body. If they do, then ideally they should return quickly and, preferably, to the same *woman*, as stated in the law. In combination with the ban on medically assisted surrogacy that exists in Danish law, this idea complicates egg freezing in the context of medical transitioning. The restriction of surrogacy obviously limits putting frozen eggs to use, if a transmasculine individual has the uterus removed. While it would technically be possible to use the womb of a partner, as in the case of lesbian 'egg-swapping' (Mamo 2007), Danish doctors consider this practice medically risky if the partner has usable eggs. However, in 2018, a ban on so-called double donation was lifted as long as it was done on 'medical indication', using at least one non-anonymous donor (The Ministry of Health 2017). While donor anonymity would not be a concern, whether transmasculine people are intelligible reproductive subjects who fall within the frame of 'medical indication' remains to be seen and would, currently, require eggs to have been frozen in the private sector. Arguably, the fact that sperm depositing is offered free of charge in relation to oestrogen treatment indicates that, in

this context, fertility preservation is considered medical freezing. In contrast to so-called social freezing, freezing on medical indication is covered by public healthcare. Besides, the presence of a partner with a womb relies on speculative forecasting of the future (Adams et al. 2009) and is, of course, in many cases not available.

Meanwhile, speculative forecasting is an inherent part of fertility preservation where the prediction of the future is key to the production of intelligible candidates for medical freezing (Bach & Kroløkke 2019). In this sense, medical freezing relies on the biomedical prediction of risk and chance (ibid). Importantly, whereas the removal of ovaries and uterus is regarded as an irreversible procedure, testosterone treatment is, at least post-puberty, considered to be a reversible treatment in relation to fertility (changes in e.g. body hair and voice are not reversible if considerable change has happened). This means that reproductive capacity is likely to be regained if testosterone is stopped (De Sutter 2016). In contrast, not only is sperm production believed to be damaged by oestrogen, but also sperm is easier and cheaper to freeze due to technological differences in freezing protocols. This highlights the point made by Thompson (2005), that costs are a main driver in the constitution of citizenship in the reproductive arena.

Due to the 5-year rule, the freezing of unfertilized eggs, also only a robust technology since 2012, is not a particularly widespread practice in Danish public hospitals and in the case of diseases such as cancer, it is increasingly common to freeze ovarian tissue (Bach & Kroløkke 2019; Kroløkke et al. 2019). In contrast to egg freezing, ovary preservation does not require oestrogen stimulation, a process found to be particularly uncomfortable in the context of transmasculinity (Armuand et al. 2017). Easily done in relation to gender-affirmative surgery, ovary freezing is proposed as an ideal remedy for fertility preservation in transmasculine individuals (see, for example, De Sutter 2016). However, effective ways of putting the tissue to use in the context of transmasculine bodies and identities have yet to be developed since it currently involves the restoration of oestrogen production.

As the discussion above highlights, fertility preservation is a matter not only of technological abilities, but also of practices regulated through normative sociotechnical imaginaries institutionalized through law that render certain procreational situations desirable and others illegitimate. While transgender (in)fertility is increasingly biomedicalized, in the Danish context the reproductive citizenship of transmasculine people is constituted and institutionalized in relation to the possession of a uterus in which pregnancy can be established.

Concluding discussion: Reproductive justice beyond the gender binary?

In this paper I have examined the formation of transgender reproductive citizenship in Denmark following the reforms of legal gender reassignment in 2014. I focus specifically on the emergence of new reproductive masculinities and the ways in which pregnancy in men has become regulated after the abolition of the castration requirement that had been in place since the 1950s. I have discussed how transgender reproductive rights are shaped not only by sociotechnical imaginaries of gender and kinship, but also by ambiguous processes of depathologization and biomedicalization (Clarke et al. 2010; Conrad 2007; Linander et al. 2017). In particular, I have highlighted the consequences of how the notion of reproductive sex/gender was preserved in the reorganization of the gendered logic of the Danish CPR system, which assigns all Danish residents an individual, gendered identification number. Despite the disconnection of biology and legal gender, men who give birth become the legal mothers of their children. Moreover, while increasing attention is given to protecting future fertility, in the Danish context access to fertility preservation is shaped through gendered notions as well as by a societal investment in preventing (commercial) surrogacy. These findings re-emphasize how the biomedicalization is not only gendered (Clarke et al. 2010; Linander et al. 2017; Riska 2010), but also that the biomedicalisation of infertility is predominantly institutionalised around cis-gendered logics.

While the reform made everyday life easier, as it provided easy access to legal gender recognition, it still preserved the binary logic of the CPR system in which you can only be 'man' or 'woman', 'father' or 'mother'. In this sense, the reform has not been inclusive to trans people who identify outside of the gender binary (Dietz 2018; hartline 2018, 2019), nor was it particularly inclusive of the non-cisgendered reproductive practice it sought to enable. As the reform concerns people over the age of 18, I have only briefly touched upon the discussion of transgender children, who in ever greater numbers are pursuing trans-related healthcare (Centre for Gender Identity website[5]). With the biomedicalization of (in)fertility and a new-found focus on the reproductive citizenship of the transgender population, their early entrance to medical transition amplifies the debate about fertility preservation options.

While fertility preservation arguably preserves an imaginary of the biological family as desirable and the road to future happiness (Mamo 2007), in a reproductive rights perspective, the Danish healthcare system, which already sustains the reproductive future of other children whose future fertility is compromised by medical treatment, is excluding transgender children from having the same options. In this sense, my analysis points to the stratification of the right to (reproductive) health (Linander et al. 2017). These inequalities call for a renewed focus on the ways in which Danish legislation shape the reproductive citizenship of gender non-conforming people. Furthermore, they highlight the need for more research into the experiences of gender non-conforming people with fertility counselling and fertility services, especially with regard to the diversity among the transgender population and the extent to which they avail themselves of medical transition. Existing research points towards a significant level of discomfort produced in the interaction with healthcare professionals who are inadequately informed on LGBTQ issues (see, for example, Armoud 2018; Tved 2019). Moreover, in order to sustain the reproductive citizenship of transgender people in Denmark, more knowledge is needed about the consequences of gender-affirmative treatment in order to provide people who medically transition with good fertility counselling.

Notes

1 In the Danish language there is no separation of sex and gender. As the word 'køn' holds both meanings, I use sex/gender when translating from Danish or referring to the Danish meaning.

2 'Transsexualism' did not appear as an independent diagnosis until homosexuality was removed from international classifications in the early 1980s. Denmark followed in 1981. (Dresner et al. 2012).

3 In contrast to sterilization, which involves tying or cutting the sperm duct or fallopian tubes, castration entails the removal of testicles or ovaries. This is a more encompassing procedure as it also involves the hormonal production.

4 They suggest instead using the more inclusive "belonging to another gender" (The Health Committee 2014).

5 https://www.rigshospitalet.dk/afdelinger-og-klinikker/julianemarie/center-for-koensidentitet/om-centret/Sider/tal-og-statistikker.aspx

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