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ORIGINAL ARTICLE



Involuntary childlessness: Lessons from interactionist and ecological approaches to disability

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Abstract

Because many involuntarily childless people have equal interests in benefitting from assisted reproductive technologies like in vitro fertilization as a mode of treatment, we have normative reasons to ensure inclusive access to such interventions for as many of these people as is reasonable and possible. However, the prevailing *eligibility* criterion for access to assisted reproductive technologies—'infertility'—is inadequate to serve the goal of inclusive access. This is because the prevailing frameworks of infertility, which include medical and social infertility, fail to precisely capture and unify the relevance of certain involuntarily childless experiences as warranting assisted reproductive technology (ART) treatment. I argue that the least we can do for those who have an interest in accessing ARTs is to conceptualize involuntarily childless experiences in dialogue with interactionist and ecological models of disability, to outline a unified and more inclusive eligibility criterion.

KEYWORDS

assisted reproductive technologies, childlessness, fertility, in vitro fertilization, infertility, reproduction

1 | INTRODUCTION

We live in a world where it is possible for many involuntarily childless people to use assisted reproductive technology (ART) as a method of having children of their own. ART is typically understood to include "all fertility treatments in which either eggs or embryos are handled," though notably *not* procedures where only sperm is handled (e.g., artificial insemination). In the United States, ART has been used since 1981, with in vitro fertilization (IVF) treatment being one of the major modes of intervention for infertile patients. VF is done by combining

eggs and sperm outside the body to produce an embryo, which is then placed into the uterus. To date, over 8 million IVF children have been born.³ Since IVF is one of the most commonly utilized ARTs, my article will focus on IVF as a leading case for philosophical discussion.

The notion that ART can "treat" infertility suggests that infertility is just like any other medical condition that warrants treatment. Interventions like IVF, however, have drawn critical attention as a healthcare provision in comparison with other healthcare resources, because "IVF is an extremely costly way of remedying infertility."

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¹CDC. (2019). A public health focus on infertility prevention, detection, and management. https://www.cdc.gov/reproductivehealth/infertility/infertility-white-paper/page-two.htm ²lbid.

³Fauser, B. (2019). Towards the global coverage of a unified registry of IVF outcomes. RBMO, 38(2), 133–137.

⁴Smajdor, A. (2007). State-funded IVF will make us rich... or will it? *Journal of Medical Ethics*, 33, 468–469.

Emily McTernan has argued, for example, that infertility is not the kind of adverse functioning that justifies funding for treatment from a state. For the purposes of my paper, however, I will set aside the question of whether IVF is worth providing at all. I take it that it is at least equally plausible for us to think that IVF and other assisted reproductive technologies are, descriptively, very much sought after as a beneficial healthcare provision. If this is so, we have good reason to take their availability, access, and distribution to be worthy of ethical concern.

That biomedical interventions such as IVF are highly sought after is evident, for example, by the fact that many countries include infertility care in their health insurance policies or partially fund them through public health services. Furthermore, in a recent survey conducted in six European countries, many respondents answered that at least one IVF cycle should be publicly funded⁶ and expressed "favorable attitudes in relation to IVF and its success, the need for public funding, the use of IVF among modern families with different lifestyles, and support for gamete donation."⁷ I will not comment on the extent to which such views should be endorsed, as there is already a corner of bioethical literature in which the value of the desire to be biologically related to one's children is critically examined. 8 It seems fair enough to presume at this point, however, that many people think assisted reproductive technologies are a legitimate part of healthcare and that some also have a legitimate interest in receiving and benefiting from technologies like IVF as one way to make well-being gains and counteract what is commonly understood as "infertility."

Having now pointed out that many people have an interest in IVF as a healthcare provision, there are unfortunately inequalities in the access and uptake of IVF treatment globally, due to context-specific barriers. In places like the United States, the "limited number of private insurance markets and public programs covering infertility services, combined with high out-of-pocket expenses" is a major concern. The willingness and financial ability of people to undergo multiple IVF cycles, for example, depend on the out-of-pocket costs they incur. Other countries such as Denmark offer more generous schemes, with three IVF transfers covered with public healthcare for women of a certain age range. 11

Supposing that at least *some* countries around the world will offer partial public support for ART treatment, however, we should

Urology, 191(2), 427-432.

consider a more fundamental disparity that may arise between all those who are relevantly involuntarily childless: that of their perceived eligibility to receive interventions like IVF in the first place. The eligibility criterion of which we are concerned here is infertility what it means for someone to be considered infertile, and thereby in need of fertility treatment. Herein lies the problem-"infertility" currently determines who may benefit or lose out on such treatment. As I will argue throughout this paper, infertility as a concept excludes certain involuntarily childless groups who are not neatly covered under the typical conceptions of infertility. If assisted reproductive technologies like IVF are in practice available and constitute at least one acceptable way to "treat" the inability to conceive (alongside other options, such as adoption), we have strong normative reasons to ensure that the eligibility criterion for such treatment is as inclusive of as many relevant involuntarily childless groups as is possible and reasonable. As Cutas and Bortolotti have pointed out, "no unfair discrimination against prospective parents in need of assistance should be tolerated."12

Thus, although "infertility" is the more commonly used term to describe the eligibility criteria relevant for ART, my preferred term from here on out is the more inclusive involuntary childlessness, which is better suited to the normative task of this paper. Here, a clarification is in order: by involuntary childlessness, I am interested only in relevant cases that can explain the warrant or need for ART usage. A teenage woman who is merely impatient to have children, or someone who regrets having given up a child for adoption, might be "involuntarily childless" in a broad sense, but they are not thereby involuntarily childless in the strict sense I imply within the ART context. For now, then, let us construe involuntary childlessness warranting "treatment" as affecting aspiring, prospective parents who have not yet had success in having children of their own due to seemingly insurmountable barriers or obstacles, who experience feelings of distress, depression, anxiety, and complicated bereavement¹³ as a result, and for whom it may make sense to intervene with ART.

Notice how my outline of involuntary childlessness does not necessitate any specific *cause* of obstruction to parenthood. For the time being, this leaves the potential reasons or basis for treatment flexible and open to interpretation. What remains to be answered, then, is *how* to appropriately delineate between different cases of involuntary childlessness in ways that will ensure rightfully inclusive equal access to ART. To this end, I will first clarify why using either medical or social frameworks of "infertility" as an eligibility criterion for access to ART is not particularly useful nor sufficiently inclusive. In the third section, I go on to positively constitute my own account of involuntary childlessness by drawing from interactionist and

⁵McTernan, E. (2015). Should fertility treatment be state funded? *Journal of Applied Philosophy*, 32, 227–240.

⁶Fauser, B. C. J. M., Boivin, J., Barri, P. N., Tarlatzis, B. C., Schmidt, L., & Ley-Toledano, R. (2019). Beliefs, attitudes and funding of assisted reproductive technology: Public perception of over 6,000 respondents from 6 European countries. *PLoS ONE*, 14. 1–15.

⁷Ihid

⁸Roache, R. (2016). The value of being biologically related to one's family. *Journal of Medical Fthics* 42,755–756, 755

⁹Centre for Reproductive Rights. (2020). *Infertility and IVF access in the United States*: A human rights-based policy approach. https://reproductiverights.org/wp-content/uploads/2020/12/64785006_Infertility-and-IVF-Access-in-the-U.S.-Fact-Sheet_2.5.2020_Final.pdf ¹⁰Wu, A.K., Odisho, A. Y., Washington, S. L., Katz, P. P., & Smith, J. F. (2014). Out-of-pocket fertility patient expense: Data from a multicenter prospective infertility cohort. *Journal of*

¹¹Fertility Clinics Abroad. (2021). IVF Denmark. https://www.fertilityclinicsabroad.com/ivf-abroad/ivf-denmark/

 $^{^{12}\}text{Cutas},$ D. E., & Bortolotti, L. (2010). Natural versus assisted reproduction: In search of fairness. Studies in Ethics, Law, and Technology, 4, Article 1.

¹³Lechner, L., Bolman, C., & Van Dalen, A. (2007). Definite involuntary childlessness: associations between coping, social support and psychological distress. *Human Reproduction*, 22, 288–294; Fieldsend, M., & Smith, J. A. (2020). Either stay grieving, or deal with it': The psychological impact of involuntary childlessness for women living in midlife. *Human Reproduction*, 35(4), 876–885.

ecological models of disability to contextualize why the experience can rightly form a basis for intervention. I argue that my account will give us a promising guideline to construe a more ethically acceptable eligibility criterion in consideration of ART access.

2 | LIMITATIONS OF "MEDICAL" AND "SOCIAL" INFERTILITY

Some of the *limiting* criteria for those who are eligible for publicly assisted reproduction in places like Europe include an upper-age limit for women. Less commonly implemented limiting conditions might include already having children, which restricts access to publicly funded ART in countries like Denmark.¹⁴ There are also contentious factors, such as one's Body Mass Index. Countries such as New Zealand have even gone as far as to block obese women from accessing publicly funded IVF¹⁵ by alleging that obesity is a contraindication to assisted fertility services, though people have pointed out that "robust data showing an association between BMI and live birth in subfertile women are lacking." The Australian state of Victoria in 2010 enacted legislation that prevents patients with "certain criminal or child protection histories" from accessing ART.¹⁷

Many of these limiting criteria might be well justified, whereas others may be less so. Besides these, however, my focus here will be on the problems of the key eligibility criterion for access to ART, which is "infertility" itself. I endeavor to show that medical and social models of infertility on their own represent discordant and exclusive perspectives about who should count as in "need" of ART. This motivates my reflection of a more unified and inclusive eligibility criterion for access to ART, which I outline in the third section of my paper. In my view, making sure the eligibility criterion is inclusive is the very least we can do in our efforts to make ART access *fair*, given the multiple barriers and challenges people already face trying to access it.

The World Health Organization defines infertility as a *disease*, or medical disorder, ¹⁸ "...of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse." ¹⁹ Call this view *medical infertility*. Physical conditions—that is, *impairments*—which might prevent persons from conceiving "naturally" are various. For males, this may be due to aspects such as low sperm count or

abnormalities of ejaculation.²⁰ For females, infertility may be due to failure to ovulate, untreated sexually transmitted infections, or endometriosis, to name a few examples.²¹

The undesirability of medical infertility in the context of ART requires some unpacking: if it is not medically necessary for any one particular individual to have children, why does the "failure" to achieve a pregnancy matter morally? What makes physical infertility itself undesirable in a way that warrants medical treatment or "fixing" within a healthcare system? While this question might in part be answered as a matter of restoring normal bodily functioning, as per Boorsean biostatistical understandings of health and disease,²² this does not quite explain that not all impairments of fertility are in fact experienced negatively for the individual-nor does it explain the social constructions scaffolding the notion of the supposed badness of infertility. Most relevantly, it would not account for the intuition that, while it would be understandable (perhaps even expected) for somebody with infertility to seek medical treatment, few would claim that it is medically necessary for them to do so if that treatment is not desired. After all, some people might just not want children in the first place.

While we can recognize that having children, especially for women, remains a "considerable source of social status,"²³ and that failure to reproduce may be socially attributed to the "failure to be a 'man' or a 'woman,"²⁴ individually it is not necessarily the case that the inability to conceive is a problem that necessitates treatment. Whatever dysfunction-based *cause* of infertility is provided, it remains distinct from what is a negative or undesirable state in need of remedy via IVF or other such ART. The way that *medical infertility* is operationalized as an eligibility criterion for ART thus implicitly demands an explanation of a further "need" besides restoring normal functioning or alleviating physical impairment, alluding perhaps to the need for a more normative or value-considered account²⁵ that can explain nonphysiological reasons for which ART intervention might come to be seen as a treatment "need."

This issue is at the heart of the debate between medical versus social infertility. Proponents of *social infertility* recognize that there are indeed *non*-physiological reasons that constitute the "need" for interventions like IVF, such that medical infertility is neither necessary nor sufficient to explain the warrant for ART access. In general, as Hane Maung has argued elsewhere, the contested disease status of infertility means that "... we cannot uncontroversially justify or undermine the provision of state-funded treatment by claiming that infertility is or is not a disease." For example, single women and

¹⁴Calhaz-Jorge, C., De Geyter, C., Kupka, M S., Wyns, C., Mocanu, E., Motrenko, T., Scaravelli, G., Smeenk, J., Vidakovic, S., & Goossens, V. (2020). Survey on ART and IUI: Legislation, regulation, funding and registries in European countries: The European IVF-monitoring Consortium (EIM) for the European Society of Human Reproduction and Embryology (ESHRE). Human Reproduction, 1, 1–15.

¹⁵Tremellen, K., Wilkinson, D., & Savulescu, J. (2017). Should obese women's access to assisted fertility treatment be limited? A scientific and ethical analysis. Australian and New Zealand Journal of Obstetrics and Gynaecology, 57(5), 569–574.

¹⁶Pandey, S., Maheshwari, A., & Bhattacharya, S. (2010). Should access to fertility treatment be determined by female body mass index? *Human Reproduction*, 25(4), 815–820.

¹⁷Thompson, K., & McDougall, R. (2015). Restricting access to ART on the basis of criminal record. *Bioethical Inquiry*, 12, 511–520.

¹⁸Encyclopedia Britannica. (2021). Infertility. https://www.britannica.com/science/infertility.
¹⁹World Health Organization. (2020). Infertility. https://www.who.int/news-room/fact-sheets/detail/infertility

²⁰Brugh, V. M., Matschke, H. M., & Lipshultz, L. I. (2003). Male factor infertility. Endocrinology and Metabolism Clinics of North America, 32, 689–707.

²¹NIH. (2017). What are some possible causes of female infertility? https://www.nichd.nih.gov/health/topics/infertility/conditioninfo/causes/causes-female

²²Boorse, C. (1977). Health as a theoretical concept. Philosophy of Science, 44, 542–573, 542.
²³Thoma, M., Fledderjohann, J., Cox, C., & Kantum Adageba, R. (2021). Biological and social aspects of human infertility: A global perspective. In Oxford research encyclopedia of global public health. https://oxfordre.com/publichealth/view/10.1093/acrefore/9780190632366.
001.0001/acrefore-9780190632366-e-184.

²⁴lbid.

²⁵Powell, R., & Scarffe, E. (2019). 'Rethinking "disease": A fresh diagnosis and a new philosophical treatment. *Journal of Medical Ethics*, 45, 579–588, 581.

²⁶Maung, H. H. (2019). Is infertility a disease and does it matter? *Bioethics*, 33(1), 43–53.

lesbian couples who are not medically infertile might thereby fail to be eligible for access to IVF, even though the nature of their "need" to get treatment is the same: they want to conceive but cannot, for social rather than medical reasons. The framework of social infertility endeavors to take account of such reasons as constituting further legitimate *reasons* for one to access treatment, thereby making it a more inclusive criterion than medical infertility.

Although understanding infertility as socially caused may help us acknowledge obstacles to child-making and child-bearing other than medical barriers, the concept of social infertility also contains some explanatory gaps. First, there is the issue of stigma: in childlessness research, researchers have assumed that certain groups such as single women and lesbians are "childless by default, rather than through choice" and that they "cannot and do not make reproductive choices."27 In this sense, individuals' complex deliberations about their ability or inability to conceive might be missed or neglected due to a kind of wrongful overprescribing of certain groups as destined to be "socially infertile." In other cases, "socially infertile" groups might be trivialized by having their parenting desires be relegated to solutions such as adoption. Of course, the issue is not that adoption is bad; it is that being treated as though one should be ineligible for other avenues for child-bearing open to heterosexual women in healthcare settings, despite having the same "need" for access, is arguably unjust. Lesbian women might be seen as unable to conceive merely because they do not have heterosexual intercourse and thereby not be seen as having an equal interest in receiving something like IVF treatment relative to "physically" infertile people. Further, some might construe social infertility as "either a foreseeable consequence of lifestyle choice, or else a predictable outcome of perhaps unfavorable, but not debilitating or out of the ordinary, life circumstances."28 Even if we get past these stigmatized and valueridden constructions of social infertility, and ensure people understand that social reasons are not secondary to medical reasons for treatment, we still have the issue that understandings of infertility as socially caused do not really get to the heart of why it is a problem for those experiencing it and why that problem warrants fixing via ART.

I would maintain that *both* the traditionally "medical" notion of infertility and the alternatively "social" frame of infertility have limited explanatory power, because neither account on its own motivates the rationale for ART treatment in a satisfactory fashion. Both accounts are either too underinclusive or too vague for the task at hand. Medical infertility on its own is neither necessary nor sufficient to warrant ART treatment; there are nonmedical reasons that can warrant ART treatment, and besides, not everybody who is medically infertile wants or even needs ART to continue to have a decent life. On the other hand, social infertility on its own is also neither

necessary nor sufficient to warrant ART treatment; the need for ART is obviously not always social, and being socially infertile does not by itself imply that further action is a matter of necessity anyway. The underarticulated factor that is doing much of the moral work in relation to the warrant for ART, I think, has to do with the way we view certain pathologized experiences around "infertility." That is, the further reason we have to think that agents should get ART treatment is because many people experience their involuntary childlessness as a bad or undesirable thing and because we think that ART treatment (given its availability and so on) is surely a type of intervention, which has potential to remedy that. This is what can make sense of the fact that ART seems to serve a true treatment purpose for many people-what is being remedied is not simply a neutral physiological condition or a social circumstance, but something like the significantly negative feelings and thwarted procreative desires experienced by those who cannot conceive unassisted, in a world that offers many options to counter such experiences via ART.

We might perhaps be tempted to resolve the issue by just adding up both physical and social reasons people are unable to conceivethis is precisely how the debates about medical and social infertility got started, after all. Both medical and social infertility, we might say, are legitimate grounds to grant people access to assisted reproductive technologies like IVF. We should therefore continue to use the term "infertility" in the context of ART access, but in a more inclusive fashion. While this is a better alternative than having divergent or competing kinds of "infertility" clash against each other, I think we can still take this thought one step further and abandon the need to accumulate discordant accounts of "infertility" as outlining eligibility conditions for IVF in the first place. In the next section, I argue that we should take guidance from interactionist and ecological models of disability instead, which can contextualize and give a unified account of when exactly a certain kind of inability to conceive-involuntary childlessness-should be seen as a problem worthy of treatment.

3 | INTERACTIONIST AND ECOLOGICAL APPROACHES TO DISABILITY

Let us return to my account of involuntary childlessness, which I had initially framed as a specific type of childlessness experience affecting *prospective* aspiring parents who have not yet had success in having children of their own due to seemingly insurmountable barriers or obstacles, who experience negative feelings as a result, *and* for whom it makes sense to remedy their circumstances using ART. This view advances a narrow enough account of involuntary childlessness to hopefully exclude most irrelevant cases but include all those who have a legitimate interest in accessing ART.

As it stands, my account could already easily include both those who have "medical" or "social" reasons for their inability to conceive—to an extent. Someone who struggles physiologically to conceive naturally (i.e., "medically infertile") but still wishes to have biogenetically related children could count as involuntarily childless in the relevant sense. The same applies to same-sex partners (i.e., "socially

²⁷Clarke, V., Hayfield, N., Ellis, S. J., & Terry, G. (2018). Lived experiences of childfree lesbians in the united Kingdom: A qualitative exploration. *Journal of Family Issues*, 39(18), 4133–4155.

²⁸Parliament of Australia. Is it medically legitimate to provide assisted reproductive treatments to fertile lesbians and single women? (2021). https://www.aph.gov.au/About_ Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp0001/01RP23# prop1



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infertile") without children, who for reasons of their sexual orientation will not conceive via intercourse. However, not all cases of "involuntary childlessness" are the same or in need of the same kind of remedy. For example, very young adults who are simply impatient to have children, much older individuals who regret never having had children, people who regret giving up children for adoption, people who experienced miscarriages, stillbirth, early infant loss, and so on are excluded on my definition, because they do not necessarily constitute the standard kinds of cases we are interested in for the context of ART access and usage. There might well be hard cases and gray areas within this broad spectrum of those who are "involuntarily childless" and who have an interest in ART, of course, but my aim is to try and include mainly those for whom the reasons to make ART provisions emerge as the strongest.

To delineate between cases and to figure out who of the broadly involuntarily childless group it makes sense to grant ART access, then, we must dig deeper. As I hinted at in the previous section, there is a certain pathologized experience of being involuntarily childless, rather than just medical or social infertility, that seems to be doing much of the moral work in constructing the intuition that many cases of involuntary childlessness warrant ART access. But a further step is needed to explain why some pathologized involuntary childless experience would legitimate ART access, whereas other kinds of involuntary childless experiences might not. I believe insights from discussions about interactionist and ecological models of disability are key to illustrate and contextualize why certain people's experiences of suffering from involuntarily childlessness are disabling in ways that ought to qualify them for access to ART interventions. This will then make coherent my proposal to make involuntary childlessness of a certain sort replace the rather exclusionary notions of "infertility" as the relevant eligibility criterion for inclusive access to ART.

I should emphasize here that I do not pursue the more traditional models of disability for my purposes, as they have been subject to the same kinds of critique as medical and social infertility. Just as medical infertility treats infertility to be a physical disease, the biomedical formulation of disability analogously conflates the term "disability" with some individual bodily deficiency or abnormality. Proponents of a social view of disability, on the other hand, "insist the importance of a physical difference lies solely in discriminatory social reaction to or ignorance of the effects of that difference."29 However, these social models have been criticized for "...[amputating] important dimensions of disabled people's lives,"30 which involve not only their social discrimination because of their negatively perceived bodily differences, but also experiences of their own embodied impairment. For example, it may overlook those with impairments that involve "fatigue, pain, depression, or chronic illness"; one may want to both overcome the discrimination and stigmatization that oppress people

³¹Goering, S. (2015). Rethinking disability: The social model of disability and chronic disease. Current Reviews in Musculoskeletal Medicine, 8, 134-138,

with disabilities, and to "remove or address the troubling accompaniments of their impairments, through medical or other means."31

As such, if "subjective experiences of the body emerge in the interplay between physical and cultural interaction,"32 it would not do to only denote impairments in reproductive functioning as telling the full story of something like "infertility," the latter of which as we have already seen in this paper is loaded with multitudinous meanings and experiences. Nor would it be adequate to only try and capture the purely social barriers involuntarily childless groups face when endeavoring to access interventions like IVF, as we require a bit of context as to why encountering such barriers should be thought to be bad or unjust for that particular individual. This is why I would contend that not all disability frameworks that have been put forward will be productive for the discussion at hand. We require a framework that can capture a fuller story of involuntary childlessness as a phenomenon-one which can target how and why some such experiences warrant rectification (i.e., "treatment"). To this end, more recent perspectives such as interactionist or ecological accounts are helpful as an alternative guideline to construct justly inclusive eligibility criteria for access to interventions like IVF. I now call attention to these perspectives because they offer a more complex, nonmonolithic understanding of disability, which does not consider the individual, their relationship to others, and their environment in isolation, but as concurrently constitutive of their first-personal disability experience.

The interactionist-type model "hold[s] that personal impairments and social factors are both necessary and jointly sufficient for producing the limitations which are connected to the experience of disability."33 Although this is more nuanced than the purely biomedical or social models of disability, advocates of a more ecological-type model would also add here that reference to the environment is also necessary to give context to such interactions. According to this latter framework, "environments of reference should be incorporated into the characterization of a specific disability."34 Something like the ecological account can establish that a disability is not merely caused by interactions of the biomedical and social factors, but also explain how disabilities are constituted in the agent's first-personal perspective given the environments they are embedded in, and why attending to them would matter from a social policy perspective.

As Nathan and Brown say, "We currently live in a society where reading, traveling, and being joyful happen to be desirable and achievable by humans. In contrast, having perfect pitch...does not make a comparable difference."35 It is in this kind of context that we can identify what states of being (e.g., blindness) might call for social

³²Coleman-Fountain, E., & McLaughlin, J. (2013). The interactions of disability and impairment, Social Theory & Health, 11,133-150,

³³Nathan, M. J., & Brown, J. M. (2018). An ecological approach to modelling disability. Bioethics, 32, 593-601.

³⁴lbid.

³⁵ Ibid.

²⁹Koch, T. (2001). Disability and difference: Balancing social and physical constructions. Journal of Medical Ethics, 27, 370-376.

³⁰Beaudry, J. (2016). Beyond (models of) disability? The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine, 41, 210-228.

and ethical responses. In the case of involuntary childlessness, we might understand the social demand for procreation, 36 the individual desire and preference to have children, 37 and the despondence and stress³⁸ that may accompany the individual inability to conceive, by reference to the world as we know it and the existential importance and value it places on the ability to bear children in relation to human survival and flourishing. Child-bearing is both individually and socially perceived to many as a source of great meaning and life-enrichment, 39 a personally transformative experience, 40 and so forth—they are norms in our society. As was stated in the UN's World Population Plan of Action, "All couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so..." This presumption of the procreative "right" in itself is indicative of the values held within the world we live in: it is one in which procreation is at least generally considered part and parcel of a good life, without which, it is implied, one might well be deprived of some good.

Although the values of people's lives are obviously not *reducible* to the matter of whether they are able to procreate, their inability or lack can certainly manifest as disvalues in the context of this social environment. Those who supposedly deviate from this universal procreative norm, like single people and homosexual people, are often punished "by a variety of socioeconomic and psychological sanctions."

The *inability* to bear children of one's own—for whatever reason—could be experienced as a disvalue both socially and at the individual level. This can be treated as a starting point for how involuntary childlessness could be experienced as a type of disability, and consequently why we would consider certain individuals' wishes to have children as warrant enough to provide access to ARTs.

Hopefully, it is now clear that the state of being involuntarily childless is not simply a neutral state of being—it is a highly *value-laden* experience that is mediated in diverse ways, in accordance with public narratives and norms as well as the more private internalizations and experiences of those norms. On such approaches, we can recognize that each person has a *unique* profile of "capabilities and limitations"⁴² and that disability can be a kind of first-person

self-experience⁴³ constituted at the intersection of that person's "profile of strengths and limitations *and* the demands of the environments in which he or she lives, learns, works, plays, and so forth." Perhaps some of us who personally do not value having children of our own will be less affected by the force of these values, but for others, the issue may very well be internalized as a central part of one's life story.

Let us consider the fact that, for example, there are gender differences in how involuntary childlessness is constructed and experienced-which also perhaps goes some way in explaining why women especially are seen as affected by ART options. Since medical infertility is highly researched, we can draw plenty of cases there: infertility is stigmatizing for couples, 45 but many report that women are more likely than men to experience negative experiences with their infertility in physical, emotional, and existential domains. 46 And among women, those who feel social pressure to become mothers would also experience such infertility in a more stressful way than those who do not.⁴⁷ Of course, it is also true that female factor medical infertility tends to be researched much more than male factors, which are often "overlooked in the specific pathological conditions,"48 and similarly the emotional impacts of infertility have largely been studied by reference to the "female" partner. But perhaps this very asymmetry is indicative of the ways that society pressures and focuses primarily on women, and their (in) ability to have children, differently than toward men. By and large, the stigma surrounding infertility disproportionately affects women, as it "strikes at the societal expectation that women are innately born to bear children and become loving mothers"⁴⁹—deviations from this demand can engender negative experiences both for women who are unable, or even unwilling, to get pregnant and have children. Notwithstanding the various hierarchies projected on women (e.g., disadvantaged women might not be encouraged to reproduce), society still advances overwhelmingly pronatalist narratives that conflate womanhood with motherhood-Diana Tietjens Meyers calls this systematic idolatry of motherhood as essential to a woman's identity as matrigyno-idolatry. 50

³⁶Berger, R., Paul, M. S., & Henshaw, L. A. (2013). Women's experience of infertility: A multisystemic perspective. *Journal of International Women's Studies*, 14(1), 54–68, 55.

³⁷van Balen, F., & Trimbos-Kemper, T. C. M. (1995). Involuntarily childless couples: Their desire to have children and their motives. *Journal of Psychosomatic Obstetrics & Gynecology*, 16(3), 137–144, 138.

³⁸Simionescu, G., Doroftei, B., Maftei, R., Obreja, B., Anton, E., Grab, D., Ilea, C., & Anton, C. (2020). The complex relationship between infertility and psychological distress (Review). Experimental and Therapeutic Medicine, 21(4), 306.

³⁹Gato, J., Leal, D., Coimbra, S., & Tasker, F. (2020). Anticipating parenthood among lesbian, gay, bisexual, and heterosexual young adults without children in Portugal: Predictors and profiles. Frontiers in Psychology, 11, 1058.

⁴⁰Paul, L. A. (2015). What you can't expect when you're expecting. Res Philosophica, 92(2), 149–170.

⁴¹Gimenez, M. E. (Ed.). (2018). Chapter 7: Feminism, pronatalism, and motherhood. In Marx, women, and capitalist social reproduction (p. 160). Brill.

⁴²Shogren, K. A., Michael, L. W., Jonathan, M., & Peter, B. (Eds.). (2018). Social-ecological models of disability. In *Supported decision-making: Theory, research, and practice to enhance self-determination and quality of life*. Cambridge Disability Law and Policy Series (pp. 29–45). Cambridge University Press. 32.

 $^{^{43}}$ Toro, J., Kiverstein, J., & Rietveld, E. (2020). The ecological-enactive model of disability: Why disability does not entail pathological embodiment. *Frontiers in Psychology*, 11, 1162, 12.

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⁴⁵Slade, P., O'Neill, C., Simpson, A. J., & Lashen, H. (2007). The relationship between perceived stigma, disclosure patterns, support and distress in new attendees at an infertility clinic. *Human Reproduction*, 22(8), 2309–2317, 2310.

⁴⁶Li, Y. Y., Lai, H. W., & Alice, Y. L. (2015). Gender differences in experiences with and adjustments to infertility: A literature review. *International Journal of Nursing Studies*, 52(10), 1640–1652.

⁴⁷Miles, L. M., Keitel, M., Jackson, M., Harris, A., & Licciardi, F. (2009). Predictors of distress in women being treated for infertility. *Journal of Reproductive and Infant Psychology*, 27(3), 238–257, 251.

⁴⁸Gullo, G., Cucinella, G., Perino, A., Gullo, D., Segreto, D., Laganà, A. S., Buzzaccarini, G., Donarelli, Z., Marino, A., Allegra, A., Maranto, M., Carosso, A. R., Garofalo, P., & Tomaiuolo, R. (2021). The gender gap in the diagnostic-therapeutic journey of the infertile couple. *International Journal of Environmental Research and Public Health*, 18, 6184.

⁴⁹https://reproductiverights.org/wp-content/uploads/2020/02/64785006_Infertility-and-IVF-Access-in-the-U.S.-Fact-Sheet_2.5.2020_Final.pdf

⁵⁰Meyers, D. T. (Ed.). (2003). The rush to motherhood: Pronatalist discourse and women's agency. In *Gender in the mirror: Cultural imagery and women's agency* (online ed., p. 48). Oxford Academic (Original work published 2002).

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Further, there is also the natural inequality between the male and female reproductive system, which places a greater time-limited pressure on cisgender women to conceive within a specific timeframe. It is almost no wonder that involuntary childlessnessespecially for such women-can be experienced in a disabling way. Single women are not necessarily medically infertile. Yet they may feel that their window of opportunities to conceive is limited both because of their biological age and because they have socially struggled to find a partner with whom to try and conceive, on top of feeling the social importance placed on motherhood (specifically, biogenetic, and gestational motherhood). Understandably, then, we can make sense of why some members of such a group might actually suffer and feel stunted for their involuntary childlessness. The case to be made here for the warrant to ART access is interesting, however, because it seems that many single women feeling stunted by involuntary childlessness could opt for intrauterine insemination using a sperm donor, which is in some senses a more straightforward process if they are themselves able to use their own eggs and to gestate with their own body. This is obviously less costly-both financially and in terms of imposing third-party burdens—than, say, the case of single men in a similar predicament or gay partners, both of whom might need an egg donor and a surrogate. It is important to understand, then, that whatever legitimacy lies in people's interest in ART usage must obviously be adjudicated within the space of what is legally and morally possible to negotiate.

This points to both the fact that there can be different *reasons* for experiencing childlessness as a disability, and the fact that there may be variable answers to the question of whether ART is warranted. For example, women of child-bearing age who do have partners with whom they can potentially have children, but feel as though they have no choice but to delay childbearing due to negative anticipation of pregnancy-based discrimination at their workplace, can also experience involuntary childlessness in a disabling way. Some such women might indeed respond to such negative anticipation by partaking in ART-related practices such as social egg freezing⁵¹ (preservation of oocytes for "nonmedical" reasons) perhaps in the hopes of buying themselves more time to eventually have children. While many might advocate for such options for women in accordance with the social acceptability and availability of social egg freezing, we might at the same time question the sense of invoking ART treatment in cases like these. This is because we might see alternative social provisions as the more urgent way to address this type of involuntary childlessness: ameliorating pregnancy-related discrimination in the workplace, ensuring fair and generous maternity leave/parental leave schemes, and so on, can comprise sensible solutions that do not require the individual to have to resort to ART.

In the context of a world wherein child-making and child-bearing is by and large existentially important and enshrined in the cultural language—what involuntarily childless people who are candidates for

ART treatment share is that their childlessness functions as a kind of disability, which is constituted by unique constellations of multitudinous factors ranging from physiological conditions, environmental barriers, social stigma, to psychological stress. They may all have different reasons for their respective inability to bear children, but all equally do experience that inability as a disability—to varying degrees. Of course, the role of ART as a potential remedy can still vary even between these relevant groups, and depending on other solutions we might think appropriate (e.g., policy change), the value of ART as a type of treatment is not entirely fixed by the fact that people can experience involuntary childlessness in disabling ways. With this in mind, however, using the insights of the interactionist and ecological models as a guiding baseline appears to be a nuanced way to support a pluralistic and inclusive eligibility criterion for treatment options like IVF and other ART interventions.

I should clarify that I do not mean to say that the interactionist or ecological framework is without criticism. But for the task at handconceptualizing a unified and inclusive eligibility criterion that serves as a plausible explanatory basis for ART access-I think it should suffice to take guidance from the tenets of these frameworks to facilitate reflection about why involuntary childlessness may warrant support. Disability experiences are mediated by "how we develop personally in accordance with these limits,"52 and thus can be a more nuanced way to normatively target treatment needs. It is able to account for the complex reasons why some phenomenon or experience can be construed as being limiting or a problem for somebody's overall health and well-being. The interactionist and ecologically inspired view of disability can recognize that the experience of childlessness is not reducible to any fault in the person or on one specific physical or social cause, barrier, or problem. It is instead better understood as being constituted by complex interactions between the individual and environment, which underlie the person's negative experience of it.

One might still object here, however, that focusing on pathologizing thwarted parenting desires is more problematic than disabling, in the sense that the desire to procreate itself may not justify any normative concessions in the healthcare context. As Seppe Segers et al. point out, for example, thwarted desire for genetic parenthood and the subjectively felt harm that accompanies this "stops short of justifying why there would be a moral duty to help satisfy that particular desire."53 I am in complete agreement with this point-my task does not resolve morally complex questions about what demands can accompany the principle of inclusivity of access, given that resources may be scarce or involve deliberation of competing moral values. Nevertheless, by detaching first and foremost from the more traditionally medicalized view of infertility, which is practically synonymous with ART, as well as the term

⁵¹Petropanagos, A., Cattapan, A., Baylis, F., & Leader, A. (2015). Social egg freezing: Risk, benefits and other considerations. CMAJ: Canadian Medical Association Journal, 187(9). 666-669, 666,

⁵²Martiny, K. M. (2015). How to develop a phenomenological model of disability. *Medicine*, Health Care and Philosophy, 18, 553-565.

⁵³Segers, S., Pennings, G., & Mertes, H. (2019). Getting what you desire: The normative significance of genetic relatedness in parent-child relationships. Medicine, Health Care and Philosophy, 22(3), 487-95.

"infertility" altogether, I believe I have already set up my view to be open to diverse ways to respond to involuntary childlessness. Scholars have already pointed out, for example, that "technomedical approaches generally do not solve social problems because they do not address the root of the issue" and that medicine "is not the best tool to cure oppressive power systems."54 In line with such considerations, my recognition of involuntary childlessness as a potential type of contextualized disability experience is entirely compatible with campaigns to, for instance, move toward deemphasizing the importance of having children and to shift cultural values about procreation so that less people experience involuntary childlessness as a disability-be it through amelioration of childlessness stigma, less emphasis placed on motherhood as a precondition of full womanhood, and so forth. Furthermore, on my account, solutions must be various, and not necessarily only ones that-for instance-result in a live birth of a genetically related child. There is no reason why better access and advocacy for adoption could not also be part of appropriate interventions to address involuntary childlessness worthy of rectification, or even a more psychotherapeutic intervention like "infertility counseling" to manage the distressing emotions that might accompany the experience.55

4 | CONCLUSION

Overall, my task in this paper was to reflect on how we might best settle on more inclusive eligibility criteria for access to assisted reproductive technologies like IVF, given that such technologies exist, are available to use, yet are unevenly distributed between various involuntarily childless groups whose experiences of involuntary childlessness are equally disabling. I claimed that the medical and social framings of "infertility" were too exclusive and discordant to truly capture the potential basis of the need for ART intervention for diverse groups of involuntarily childless people. Instead, I took insights from interactionist and ecological approaches to disability as a way to understand how the embodied

and intersecting interactions between body, person, and the environment in handling thwarted parenting desires can become constitutive of a negative and disabling experience that in many cases warrants consideration of ART usage. Involuntary childlessness understood as a type of context-dependent disability would thereby serve as a better ethical basis for ensuring that more relevant groups can be inclusively eligible for access to IVF. Still, I stopped short of endorsing assisted reproductive technologies in general as the only way of counteracting such childlessness over and above other remedial possibilities that could help address the suffering generated by involuntarily childless experiences.

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CONFLICT OF INTEREST STATEMENT

The author declares no conflict of interest.

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⁵⁴Campo-Engelstein, L. (2020). Reproductive technologies are not the cure for social problems. *Journal of Medical Ethics*, 46, 85–86.

⁵⁵Segers, S., et al., op. cit. note 53, p. 493.