



For Whom Does the Clock Tick?¹: Male Repro-Temporality in Fertility Campaigns, Scientific Literature, and Commercial Accounts

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Abstract

Sperm swimming in circles or a lone sperm cell with two heads—male reproductive aging is increasingly equated with poor sperm quality, the prevalence of learning disabilities, and even schizophrenia in offspring. To discuss the construction of a male biological clock, this article asks two questions: how does the notion of a biological clock seek to regulate male reproductive bodies? And how is male repro-temporality visually and rhetorically invoked in fertility campaigns, in medical literature, and in the commercial marketing material of a sperm-freezing company? Situated within an interdisciplinary theoretical framework, the article draws upon biomedicalization theory (e.g., Clarke *et al.* 2003), reproductive masculinity studies (e.g., Almeling and Waggoner 2013; Daniels 2006), critical cultural gerontology (e.g., Sandberg and Marshall 2017), and feminist theories of time and temporality (e.g., Amir 2006; Freeman, 2010). This article contributes to the interdisciplinary scholarly agenda on time and temporality by conceptualizing a male biological clock as a type of repro-temporality that, in its discursive and aesthetic framing, portrays male reproductive aging as involving loss and disability. The article concludes that, while the male biological clock derives its temporal force from the logic of decay, it simultaneously cements heteronormative ideals of the nuclear family, re-naturalizes the genetic unit, and situates men as “proactive” and “modern” in their anticipation of future infertility.

Keywords: biological clock; sperm; men; reproduction; elective sperm freezing; fertility campaigns



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“People lose muscle strength, flexibility and endurance with age, in men, sperm also tend to lose ‘fitness’ over the life cycle”

Interview with physician Gloria
Bachmann in *The Economic Times* 2019

“The battle of the sexes just got a lot more equalized” (Bailey-Millado 2019). Although this statement from the *New York Post* visually featured an African-American man holding a baby, it highlights the existence of a male biological clock. Advanced paternal age is not only a risk to the health of the fetus, the *New York Post* article forewarned its readers, but also plays an active role during gestation and may lead to gestational diabetes, preterm birth, and preeclampsia (Bailey-Millado 2019). Echoing this concern, Gloria Bachmann, physician and Professor in the Department of Obstetrics, Gynecology, and Reproductive Sciences at Rutgers University, noted that—like the body—sperm ages and loses its “fitness” (*The Economic Times* 2019). Combined with the knowledge that 40-50% of all infertility cases can be attributed to “male factor infertility” (Kumar and Singh 2015), and that men’s sperm quality appears to be rapidly on the decline (e.g., Carlsen *et al.* 1992; Levine *et al.* 2017; Sengupta *et al.* 2017), scientific attention has thus begun to turn to the role that paternal age plays in conception, gestation, and in the health of offspring (e.g., Lambert, Masson, and Fisch 2006; Pasqualotto, Borges, and Pasqualotto 2008).

The scholarly interest in men’s role in reproduction is also emerging in social-scientific research. For example, sociologists Rene Almeling and Miranda R. Waggoner (2013) note how men’s reproductive importance in the United States has historically been reduced to conception; specifically, what has been seen as the life-giving qualities of the male ‘seed.’ In the process, men’s reproductive responsibilities with regards to gestation and childrearing have largely been ignored. Meanwhile, based on a large interview study of Arab men, anthropologist Marcia C. Inhorn (2012) uses the phrase “emergent masculinities” to conceptualize the ways in which contemporary men negotiate and become entangled

with both infertility and reproductive technologies. Similarly, albeit based on a large interview study with Mexican urology patients, anthropologist Emily Wentzell (2013; this issue) examines what men say and do when they negotiate reproductive aging and erectile dysfunction. Social-scientific scholarship has also explored how masculinity and reproduction entangle in ethnographic accounts of sperm donors (e.g., Almeling 2011; Mohr 2018), during contraceptive decision-making among men in Central and South America (e.g., Gutmann 2005; Wentzell 2013), in historical accounts of eugenic and sterilization practices (e.g., Balasubramanian 2018; Dyck 2013; Shropshire 2014), and in the history of hormonal contraceptives for men (e.g., Campo-Engelstein *et al.* 2019; Oudshoorn 2003). There are also ethnographic accounts of men's experiences with infertility and in-vitro fertilization (IVF), including cultural ideals of masculinity (e.g., Inhorn 2012; Tjørnhøj-Thomsen 2009) as well as in cultural analyses that situate sperm as a normatively gendered fluid (Martin 1991; Moore 2007). To date, however, very little social-scientific attention has been given to the ways in which scientific, commercial, and fertility campaigns related to men's reproductive aging seek to intervene in men's reproductive lives.

Situated within the current social-scientific research on men and reproduction, this article aims to highlight the construction of a biological clock for men. To do this, I rely upon an interdisciplinary theoretical framework—specifically, biomedicalization theory (Clarke *et al.* 2003; Clarke *et al.* 2010) to frame men's reproductive aging within individualized demands for enhancement and 'successful' aging. In addition, I use the concept of "reproductive masculinity" (e.g., Daniels 2006) and feminist theories of time and temporality (e.g., Amir 2006; Freeman 2010) to describe the discursive and aesthetic construction of a male biological clock. Based on a review of scientific literature, the marketing of voluntary sperm freezing, and a recent fertility campaign in Copenhagen (Denmark), I investigate: How does the notion of a biological clock regulate male reproductive bodies, and how is male reproductivity visually as well as discursively invoked in these accounts? I return to a presentation of my methodology later; in the next section, I briefly discuss the theoretical framework for my analysis.

Biomedicalized and timed: The emergence of male repro-temporality

The idea of a 'biological clock' became popularized following an article that journalist Richard Cohen wrote for *The Washington Post* in 1978. His concept of a 'biological clock' targeted specifically women with the effects of advanced maternal age while silencing or altogether ignoring the ways that a similar clock may tick for men. In Cohen's framing, the woman who works outside the home (the "Composite Woman") is targeted, particularly when he writes: "Sometimes the Composite Woman is married and sometimes she is not. Sometimes, horribly, there is no man on the horizon. What there is always, though, is a feeling that the clock is ticking. A decision will have to be made."² In this way, the biological clock was, from the outset, a cultural regulatory mechanism—i.e., "regulating forms of living according to heteronormative perceptions" (Amir 2006, 51). Today, the biological clock continues to be conceptualized as a *female* clock, and the very notion that the clock ticks for men has only gradually emerged over the past decade (e.g., Fisch 2005). In general, as political scientist Cynthia R. Daniels (2006) notes, little attention has been paid to men's role in reproduction. She points out that, not only have men been assumed to be secondary to reproduction, but they have also been cast as less vulnerable, always virile, and distant as far as the health problems of their children are concerned (Daniels 2006). In the following, I briefly turn to feminist theories regarding a male biological clock, situating it within an increasingly biomedicalized culture, critical understandings of time and temporality, and what I call male repro-temporality.

The concept of biomedicalization signals an important shift from the ways that the aging body has historically become entangled with images of illness, disability, and disease. In the biomedicalization paradigm, the body is now re-entangled with a more general cultural requirement to stay healthy—

even as one gets older. Whereas the medicalization framework includes a desire to *control* the human body, the term *biomedicalization* signals greater attention to risk and prevention (Clarke *et al.* 2003, 2010). Thus, characteristic of processes of biomedicalization are the ways in which technologies and commercial practices jointly provide new understandings of the aging body. Notably, it is no longer necessary to have any medical symptoms to be considered ill or 'at risk'; rather, "everyone is constantly in the process of seeking enhancement in the attempt to avoid eventually becoming ill" (Clarke *et al.* 2003, 172). Consequently, biomedicalization refers to how the aging body becomes entangled with societal expectations as well as commercial and emergent technological practices related to contemporary cultural requirements for prevention and optimization: "Biomedicalization practices emphasize transformations of medical phenomena and of bodies, largely through sooner-rather-than-later technoscientific interventions not only for treatment but also increasingly for enhancement" (Clarke *et al.* 2010, 2). As a concept, then, biomedicalization constitutes a useful framework for capturing emergent scientific, clinical, and technological innovations as well as for critically examining the ways in which 'successful' aging and reproduction have both become individualized moral responsibilities. Thus, the concept of biomedicalization reveals a more general turn towards prevention and risk management in everyday biomedical practices (e.g., Adams, Murphy, and Clarke 2009; Clarke *et al.* 2010). As noted by sociologist Adele E. Clarke *et al.* (2010), an optimized and enhanced body has become the norm.

Some feminist scholars have critiqued the very idea of 'successful' aging (e.g., Fishman 2010; Roberts 2002; Sandberg and Marshall 2017). For example, in her analysis of the marketing of hormone-replacement therapy to menopausal women, sociologist Celia Roberts (2002) suggests that the biomedicalization of women's bodies affirms conventional understandings of heteronormative femininity. In the case of women's aging, this means situating women as primarily young and, most importantly, attractive (Roberts 2002, 39). Similarly, in her analysis of the widely prescribed erectile-dysfunction drug Viagra, bioethicist Jennifer R. Fishman (2010) debates how "positive" and "successful" aging, as far as men are concerned, collide with normative understandings of male sexuality and virility. According to her: "'Positive aging' began to emerge, touting scientific developments as the path to successful aging, through ideals of vitality, activity, autonomy, and well-being. These ideals still persist in contemporary understandings of erectile dysfunction" (2010, 291). Characteristic of this work is the notion that contemporary biological citizens should be able to foresee their likely futures or, as noted by anthropologist Vincanne Adams, historian Michelle Murphy, and sociologist Adele E. Clarke, staying "'informed' about possible futures has become mandatory for good citizenship and morality" (2009, 254). In the case of reproduction, citizens must risk-manage their reproductive futures through an anticipation of infertility (e.g., Martin 2010), engaging in acts of what could be framed as "responsible" reproduction in the process. Responsibility should, of course, be understood here as a rhetorical and temporal strategy akin to the individualizing discourses of self-determination. My use emphasizes the normative expectations that individuals employ to manage their present fertility in order to ensure *future* fertility and the making of what becomes seen as "healthy" new citizens.

The notion of 'successful' aging has also aptly been critiqued in cultural gerontology (e.g., Sandberg and Marshall 2017). As gender studies scholar Linn Sandberg and sociologist Barbara Marshall (2017) discuss, successful aging is intimately linked to assumptions of happy and heteronormative bodies. However, with a focus on queer aging, Sandberg and Marshall disrupt "the narrative of hetero-happiness," revealing "alternative ways of thinking and theorizing that might provide space for a great diversity of later lives, including those rendered abject in current models of 'successful aging'" (2017, 2). Interestingly, heteronormativity—along with the cultural imperative to reproduce—come together in the making of the happy and healthy (active) later life. As they write: "Success is not just illustrated

through coupledness, but also portrayed through happy intimacies with grandchildren, pointing to (hetero)kinship as what which makes later life meaningful and positive" (2017, 3). In this manner, the Child becomes a cultural trope that contributes to the privileging of heterosexuality and reproductive futurity (Edelman 2004).

Embedded in this feminist critique is a discussion of heterosexual temporality in particular. Whereas communication and rhetoric scholar Dustin Goltz (2013, 68) refers to "heteronormativity's discursive hijacking of the future and the correctness of straight temporalities," gender/sexuality/queer studies scholar Elizabeth Freeman (2010) develops 'chrononormativity' as a critical concept. Defined as "a mode of implantation, a technique by which institutional forces come to seem like somatic facts," Freeman (2010, 3) suggests that entire populations are synchronized in order for bodies to appear properly temporalized. The somatic temporality of the body (i.e., growing old, becoming infertile) entangles with institutional temporalities (i.e., how society structures procreation in people's lives), normative temporalities (i.e., when a man is considered too old to procreate), and affective temporalities (i.e., hoping to become a parent or fearing being infertile within a prognostic medicalized reproductive culture). Such temporalities can be understood as embedded within temporal techniques (i.e., calendars, clocks, and watches), thereby forming a temporal experience that may appear natural and feel like "my inner clock" that orients people in specific ways. As Freeman suggests (2010), in a neoliberal context, time is recalibrated as preferably always productive.

These feminist scholars have clearly indicated how the construction of the biological clock has gained cultural significance. Offering a genealogical and feminist approach inspired by philosopher Michel Foucault, cultural and political geographer Merav Amir (2006) views the construction of the biological clock as a mechanism for naturalizing gender differences. She argues that the linear and goal-oriented biological clock is embedded within a masculine logic. Conceptualized as an attempt to "turn back the clock," Amir (2006, 52) proposes that the biological clock seeks to remake a disrupted gendered order. In a similar vein, cultural studies scholar Lucy van de Wiel (2014a, 2014b) suggests that the biological clock reinstalls fears associated with the aging (infertile) female body. As she discusses in her analysis of British and Dutch news media, the biological clock is not an "ordinary" clock; rather, it reappears as "an alarm clock counting down time, referencing a general notion of bodily finitude and an understanding of desired parenthood as a temporal problem" (2014b, 15). Such feminist scholarship suggests that the biological clock regulates the gendered reproductive body. Amplified as an "alarm clock," the biological clock has, since the 1970s, been loudly telling women that their reproductive time is running out (Amir 2006; van de Wiel 2014b).

In combination with these ideas, biomedicalization theory helps to position male repro-temporality within an increasingly individualized biomedical culture. Here, optimization and enhancement become naturalized while feminist scholarship on time and temporality provides a framework for critically interrogating the ways in which reproductive temporality becomes gendered and puts reproductive masculinity to the test. Reproductive aging can be situated in light of the cultural requirement to risk-manage one's future. For example, building upon anthropologist Sarah Lochlann Jain's (2007) proposal that we are all living in prognosis, some feminist scholars note how contemporary people become defined as living in relation to statistical risks and probabilities related, e.g., to reproductive futures. Jain argues that the prognostic subject is constantly confronted by the fear of a likely future (2007); this has already been seen in the example of social egg freezing. Here, visual imageries turn delayed reproduction into a risky affair (van de Wiel 2014b). Yet, as I discuss in my analysis, it is also increasingly present in the formulation of elective sperm freezing as a response to men's aging and the fear of less-than-optimal future reproductive cells and offspring. In both cases, the cryopreservation of one's own reproductive cells becomes presented as a form of risk management as well as a way to prevent

reproductive aging—in the case of men, it is a metaphorical Viagra for one’s future reproductive chances. It is from within this mix, I argue, that the notion of male repro-temporality emerges. Having briefly outlined my theoretical framework, I turn now to my choice of empirical material.

Methodology: Tracking male repro-temporality in fertility campaigns, scientific literature, and commercial accounts

Akin to science and technology studies (STS) scholar Donna Haraway’s notion of staying with the trouble (2016), in this article, I view the construction of male repro-temporality as “trouble,” and I pursue the ways in which a contemporary fertility campaign, medical literature on men’s reproductive aging, and commercial endeavors both visually and discursively attempt to regulate and mandate men’s reproduction. Throughout the article, fertility campaigns, scientific literature, and commercial accounts are conceptualized as biopolitical interventions that, I argue, manage a set of cultural anxieties associated with the increasingly poor sperm quality of primarily white, Western men. Similar to earlier anxieties related to male infertility—such as the anti-masturbation campaigns of the 19th and 20th centuries (e.g., Garlick 2014; Hunt 1998)—cultural anxieties have historically focused on the production of “weak” sperm and thereby concerns about “weak” offspring. However, such concern has clearly been racialized as well as classed. As noted by sociology of law Alan Hunt (1998, 588) in reference to the anti-masturbation campaigns: “It is a distinctively class discourse; it is young men of the upper and middle classes that arouse concern.”

The empirical material for my analysis consists of three sets of data: a Copenhagen-based fertility campaign, 29 international scientific articles on men’s reproductive aging, and the marketing of elective sperm-freezing conducted by a new sperm bank in the United States. While the choice of several different geographical sites makes it impossible to generalize about, for example, Danish biopolitical attempts to manage men’s repro-temporality, my approach illustrates the ways in which male repro-temporality takes form in different commercial, marketing, and medical accounts. The publicly sponsored Danish fertility campaign, “Can your spunk do the funk?”³ was launched on billboards in Copenhagen and a website in 2018; it was the result of collaboration between the City of Copenhagen and Rigshospital’s fertility clinic. While both women and men who reside in Copenhagen tend to be older than the national average at the birth of their first child, the campaign indicates that infertility is the most common chronic illness among Danes aged 25–44. Estimating that one in four Danish men has poor sperm quality, which only worsens with advanced age, the campaign is primarily directed at young men. However, within this nuclear heteronormative domain, women are also featured in the website imagery. As a result of joint efforts between Danish politicians and leading fertility doctors, the campaign exemplifies the state’s attempt to regulate Danish men’s repro-temporality. In so doing, it not only ensures the sustainability of a population who can continue to financially support the Danish welfare state but, with its visual imagery, the campaign reinforces the specific imagery of white, college-educated, and middle-class reproductive future.

Such public-health campaigns related to reproduction are not new. In her historical account of pronatalism and reproduction in the United States, historian Laura Lovett traces positive eugenics in public campaigns as exemplified by, e.g., “fitter families contests” (2007). Characteristic of the positive eugenics of the 1920s, each family was understood as a genetic unit, and their combination of good ancestry and upbringing became equal to good breeding (Lovett 2007, 141). The fitter-family contests were meant to encourage “healthy living” while also institutionalizing particular body norms and scientific measurements. Moreover, at a time of increased urban development, these contests effectively celebrated the rural family as an idealized family type. As Lovett notes, “the fitter family contests were a campaign of popular education that lent scientific credence to a nostalgic vision of the rural family”

(2007, 161). While contemporary Danish fertility campaigns may bear little immediate resemblance to the fitter-families contests of the 1920s, they do—as I explain in my analysis—reinforce the premise of “good genetic stock” together with the concern and responsibility related to “infant health,” which is now being recalibrated in the face of declining birth rates and new family forms.

To further understand how a male biological clock has emerged and is conceptualized, I include contemporary scientific and commercial accounts. A PubMed search using the terms “advanced paternal age” revealed 474 scientific, peer-reviewed articles while a search using the words “male biological clock” resulted in 4,511 articles, and a search on the word “andropause” resulted in 598 articles. All results were then sorted through the PubMed system for “best match,” and the top 60 results from each of the three searches were analyzed for relevance. Once sorted through for relevance, my medical archive of scientific, peer-reviewed articles consisted of 29 articles published in medical journals between 1997 and 2019. I argue that scientific articles are important; not only do they discuss scientific terms and negotiate what comes to constitute new biomedical truths, they also have a spill-over effect into the increasingly commercial industry of reproductive health. As noted by urologists and reproductive specialists Ranjith Ramasamy, Koji Chiba, Peter Butler, and Dolores J. Lamb (2015, 1404), scientific findings related to the effect of advanced paternal aging encourage younger men to cryopreserve their sperm.

An example of such a commercial endeavor is a US-based elective sperm-freezing company—Dadi—which, for a price of \$99.99, will send men residing in the continental US an at-home sperm-collection kit. For an annual cryopreservation storage fee of an additional \$99.99 and a withdrawal fee of \$299.99, men can voluntarily store and withdraw their sperm. Whereas scientific articles provide insights into the ways that male repro-temporality has emerged in the medical domain, the ability to zoom in on a contemporary commercial practice enables me to pinpoint the ways that imaginaries related to male repro-temporality slip into—and may gain additional force from—the commercial domain. In this way, “The commodification of health is fundamental to biomedicalization” (Clarke *et al.* 2010b, 48). There may also be links to biocapital; e.g., when emergent technological developments appear to enable “new ways to circuit of capital” (Rose 2007, 150). Meanwhile, I have chosen to focus on two different national contexts (Denmark and the United States) in order to highlight the ways that male repro-temporality is activated differently in different national and empirical contexts.

Because my interest lies in identifying how the biological clock seeks to regulate the male body and the ways in which male repro-temporality is invoked both visually as well as discursively, I rely upon a grounded-theory approach (Strauss and Corbin 1997) to analyze the empirical material. Using an open coding of themes related to my research focus, I detail how male repro-temporality emerges in this material. Two themes were especially dominant: the theme of “unfit sperm”; and the making of the “proactive” and “modern” man. Importantly, the notion of “fit” sperm appeared in both the scientific literature and the commercial accounts, while the construction of the proactive and modern man was unique to the fertility campaign as well as the commercial accounts. Moreover, whereas the notion of “fit sperm” ties in with positive eugenics and the reinstallation of “good genes,” the imagery of proactive and modern men in the empirical material draws upon new perspectives of men as involved, responsible, and anticipatory partners and fathers. While engaging the empirical material in different ways, both themes suggest that male repro-temporality debunks traditional notions of reproductive masculinity; instead, it repositions men as responsibly oriented towards their reproductive future.

Tick, tock: The emergence of a male biological clock

“Men have biological clocks that affect their hormone levels, fertility, and the genetic quality of their sperm. Women should no longer be viewed as solely responsible for age-related fertility and genetic problems”

Lambert, Masson, and Fisch 2006, 616

What do George Clooney, Billy Joel, Elton John, Alec Baldwin, Mick Jagger, Steve Martin, and Eddie Murphy have in common? Joining the list of old dads, these celebrity men have fathered children well past the typical childbearing age. In general, the age of paternity has increased in the West. In the United States, the birth rate among fathers aged 35–39, 40–44, and 45–49 increased 61%, 63%, and 52% respectively in 2014 (Eisenberg and Meldrum 2016). While this may be attributed to increased life expectancy, an increase in divorces and remarriages as well as access to assisted reproductive technologies (Brandt *et al.* 2019, 81), the trend is similar in other Western countries. For example, in Denmark, the average age at which a man had his first child was 31.5 in 2020—up from 28.8 years in 1990 (Danish statistical yearbook 2020).

In *The Male Biological Clock*, urologist Harry Fisch (2005) warns that men’s fertility potential declines with age. While Fisch popularized the concept of a male biological clock, it is interesting to note that—up until that point—the general Western medical community had been slow to investigate the ways in which male fertility and age intertwine; in my PubMed search, most results appeared only after 2004. In most of this scientific literature, advanced paternal aging was recognized and estimated to begin at the age of 40. Echoing this, the American Society for Reproductive Medicine puts 40 as the upper age limit for sperm donors (Brandt *et al.* 2019). Similarly, the European Sperm Bank, located in Denmark, has age 40 as the upper limit for their sperm donors, and Cryos International, the world’s largest sperm bank, has set its limit at age 45. However, some scientists speculate that advanced paternal age may even start at age 35. According to epidemiologists Anne-Marie Nybo Andersen and Stine Urhøj (2017, 312): “Most studies denote paternal age of 40 years or more as fathers of advanced age, but the risk increase in indisputable paternal age-related conditions starts around the paternal age of 35 years.” Urologists Fabio F. Pasqualotto, Edson Borges, and Eleonora B. Pasqualotto (2008, 198) also point to 35 as a critical age for men: “After controlling for maternal age, couples in which the man is over 35 years old have a 50% lower pregnancy rate than do couples in which the man is not more than 30 years old.” While an age-related decline in testosterone may negatively affect men’s fertility potential, current research indicates that DNA fragmentation may potentially put offspring at risk, thus leading some scholars to ask: “Is advanced paternal age a health risk for the offspring?” (Sigman 2017, 299).

While the biological clock has historically been constituted as a gendered ticking time-machine (e.g., Amir 2006; Friese, Becker, and Nachtigall 2006), this construction is now invoked in the case of men as well. In biomedical, commercial, and marketing accounts, the emergence of the male clock contributes to an understanding of male reproductive aging as involving the production of “unfit” (decayed and faulty) sperm. Contrary to the biological clock for women, which disciplines them from becoming involved in the workforce, men’s biological clock—particularly in the commercial accounts—repositions reproductive masculinity into that of the “proactive” as well as the new “modern” man and engaged father. In the ways in which a biological clock seeks to regulate larger populations, it is thereby always biopolitical. As noted by anthropologist Ayo Wahlberg (2018) in reference to his ethnographic work in China and that country’s alleged “national sperm crisis,” fertility concerns invariably become linked to concerns about ‘reproducing the nation.’

The making of “unfit” sperm

From ‘fast and furious’ to ‘decrepit and faulty,’ reproductive aging is put in close proximity to reproductive decay in both the scientific literature as well as in the Copenhagen fertility campaign. Here, men’s aging bodies become translated into decayed sperm cells. Sperm cells appear visually disabled as well as immobile (photo 1). Although none of these “old” cells are gendered, they are all visually portrayed as “unfit”; i.e., one of them uses a walker while others appear to have difficulty reading or are even blind and use a cane (photo 1). Characteristic of the campaign’s visual portrayals is that the cells reveal a fault—e.g., sperm depicted with two tails. This aesthetic of decay is further documented in the authoritarian male voice-over: “Every fourth man has reduced sperm quality,” we learn, and “every fifth man does not become a father.” This information is followed by an image of a white couple walking during an autumn day. Whereas leaves falling signals the onset of winter, it also aesthetically highlights the couple’s aging process—and the viewer is told directly: “It doesn’t have to be you.” As if transformed by this message, the couple then joyfully walks with a baby and the video ends, in a happy ending of sorts, with one muscular sperm cell happily displaying a gendered victory through a display of its biceps (photo 2).

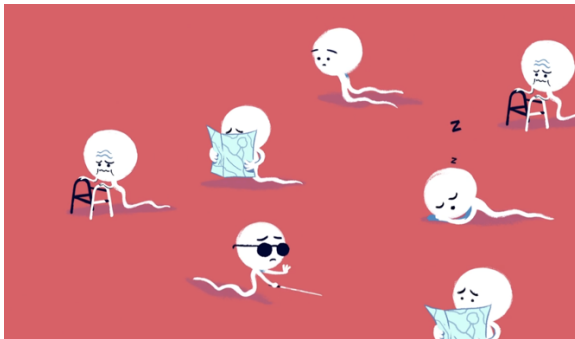


Photo 1



Photo 2

The Copenhagen campaign: Does your spunk do the funk? (Translated by the author from the Danish title: *Spiller din sæd?*).

Whereas the decrepit and disabled sperm cells in the Copenhagen fertility campaign debunk the myth of masculine reproductive *invulnerability* (Daniels 2006), the campaign simultaneously repositions men as becoming individually responsible for their own reproductive fitness. Not only is biomedicalized reproduction characterized by an intensified focus on health and optimization (Clarke *et al.* 2010), but individuals are also increasingly repositioned as having to be in control of their own anticipated future. Similarly, with a reference to “vital politics,” the focus is increasingly on the individual’s ability to “control, manage, engineer, reshape, and modulate the very vital capacities of human beings as living creatures” (Rose (2007, 3). In the Copenhagen campaign, the comment “It doesn’t have to be you” reiterates this understanding of fertility as firmly situated within the confines of the individual. Moreover, by combining this statement with a heterosexual couple, successful aging is invariably linked to the reproduction of heteronormative forms of kinship (cf. Sandberg and Marshall 2017).

In the fertility campaign, aging becomes translated into miniature cells. The viewer is initially confronted with a lone, tired (and presumably elderly) sperm cell relying on the assistance of a walker. However, this old and lonely sperm cell is contrasted with the general optimism that the young couple displays. “I would like to have children,” says the young and, presumably, cis-gendered male (i.e., a person whose sense of personal gender identity corresponds to their birth sex), posing together with his

white female partner. Situated in front of the city skyline, this urban, white, heterosexual couple appears optimistic, yet their optimism is temporally disciplined when the authoritarian male voice-over says: “But perhaps you should consider getting started.” Physically situated at a table behind two computer screens, the couple’s decision to surround themselves with books, computers, and red wine is called into question. Youthfulness and optimism become replaced by the image of this couple’s transformation into an old couple. Visually displayed as distraught and tired, this older and slightly overweight couple (perhaps due to too much wine and a sedentary lifestyle) has none of the optimism or energy of their youth. Such a representation serves as an aesthetic reminder of the older, miserable, childless couple, and echoes the ways in which heteronormativity, reproduction, and a happy senior life intersect (Sandberg and Marshall 2017). In the fertility campaign, a desire to have children is replaced with a reminder that reproduction and parenthood “may take some time.” Although still visually displayed as a couple, the consequences of infertility are shown to be serious. At this point in the video, the man assumes the aesthetic position of the infertile half of the couple when he is seen carrying not a child but two cats. “You can’t count on your sperm cells doing the funk,” he is told. A large group of happy-go-lucky (smiling) sperm cells that appear in the middle of a footrace—obviously, fit and healthy, and capable of moving in the “right” direction—immediately become replaced by the immobile, tired, and old-looking cells (photo 1). In this manner, childbearing and heteronormativity become synchronized and linked to happy and fit bodies as well as sperm cells.

Recalling sociologist Carrie Friese, medical anthropologist Gay Becker, and obstetrician-gynecologist Robert D. Nachtigall’s (2006) and sociologist Charis Thompson’s (2005) observations that the biological clock has become epitomized as *old* eggs, men’s reproductive aging is translated into *old* sperm cells in the Copenhagen fertility campaign. However, the “happy ending” in which a muscular sperm cell (photo 2) represents reproductive masculinity also underscores the potential for reproductive optimization translated into the ability to father one’s own genetic children. As echoed in political scientist Cynthia Daniels’ (2006) construction of reproductive masculinity, infertile men are frequently feminized and emasculated, which the campaign visually displays as decaying cells. Similarly, the old sperm cells have none of the strength and forward momentum of the fast-swimming, excitable cells that become present in what appears to be a footrace. As Daniels suggests (2006), reproductive masculinity reveals how men’s abilities and desires to reproduce (or not) are always entangled with gendered reproductive as well as nationalist agendas. Moreover, in the campaign, fertility becomes reconstituted as a moral obligation. Noting the morality related to health in general, Clarke *et al.* (2010, 63) argue that the “focus is no longer on illness, disability, and disease as matters of fate but on health as a matter of ongoing moral self-transformation.” Reconceptualized as a form of fertility awareness, then, the Copenhagen campaign is a visual and textual reminder that young, white, educated, and urban Danish cis-gendered men must take their reproductive abilities seriously. In this campaign, male reproductivity becomes interwoven with a new moral order that specifically addresses men. In this way, scientific knowledge—along with the markets within which they become embedded—“embody and generate new ethical value. As life itself is penetrated by market relations and becomes productive of wealth, the morality governing some forms of economic exchange is being reconfigured” (Rose 2007, 152).

The translation of male reproductivity into the production of “unfit” sperm cells is reiterated in some of the scientific literature I analyzed. However, now re-conceptualized as “DNA fragmentation,” andrologists Ranjith Ramasamy, Koji Chiba, Peter Butler, and Dolores J. Lamb (2015, 1404) echo the notion that aging produces cellular decay: “In men between 60 and 80 years of age, the percentage of DNA fragmentation in ejaculated sperm is estimated to be 88%.” Similarly, as they link declining reproductive abilities with men’s age, Pasqualotto, Borges, and Pasqualotto (2008, 198) argue: “It has been demonstrated that men over 35 years of age are twice as likely to be infertile (defined as the

inability to initiate a pregnancy within 12 months) as men under 25 years old.” Moreover, entangling aging and reproductive decline with sperm cells as a reproductive unit, they note: “In men, advancing age decreases semen volume, percentage of normal sperm and sperm motility. While these factors adversely affect fertility, the genetic integrity of sperm is at risk” (2008, 198).

Similarly, in the realm of commercial sperm-freezing endeavors, men are told that “age matters” (Dadi 2021). Along with the image of a fast-ticking clock, the prospective Dadi customer learns that, “after age 40, sperm count decreases, and you become more likely to pass on birth defects, neuro-cognitive disorders, and increase the risk of miscarriage” (Dadi 2021). In the making of “unfit” sperm, male infertility is positioned as rampant (50% of infertility is attributed to sperm”; Dadi 2021). Men are also reminded that the health of their offspring is at stake. In particular, according to Pasqualotto, Borges, and Pasqualotto (2008, 198), the offspring of men aged 40 and above are “5.75 times more likely to have autism spectrum disorder (ASD) than were the offspring of men younger than 30 years, after controlling for year of birth, socioeconomic status and maternal age, also older men were at higher risk of fathering a child with schizophrenia. Men over 40 years old were more than twice as likely to have a child with schizophrenia as were men in their twenties.” Reproductive aging has also been linked to autism (e.g., Schubert 2008), and to the development of diabetes and some childhood cancers (e.g., Lewis, Legato, and Fisch 2006). Moreover, it now takes longer for men to become fathers. Commercial sperm-freezing banks such as Dadi claim: “Millennials are 50% as fertile as their parents’ generation. There is a 5 times longer time-to-pregnancy at age 40 than at age 25 due to infertility” (Dadi 2021). In this empirical material, male repro-temporality is positioned as a “serious problem to the couple seeking to conceive a child” (Ramasamy *et al.* 2015); this reinforces the development of a new moral order in which the ticking reproductive alarm clock, as exemplified by unfit sperm cells, ticks for men too.

The making of “proactive” and “modern” men

“This report has led younger men to question whether they should bank sperm while young to prevent the risks “associated with advanced paternal age”

Ramasamy *et al.* 2015, 1404

The making of “unfit” sperm situates men’s aging within reproductive decay and appears across my empirical material. But I argue that the cultural anxieties associated with male repro-temporality are resolved in the making of “proactive” and “modern” men. Reproductive masculinity, while challenged, is also reiterated and strengthened. This is especially true in the cases of the Copenhagen fertility campaign and the Dadi commercial accounts. In both, the aesthetic and rhetorical construction of men includes that of proactive, fit, and good-looking men who wisely anticipate their potential reproductive futures. Similar to Rose’s (2007, 7) observation that “securing the best possible futures” is vital, these men actively engage in monitoring and self-evaluation. Conceptualizing this as a “regime of the self”, Rose (2007) says: “Each individual is engaged as a prudent yet enterprising individual, actively shaping his or her life course through acts of choice, activities that extend to the search for health in the face of the fear of illness, and the management of the risks” (154). Proactive men seek to actualize “optimal futures” that involve “engagements with regimes of risk and surveillance, extended responsibility for knowledge accumulation and consumption, and taking up new kinds of biomedically-inflected identities” (Clarke *et al.* 2010, 23-24). In the Copenhagen campaign, the visual imagery shifts between an optimistic, wine-drinking young couple, a tired-looking older couple, and a couple in which the male partner is carrying a child (contrasted with the image of older-him holding two cats). These shifts aesthetically remind the male viewer of the importance associated with securing his reproductive

potential through a heteronormative coupling. The young, attractive, fit, and nicely dressed men in the Dadi commercial similarly testify to a conventional aesthetic associated with that of the proactive man.

Anticipation is key in the construction of proactive and modern men. In the case of the Dadi marketing material, the prospective customer (and father) learns that voluntary sperm-freezing is about “protecting your future family for a fraction of the cost” (Dadi 2021). As noted on the company’s website: “We believe in empowering you by drastically breaking from the norm” (Dadi 2021). Once the lab receives the customer’s sperm, he is sent an email with the results along with a video of his sperm cells. Testing for sperm concentration and volume, the Dadi tests attempt to bring men “back on track.” As noted by the company: “The future is full of questions. Making sure you’re able to have a family shouldn’t be one of them” (Dadi 2021). In this manner, elective sperm-freezing turns into an anticipatory practice akin to elective egg-freezing (Carroll and Kroløkke 2018; van de Wiel 2014b). Clarke *et al.* (2010, 24) theorize this move when they argue that biomedicalization involves a “constant anticipatory orientation toward the future, toward potentialities.” In the context of Dadi’s marketing materials, sperm-freezing becomes discursively as well as aesthetically constructed as a modern tool of empowerment that can contribute to the making of the new modern man; e.g., when the company states: “We’re reimagining fertility by providing a modern, accessible option directly to you” (Dadi 2021).

Supportive of the modern, urban, cis-gendered, and heterosexual position, men depicted on the Dadi website interact with women as well as with what appears to be their own genetic children. For example, an African-American man in a fully equipped kitchen bakes bread together with an approximately five-year old child. Supportive of an urban form of reproductive masculinity, the construction of this new modern man is further reinforced by images of an urban apartment, a sports bike, relaxed yet fitted clothes, and a backpack large enough to fit the Dadi sperm-collection box (Dadi 2021). Here, technology and convenience come together, as the company claims (Dadi 2021). On the Dadi website, there are images of a young, slender, and fit-looking African-American man who receives the sperm-collection kit while situated in a nice, orderly apartment. His bedroom is tastefully decorated: white linen, fluffy pillows, white bedspread, matching black glass lamps, small black bedside tables with books on them. This New York-style apartment (brick walls, windows facing other brownstone apartments) is then replaced by an image of a couple sitting together on the bed. This fully-clothed, Caucasian couple appears relaxed; the woman is listening to the man speak, and the blue Dadi sperm-collection box is placed at the man’s feet. Directed at the urban man and visually exemplified by a racially diverse yet quite heteronormative group, the Dadi box closely resembles that of an Apple computer box and is always neatly placed either on the bed, by the man’s feet, in his bag, or on the table.

Like the Copenhagen fertility campaign, temporality is embodied in the material by the sperm cells. Dadi, for example, promises their customers the security of peace of mind through the act of securing, freezing, and storing so-called “younger” sperm cells: “Dadi ensures that couples can use healthy, younger sperm when they’re ready to start a family, putting you in charge of your own future” (Dadi 2021). The “younger” cells are here put in proximity to images of men playfully interacting with young, healthy-looking children—when combined with images of men on the floor drawing with their children, this further reiterates an understanding of men’s role in gestation and birth as well as imaginaries of involved fatherhood.

With the visual imagery of happy and healthy-looking children, sperm-freezing becomes reconstituted as a rescue technology that enables heterosexual and cis-gendered men (like women) to bypass the problems of aging and, in the process, to engage in new understandings of fatherhood. Dadi reinforces heteronormative reproductive masculinity through the assistance of cryo-technologies. Similar to how egg freezing becomes translated and visually depicted on the clinical websites as a sound, even responsible,

investment strategy (Kroløkke 2019), such technological developments reshape “vitality from the inside” (Rose 2007, 20). Cryopreservation promises to optimize heterosexual and cis-gendered men’s life chances, thereby synchronizing reproduction with the realities of increased life expectancy and reproductive aging. Similar to egg-freezing advertisements directed at women (Carroll and Kroløkke 2018; van de Wiel 2014b), cryo-technologies for sperm seem to ensure the customer his best future odds for becoming a father. In the case of Dadi, the biological clock becomes a justification for cryopreservation technologies, and men are reminded that their best years for fertility are “running out.” Consequently—and in contrast to both the scientific literature and the Copenhagen fertility campaign in which aging is equated with decay and a loss of testosterone—Dadi’s sperm-freezing material rejuvenates men in terms of their reproductive abilities, their ability to engage in proactivity, and their new, empowered fatherhood roles.

Compared to the accounts of women’s biological clock, male repro-temporality is clearly managed as less urgent. In the scientific literature, the notion of a male biological clock makes men co-responsible for the reproduction of healthy offspring. According to urologists Sarah M. Lambert, Puneet Masson, and Harry Fisch (2006, 616), “women should no longer be viewed as solely responsible for age-related fertility and genetic problems.” However, although the scientific literature I studied addresses the existence of a biological clock for men (since 2004), it also suggests that a male biological clock is somewhat more flexible—even reversible—noting that some men become fathers well past their retirement years. It is not possible to stop or reverse women’s biological clocks (van de Wiel 2014a, 2014b) but, in the case of men, fatherhood becomes a temporal problem, albeit one not equated with finitude. This is especially evident in the case of anecdotal accounts. For example, Ramjit Raghav reportedly became the world’s oldest father at age 96, attributing his prowess to a vegetarian lifestyle, and a newspaper report about him claimed: “Vegetarians still got it at age 96.”⁴ Rather than exclusively playing into certain cultural anxieties associated with male reproductive failure, the commercial accounts I examined conventionally reactivate reproductive masculinity. Specifically, these accounts turn the men who engage in reproductive anticipation—as well as those who can afford these emergent reproductive consumer practices—into new, modern men and involved fathers. In sharp contrast to women’s egg-freezing accounts, men’s reproductive failure and decline are described in narratives of empowerment and modernity.

Conclusions

This article has examined the ways in which the notion of a biological clock seeks to regulate men’s reproductive bodies. Feminist scholars have analyzed how the biological clock structures women’s reproductive lives; however, currently, little is known about how the emergence of male repro-temporality influences men. Interestingly, at a time when families are becoming increasingly diverse—with women having children with sperm donors, men having children through surrogacy, or the various ‘rainbow,’ adoptive, and step-families—an insistence on *genetic* families relies on a quite traditional agenda. The Copenhagen fertility campaign, the scientific articles related to men’s reproductive aging, and the commercial sperm-freezing accounts in my empirical material provide self-selecting individuals with an opportunity to idealize and synchronize reproductive hetero-time along with their genetic heritage. Taking inspiration from feminist scholarship on biomedicalization, time and temporality as well as critical age studies, I have argued that male repro-temporality becomes articulated through individualized forms of self-enhancement and moral responsibility. As I have discussed, there is a moral responsibility associated with reproducing healthy offspring and, in doing so, a heteronormative order of reproduction and the nuclear family becomes reinforced.

Throughout the empirical material I analyzed, men’s fertility is described in a discourse of decline; nevertheless, it is managed (and overcome) through conventional gendered framing. A nostalgic moral order is reiterated throughout the material. In this discourse, the genetic tie is positioned as central in the

construction of “new,” “modern” men who are also “involved” fathers. Having children then becomes entangled with the reiteration of an educated middle- and upper-class. In this entanglement, imaginaries of proactive and “modern” men reproduce a particular understanding of the nation as well. Clearly, more empirical research is needed to illuminate how men become implicated as users of emergent reproductive technologies as well as to investigate their perspectives and practices in relation to male repro-temporality. However, it is interesting to note that, while the construction of a male biological clock calls for a dismantling of the gendered biological clock—including the ways in which clock-based thinking has justified a gendered temporal organization of life—in my empirical material, reproductive masculinity is reiterated through the production of the “proactive” man who secures his seed in the production of his own “better” babies.

Notes

1. This title is a play on Lucy van de Wiel’s (2014b) article, “For Whom the Clock Ticks. Reproductive Ageing and Egg Freezing in Dutch and British News Media.” *Studies in the Maternal*, 6(1): 1-28.
2. Cohen’s chronicle appeared first on March 16, 1978 and can be found in the archive available at: <https://www.washingtonpost.com/archive/local/1978/03/16/the-clock-is-ticking-for-the-career-woman/bd566aa8-fd7d-43da-9be9-ad025759d0a4/> Retrieved October 30, 2019.
3. The Danish title of the campaign is “Spiller din sæd?,” which is a sexualized play on the vitality of sperm. The title is translated, by the author, to “Does your spunk do the funk?” Another possible translation could be: “Is your semen steamin’?” The campaign began in the autumn of 2018 and was displayed on billboards in Copenhagen as well as on a website. Today, the website is still active: <https://xn--spillerdinsd-hdb.dk/> Retrieved September 2020.
4. This is according to the article titled “India’s poster boy for vegetarianism – he just fathered a child at 96.” <https://www.independent.co.uk/news/world/asia/indias-poster-boy-for-vegetarianism-hes-just-fathered-a-child-at-96-8360464.html> Retrieved November 2019.

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