

SEX AND GENDER

Pervasive in the ectogestation literature is the claim that artificial amnion and placenta technologies (AAPT) has the capacity to ‘free women of the tyranny of gestation.’¹ Takala suggests that ectogestation ‘will finally make true equality between humans possible.’² Kendal claims that women’s equality will always be limited until pregnancy becomes a reproductive choice, rather than a fact of reproducing.³ Gestation outside of the body, and by similar logic presumably also practices that allow pregnancies to be facilitated by bodies assigned male at birth (AMAB), would or could, according to some scholars, help secure gender equality by ‘de-gendering gestation’⁴ or, at least, go some way towards securing this. This argument is based on several premises. Here I put them in their strongest forms:

- (P1) Gestation sustained by pregnancy is undertaken almost exclusively by women⁵/and exclusively by people AFAB;
- (P2) ‘[G]ender-based oppression is connected to female biological functioning,’ specifically, the role of female physiology in procreation;⁶
- (P3) Technologies enabling gestation have the capacity to challenge the seemingly ‘immutable fact of reproduction from the beginning of time: that a fetus must gestate in a woman’s body’;⁷

¹ Gregory Pence, ‘What’s so Good about Natural Motherhood? (In Praise of Unnatural Gestation)’ in Scott Gelfand and John Shook (eds), *Ectogenesis: Artificial Womb Technology and the Future of Human Reproduction* (Rodopi 2006) 77–88, 83.

² Tuija Takala, ‘Human Before Sex? Ectogenesis as a Way to Equality?’ in Frida Simonstein (ed), *Reprogen-Ethics and the Future of Gender* (Springer 2009) 187–95, 188.

³ Evie Kendal, *Equal Opportunity and the Case for State Sponsored Ectogenesis* (Palgrave 2015) 8.

⁴ Frida Simonstein, ‘Artificial Reproductive Technologies and the Advent of the Artificial Womb’ in Frida Simonstein (ed), *Reprogen-Ethics and the Future of Gender* (Springer 2009) 177–86; Anna Smajdor, ‘The Moral Imperative for Ectogenesis’ (2007) 16 *Cambridge Quarterly for Healthcare Ethics* 336–45; Kathryn MacKay, ‘The “Tyranny of Reproduction”: Could Ectogenesis Further Women’s Liberation?’ (2020) 34 *Bioethics* 346–53.

⁵ Smajdor, ‘The Moral Imperative for Ectogenesis’ (n 4) 337.

⁶ MacKay (n 4) 347; Peter Singer and Deane Wells, ‘Ectogenesis’ in Scott Gelfand and John Shook (eds), *Ectogenesis: Artificial Womb Technology and the Future of Human Reproduction* (Rodopi 2006) 9–26, 14.

⁷ Jennifer Bard, ‘Immaculate Gestation? How Will Ectogenesis Change Current Paradigms of Social Relationships and Values?’ in Scott Gelfand and John Shook (eds), *Ectogenesis: Artificial Womb Technology and the Future of Human Reproduction* (Rodopi 2006) 149–58, 149.

- (P4) Where pregnancy can be facilitated by gestation sustained in all bodies or outside of bodies altogether, a fundamental source of gender-based inequality can be eliminated. This is a *necessary (though not sufficient)* condition for gender emancipation.

The argument concludes that where gestation is no longer exclusively ‘a woman’s job’,⁸ gender equality becomes possible.⁹ In this chapter, I illustrate that this argument of gender equality resulting from novel technologies enabling gestation, or even of being necessary if not sufficient for emancipation, is misguided and reductive.

I place emphasis on the fact that it is not *women* who exclusively bear the burdens of pregnancy but *people with physiology assigned female at birth* (AFAB). Consequently, the argument ought to be reframed as the ‘unsexing’ of—rather than the ‘de-gendering’ of—gestation as a means for emancipation. Indeed, many commentators who make this argument would accept this suggestion (eg it is people AFAB—not exclusively women, but usually women—who gestate). I still take the time to show how the current account of ‘de-gendering’ gestation as it is consistently reiterated is harmful because this renders invisible trans and nonbinary procreation. Second, citing female biological functioning as the root cause of inequality in (P2) inappropriately locates inequality in certain bodies and their capacities, rather than in the social response to those bodies/capacities.¹⁰ Third, both (P3) and (P4) are unhelpfully acontextual and overstate the capacities of AAPT and uterus transplantation (UTx), which are much narrower than often described when considered in social and legal context. No defender of this argument has yet been able to provide a persuasive account of how changing the locus of gestation challenges normative pronatalist pressures on women and people AFAB. Consequently, removing gestation from the body/exclusively bodies AFAB does not directly result in equality for people AFAB and/or sex and gender minorities. Moreover, to claim that these technologies are necessary for equality is also problematic.

Despite my contention that arguments about novel technologies enabling gestation resulting in gender and sex equality overstate the possibilities, I do believe that AAPT and UTx are potentially equality-*enhancing*, morally

⁸ Julien Murphy, ‘Is Pregnancy Necessary: Feminist Concerns about Ectogenesis’ in Scott Gelfand and John Shook (eds), *Ectogenesis: Artificial Womb Technology and the Future of Human Reproduction* (Rodopi 2006) 27–46, 31.

⁹ Takala (n 2); Singer and Wells (n 6) 14.

¹⁰ Claire Horn and Elizabeth Chloe Romanis, ‘Establishing Boundaries for Speculation about Artificial Wombs, Ectogenesis, Gender, and the Gestating Body’ in Chris Dietz and others (eds), *A Jurisprudence of the Body* (Palgrave 2020) 227–54.

desirable, and will be of value to people AFAB and to sex and gender minorities.¹¹ There are important mechanisms in which these technologies and practices can contribute to the liberation of marginalized groups, particularly LGBTQ+ people¹² and people AFAB. My object here is to show, however, that sex or gender equality cannot and does not result directly from the availability of these technologies nor should we take it that introduction of these technologies is *necessary* for emancipation. To enable the realization of any equality-enhancing potential from UTx and AAPT, significant social and legal reform is necessary.

Gender, Sex, and Pregnancy

In her case for ectogestation as a ‘moral imperative’, Smajdor describes the physical necessity that ‘[b]abies must be gestated in women’s bodies’ means that ‘it is *women* who take on the risks, whereas society in general profits from these sacrifices.’¹³ Sander-Staudt notes the relevance of gender in understanding the impact of ectogestation ‘because it mimics the biological practice of gestating a child, an ability that currently *only women* possess.’¹⁴ Ferreira argues that ectogenesis is a ‘part of the solution’ to gender inequality ‘as an impetus for driving change and raising awareness of the fact that since *only women can get pregnant it can represent a source of profound inequality*’.¹⁵ Some bioethicists specifically ascribe the benefit of ectogestation to its capacity to ‘de-gender’ gestation by removing the physical demands of women’s bodies that the process of human procreation has naturally required: pregnancy and birth.¹⁶ The same logic could apply to UTx. The development of reproductive practices that enable men to undertake the generative work of pregnancy and birthing means that UTx would surely be recognized as important by those who defend ectogestation for its capacities to ‘de-gender’ gestation.

¹¹ Elizabeth Chloe Romanis, ‘The Equality-Enhancing Potential of Novel Forms of Assisted Gestation: Perspectives of Reproductive Rights Advocates’ (2023) 37 *Bioethics* 637–46.

¹² Laura Kimberley, Megan Sutter, and Gwendolyn Quinn, ‘Equitable Access to Ectogenesis for Sexual and Gender Minorities’ (2020) 34 *Bioethics* 338–45.

¹³ Smajdor, ‘The Moral Imperative for Ectogenesis’ (n 4) 336.

¹⁴ Maureen Sander-Staudt, ‘Of Machine Born? A Feminist Assessment of Ectogenesis and Artificial Wombs’ in Scott Gelfand and John Shook, *Ectogenesis: Artificial Womb Technology and the Future of Human Reproduction* (Rodopi, New York 2006) 109–28, 111 (emphasis added).

¹⁵ Aline Ferreira, ‘The (Un)Ethical Womb: The Promises and Perils of Artificial Gestation’ (2022) 19 *Journal of Bioethical Inquiry* 381–94, 386 (emphasis added).

¹⁶ MacKay (n 4); Smajdor, ‘The Moral Imperative for Ectogenesis’ (n 4).

Because of the focus on equality for women, the project is clearly described as one of 'de-gendering' throughout the literature. Sander-Staudt explains how ectogestation is 'likely to render gender *less relevant* to reproduction or parenting'.¹⁷ MacKay writes that gestation *extra uterum* is powerfully 'disruptive to the biological foundation of women's oppression because it challenges the "normal view" of gender categories'.¹⁸ Such accounts, however, are implicitly based on an oversimplified, binary understanding of both sex and gender. They assume that there are exclusively two, clearly delineated, classifications of person: 'women' (who have the physiological capacity for gestation) and 'men' (who lack the physical capacity for gestation).¹⁹ There is an assumption that there is a binary conception of gender (one can be either a man or a woman) and a binary concept of sex (one can biologically be either male or female, and this is directly related to reproductive capacities), and that these categories neatly map onto each other (women are female, men are male), but are also readily distinguishable (women/females are not men/males and vice versa).

Biology and anthropology, informed by human experience, show us both that male/female and man/woman are not exclusive gender or sex categories, and that these two categories (male/female, man/woman) are not clearly distinguishable from each other nor are they immutable.²⁰ There has been much exploration of the ways in which gender is socially constructed,²¹ and increasingly there is recognition that the same is true of sex.²² There is no clear way to delineate what physiological or biological features make a body female or male: '[a] body's sex is simply too complex. There is no either/or. Rather, there are shades of difference'.²³ Looking at any or all of the chromosomes, genitalia, or hormone production within a body cannot clearly delineate that it is either male or female. There are some traits, that for social reasons, we have identified as being indicative of femaleness or maleness but how these biological traits or features came to be grouped and to be labelled as 'male' or 'female' is a social interpretation. Moreover, what features were understood as being 'male' or being 'female' are not wholly stable constructions—they can shift depending on context.

¹⁷ Sander-Staudt (n 14) 111 (emphasis added).

¹⁸ MacKay (n 4) 347.

¹⁹ Horn and Romanis (n 10) 242.

²⁰ Judith Butler, *Gender Trouble* (Routledge 1990); Anne Fausto-Sterling, *Myths of Gender: Biological Theories about Women and Men* (Basic Books 1993); Anne Fausto-Sterling, *Sexing the Body: Gender Politics and the Construction of Sexuality* (Basic Books 2000).

²¹ Kate Millett, *Sexual Politics* (Granada Publishing Ltd 1971); Sally Haslanger, 'Gender and Race: (What) Are They? (What) Do We Want Them to Be?' (2002) 34 *Noûs* 31–55.

²² Butler (n 20); Fausto-Sterling (n 20).

²³ Fausto-Sterling (n 20).

Around two per cent of the population are born intersex (having some variation from the biotypically male or female—whether chromosomally, ambiguous or absent genitalia, or a hormone difference).²⁴ Blackless and others conclude that this, in conjunction with an understanding with the deviation in characteristics assumed male and female in different cultures, leads to the conclusion that ‘developmental biology suggests that a belief in absolute sexual dimorphism is wrong. Instead, two overlapping bellshaped curves can be used to conceptualize sexual variation across the population.’²⁵ That a binary conception of sex is excessively simplistic is a conclusion equally supported by a body of scientific literature,²⁶ as by the work of gender theorists on the relationship between biological features and culture. Some theorists have argued that ‘sex’ is as culturally constructed as gender, because how biological features of difference (whichever are reified as determinative) are interpreted is a matter of cultural value.²⁷

Despite the clear complications in separating ‘female’ from ‘male’ based on biological features (or the claim that some features clearly are only male or female), one feature that a biological essentialist approach might insist can differentiate is the capacity to become pregnant. This is a claim that appears in much early feminist jurisprudence that attempts to explain how the androcentrism of law fails women. West describes women being fundamentally different because of their innate connectedness to others (in contrast to the atomistic understanding of existence propagated by law), using, in part, the example of pregnancy.²⁸ The understanding of the capacity to become pregnant as the defining feature of being female is not as intuitive as it might appear, however, given the many people born with physiology AFAB who struggle with infertility, or who are born without a uterus. As Baer explains, an account like that of West is ‘simplistic, exclusionary and illogical’. While the experiences West mentions are unique to people AFAB, they are not common to all people AFAB.²⁹ It is thus clear that a capacity to become pregnant is not a feature that can be used to identify a person as having female physiology. However, this is a capacity that, given the current confines of human reproductive biology, is almost exclusively limited to people with biotypical physiology AFAB. Thus,

²⁴ Melanie Blackless and others, ‘How Sexually Dimorphic Are We? Review and Synthesis’ (2000) 12 *American Journal of Human Biology* 151–66.

²⁵ *ibid* 163.

²⁶ *ibid*; Claire Ainsworth, ‘Sex Redefined’ (2015) 518 *Nature* 288–91.

²⁷ Butler (n 20) 9.

²⁸ See Robin West, ‘Jurisprudence and Gender’ (1988) 55 *The University of Chicago Law Review* 1–72.

²⁹ Judith Baer, ‘Feminist Theory and Law’ in Robert Goodin (ed) *The Oxford Handbook of Political Science* (OUP 2011) 305–16, 309.

while sex may not be fixed (persons can have hormone treatment and/or genital reassignment), until uterus transplantation becomes more widely available,³⁰ the capacity to sustain a gestation remains largely limited by biological constraints—that is the having of a working uterus. Pregnancy sustaining gestation is thus an impossibility for people born without a functioning uterus—whether AMAB, AFAB, or intersex. The capacity to become pregnant is not a feature that can be used to identify a person as female.³¹ However, this is a capacity that, given the current confines of human procreative biology, is almost exclusively limited to people with biotypical physiology AFAB. Thus, while sex may not be fixed (persons can have hormone treatment and/or genital reassignment), until UTx becomes more widely available, the capacity to facilitate gestation with bodily work remains limited as described above. The salient point here is that proposals of ending or mitigating gender-based oppression with technologies redistributing gestational work to persons of all sexes, or to machines, rely on binary accounts of sex and gender that are overly simplistic. These accounts neglect the existence of men and nonbinary people who undertake gestation and birthing. It is people AFAB who *can* have the physiology to become pregnant, and this encompasses a wide diversity of people in terms of both gender and sex. Neglecting this diversity in speculative literature about novel technologies is symptomatic of a broader problem. Generally, in the public consciousness there is a conceptual integration of gender and gestation (facilitated by pregnancy). Historically, it has been exclusively people AFAB, who either were identified as women or were treated as such, that undertook gestational work (whether to reproduce themselves or acting as surrogates). It remains the case that it is primarily people AFAB that also identify as women who sustain gestation via pregnancy. Pervasive cis-heteronormative understandings and ideals surrounding procreation that ‘inextricably link femininity with pregnancy’ have thus come to dominate the social perception of pregnancy to the degree that the experiences and needs of LGBTQ+ people, particularly gender queer people, are simply rendered invisible.³² Trans men and nonbinary people describe difficulties in accessing pregnancy and birthing care because of (a fear of) transphobia,³³ and even report feeling pressure to present as women to conform to the expectations of healthcare providers.³⁴

³⁰ See limitations on this possibility in Chapter 3.

³¹ See Chapter 2.

³² Olivia Fischer, ‘Non-binary Reproduction: Stories of Conception, Pregnancy, and Birth’ (2021) 22 *International Journal of Transgender Health* 77–88, 81.

³³ *ibid* 81.

³⁴ *ibid*.

Social scripts that have come to shape, direct, and even dictate how pregnant people are thought of and interacted with are so fixated on gender that space is not made for alternative realities.

The law adds authoritative and expressive force to these understandings of pregnancy. In many jurisdictions, the language used to describe pregnancy and parenthood resulting from gestation remains both gendered and sexed.³⁵ In England and Wales, gender-neutral drafting in law-making has been in place as standard practice since 2007.³⁶ Despite this, procreation and pregnancy are areas where gendered terms remain commonplace and are used to perpetuate conceptions of pregnancy as a gendered activity. Significantly, the Human Fertilisation and Embryology Acts 1990 and 2008 make no space for male or nonbinary pregnancy when it defines a mother as '[t]he *woman* who is carrying or has carried a child as a result of the placing in her of an embryo or of sperm and eggs'.³⁷ Furthermore, equality laws in multiple jurisdictions, for example, the EU³⁸ frame discrimination against pregnant persons as discrimination on the basis of sex, rather than as a form of discrimination in its own right, which legally entrenches the notion that pregnancy is a sexed activity.

It is, therefore, unsurprising that there is a conceptual failure in much ethico-legal scholarship to properly recognize the 'gender-rupturing potentialities of gestational labour'³⁹ as it is currently performed. When considered seriously, 'pregnant men engender a critical re(conceive)ing of the idea that sex is biologically determined, that pregnancy is necessarily sexed as female, and that one's sex, gender identity and identification as mother/father neatly align'.⁴⁰ However, in practice, male and nonbinary pregnancy is othered, and systematically 'made invisible, pathologized and rendered unrecognized'.⁴¹ Imagining how novel technologies enabling gestation can radically change the oppressive structures surrounding pregnancy and procreation more broadly will be more

³⁵ Elizabeth Chloe Romanis, 'Male and Nonbinary Pregnancy in the Law: Ontic Injustice and/or Invisibilisation' (forthcoming).

³⁶ Drafting Techniques Group of the Office of the Parliamentary Counsel, 'Office of the Parliamentary Counsel: Drafting Guidance' (2020) <<https://assets.publishing.service.gov.uk/media/660407d091a320001a82b06b/2024.03.19.Drafting-guidance.pdf>> accessed 2 November 2022 [2.1].

³⁷ s 33(1).

³⁸ The Charter of Fundamental Rights of the European Union prohibits any discrimination on grounds of sex. This Recast Directive 2006/54/EC, s 23 stipulates 'It is clear from the case-law of the Court of Justice that unfavourable treatment of a woman related to pregnancy or maternity constitutes direct discrimination on grounds of sex. Such treatment should therefore be expressly covered by this Directive'.

³⁹ Rachelle Chadwick, 'Visceral Acts: Gestationality as Feminist Figuration' 48 (2022) Signs 229–55, 237.

⁴⁰ Lara Karaian, 'Pregnant Men: Repronormativity, Critical Trans Theory, and the Re(conceive)ing of Sex and Pregnancy in Law' (2013) 22 Social & Legal Studies 211–30, 212–13.

⁴¹ Chadwick (n 39) 247.

constructive, Horn advocates, if we begin ‘by rejecting binary understandings of human reproductive roles.’⁴²

To return to the main premises of the argument outlined earlier, P1 (‘Gestation sustained by pregnancy is undertaken exclusively by women’) is clearly untrue, since there are people other than women who sustain pregnancies and birth, and there are important reasons to recognize this. This does not, however, mean that the argument fails here. If we adjust the premise to recognize that only people AFAB (who predominantly identify as women) can sustain pregnancies and birth, and if P2, P3, and P4 are also true, then we can still reach the conclusion that gender equality can be facilitated by novel technologies enabling gestation. There are some clear radical implications from the possibility of gestation outside of the constraints of biology; where it can take place as part of people born without a uterus (whether male, female, intersex or other), or outside of the confines of any body. Before exploring some of these implications, it is necessary to interrogate the premise that gender-based oppression is caused by, or connected to, female biological function.

Bodies and Social Oppression

Proponents of the ‘gender equality from removing gestation from bodies AFAB and/or bodies entirely’ argument place the focus of the ‘root’ of inequality in biotypically female reproductive capacities. In articulating their position, MacKay and Singer & Wells both rely considerably on the work of de Beauvoir⁴³ and Firestone,⁴⁴ who advocated that oppression was rooted in female reproductive biology.⁴⁵ On this view: ‘[t]he fundamental part that from the beginning of history doomed woman to domestic work and prevented her taking part in the shaping of the world was her enslavement to the generative function.’⁴⁶ Commentators use such an account to make the claim that if we remove the generative function from the AFAB body, such people are no longer ‘doomed’ by the capacity to become pregnant and facilitate gestation.⁴⁷ There is longstanding debate in the philosophy and gender studies literature about

⁴² Claire Horn, ‘Gender, Gestation and Ectogenesis: Self-determination for Pregnant People Ahead of Artificial Wombs’ (2020) 46 *Journal of Medical Ethics* 787–88, 788.

⁴³ Simone de Beauvoir, *The Second Sex* (C Borde and S Malovany-Chevallier trs, Knopf 1949).

⁴⁴ Shulamith Firestone, *The Dialectic of Sex: The Case for Feminist Revolution* (William Morrow and Company 1970).

⁴⁵ *ibid* 74–75.

⁴⁶ de Beauvoir (n 43) 117.

⁴⁷ *eg* MacKay (n 4).

the appropriateness of this understanding, and I will not reiterate it in depth here for reasons of space. Scholars working on ectogestation/assisted gestation from feminist perspectives, me included, have primarily chosen to focus on the other premises of the argument (P3 and P4). This is largely because even if P2 is true, there are very compelling reasons to believe P3 and P4 are not.

The importance of understanding the account of the primary biological difference as the capacity to facilitate gestation as the only, or even the primary, source of oppression does have historical roots. That people AFAB sustain pregnancies was the principal reason that throughout time led to women/people AFAB becoming a subjugated class; how they came to be understood as the 'other' and as vessels for procreation rather than people.⁴⁸ It is important to consider, however, that physiological differences form *part* of the reason why people are treated in different ways, but physiological differences are often not the principal reason that persons are oppressed or directly discriminated against. Rather, it is the assumption about what physiological differences a person has, and then specifically *the cultural and social assumptions made about their likely behaviour because of those assertions about physiology*, that result in discrimination against individuals.⁴⁹ An employer may be equally likely to fail to promote a person AFAB without a uterus or a trans woman, as they would a person AFAB with a uterus on the basis that the same assumptions are made about their physiology and/or consequently their assumed predicted behaviour. The employer could assume that all these people have the capacity to become pregnant (how would the employer know the exact details of their anatomy and/or associated reproductive capacities?) in combination with the pronatalist assumption that they will want to become a parent through sustaining a pregnancy and birthing. It is not *having* the capacity to become pregnant that makes one a target for workplace discrimination, for example, it is *looking like someone who might*. These assumptions about behaviour still come from the cultural understandings of different physiology and are still subject to considerable social and cultural interpretation.

To focus on 'solving' the capacity to become pregnant (being the physiological difference) as a means of resolving discrimination/oppression against

⁴⁸ I am grateful to Dr Dunja Begović for discussions with me on this point.

⁴⁹ Drouillard makes the case that oppression is not just about physiology—for example, it is not what kind of genitalia individuals possess, but what genitalia they are assumed to possess, that is used by others to 'justify a certain gendered treatment, a treatment that in turn affects how she views herself within a system of social arrangements'. Drouillard relies on the work of Haslanger (n 20) to explain that gender is constructed externally, though notes that there are some aspects of Haslanger's argument that become circular when trying to explain the disentanglement of gender and sex. Jill Drouillard, 'The King was Pregnant: Reproductive Ethics and Transgender Pregnancy' (2021) 14 International Journal of Feminist Approaches to Bioethics 120–40, 124.

people AFAB and women, seemingly may rest in the idea that biological function assigned female is inferior. More likely, proponents of the argument would suggest not that biological function *is* inferior, but it is that it is *seen as* inferior and altering biological function is the best way to overcome that perception. Such a strategy requires all people AFAB to no longer sustain pregnancies, which seems to be asserting that members of a marginalized group must ‘assimilate’ for equality,⁵⁰ but also might lead to discrimination escalating in some circumstances, for example people who opt for pregnancy. I will explore this problem in more detail later in this chapter. There are some parallels to be drawn with disability here. Focusing on eradicating differently able bodies, rather than on the social constraints that mean those bodies different abilities makes them disadvantaged (per the social model of disability),⁵¹ is clearly harmful in the subjugation of differently abled people, the same must be said to be true of people who can sustain pregnancies—this capacity is not something that makes a body less able, it is rather the social constraints placed on the body that should be of concern.⁵²

‘Un-sexing’ Gestation

P3 holds that AAPT and UTx have the capacity to change one of the most fundamental, and long considered immutable, facts of human procreation: that gestation requires a pregnancy sustained in the body of a biotypical person AFAB. It is seemingly undeniable that UTx and ectogestation could subvert empirical facts of procreation with some radical potential. Gestation facilitated by all bodies, or no body, does enable some reconfiguration of individual reproductive capacities, and our subjective and collective understandings of procreation. While a clear ‘ontic injustice’,⁵³ trans men who gestate are, at present, viewed/treated as still conforming to the existing binary. Many nonbinary or trans men people who have carried pregnancies describe being treated by

⁵⁰ Giulia Cavaliere, ‘Ectogenesis and Gender-based Oppression: Resisting the Ideal of Assimilation’ (2020) 34 *Bioethics* 727–34, 728.

⁵¹ Union of Physically Impaired Against Segregation (1974) <<https://disability-studies.leeds.ac.uk/wp-content/uploads/sites/40/library/UPIAS-UPIAS.pdf>> accessed 1 September 2024.

⁵² I am grateful to Professor Stephen Wilkinson for raising this point with me in discussion.

⁵³ Katherine Jenkins, ‘Ontic Injustice’ (2020) 6 *Journal of the American Philosophical Association* 188–205; Katherine Jenkins, *Ontology and Oppression: Race, Gender, and Social Reality* (OUP 2023). In her book, Jenkins defines ontic injustice as occurring where an individual is ‘socially constructed as a member of a certain social kind where that construction consists, at least in part, of their falling under to a set of social constraints and enablements that is wrongful to them’ at 35. Trans men or nonbinary people being treated as female or as women because they are gestating is wronging them in assigning them to a social kind that confines their expression of self and identity.

others, including people within gender queer communities, as ‘really women’ or ‘female where it matters.’⁵⁴ For some, these social attitudes projected onto their facilitation of gestation generated more dysphoria than the changes to their body resulting from the bodily work facilitating gestation itself.⁵⁵ UTx and ectogestation could be used in ways that displace and unsettle the language of procreation structurally because such descriptions of gestation cannot (in ways that misgender or re-sex) revert to binary conceptions of gender and sex. Where cis men (men AMAB) sustain pregnancies, existing social scripts cannot be used to explain away the challenge to cis-heteronormative modes of procreation. Such a pregnancy contributes, like we should understand trans pregnancies as already doing, to understanding how sex as well as gender can be unravelled, unmade, and remade.

Where no person sustains a pregnancy, gendered and sexed terms *need not* be used at all to describe the generative process in procreating. This does not necessarily mean that they would be. There is every possibility that cultural and poetic discourses will gender the artificial placenta.⁵⁶ For example, modes of transport like ships and cars are often gendered female as a result of pervasive social scripts. These are things that deliver us to places (from A to B). When people talk of ships they often talk of their ‘carriage’ and so the gendering here may directly be the result of the analogizing to conceptions of pregnancy (specifically a container model) that takes a conceptus from A (conception) to B (mature fetal physiology and capable of making the transformation to neonatal physiology). Moreover, nationalist discourses often speak of home countries as the ‘motherland’, which has connotations of gendering in origins. All of this is to say that there is a possibility that AAPT devices are similarly sexed and gendered. Gestation is not necessarily unsexed activity when it is unhumanized.

If non-sexed terms were used for gestation this could have particular importance for challenging the extent to which people’s reproductive destinies are deemed dictated by their biosex (eg cis women must reproduce, trans women ought not). There is less attention afforded to the reproductive possibilities for trans women. In some jurisdictions, sterilization of trans women is mandatory for legal transition,⁵⁷ and in others limited discussion (if any) is had

⁵⁴ Fischer (n 32), 81–82.

⁵⁵ *ibid.*

⁵⁶ I am grateful to Professor Suzanne Ost for this point.

⁵⁷ eg in Japan. The 2003 law was upheld by the Japanese Supreme Court in 2019. For an account of the genealogy of state-enforced sterilization of trans individuals in Western states (primarily Europe), see Julian Honkasalo, ‘In the Shadow of Eugenics: Transgender Sterilisation Legislation and the Struggle for Self-determination’ in Ruth Pearce and others (eds), *The Emergence of Trans: Cultures, Politics and Everyday Lives* (Routledge 2019) 17–33.

with transitioning persons about fertility preservation and a fertile future.⁵⁸ Cárdenas suggests this has particular harms for trans women of colour and results from a 'trans-misogynist dynamic'⁵⁹ within society and within queer communities. This dynamic results from perpetuated notions within feminist and queer theory that desires for procreation in trans women are a mere form of 'heteronormative false consciousness'.⁶⁰ Novel technologies enabling gestation could go some way towards enabling transfeminine and nonbinary people AMAB to envision their own procreative futures.

We ought not think of UTx and AAPT as tools to 'de-gender' procreation since persons, whether capable of sustaining pregnancy or not, may consider their gender, as a cultural construct, an important part of how they understand their procreation, and this technology does not introduce gestation outside the gender binary. As noted, this already exists. Rosenblum, in their case for the 'un-sexing' of mothering, emphasizes the importance of the concept of 'un-sexing' in ensuring that analysis is not only focused on the experiences of cis women but also works to challenge the links between biosex and the expectations placed on sexed bodies.⁶¹ UTx and AAPT may be thought of as instruments that 'un-sex' gestation, because they enable people to reproduce by modes not confined to their assigned biological sex. I describe this specifically as a project of 'un-sexing' rather than 'de-sexing' because there may be ways in which people consider their sex as fundamental to their identity⁶² and so it is retracting from the complexities of human experience to work towards the complete 'removal' of sex in procreation. 'Un-sexing' instead does the work to signify that sex need not *confine* procreative possibility. It also leaves space for the acknowledgement that sex is not dimorphous. Can it be claimed that replacing or changing the nature of gestation may be able to erode the association between assigned female biology and gestation if it becomes possible for persons of different sexes to more routinely undertake gestational work?

In considering the extent to which UTx and AAPT can 'un-sex' gestation, it is important to understand 'un-sexing' as a *process*. Chadwick explains that imagining how we can un/gender (and, similarly, I suggest, un/sex) 'involves

⁵⁸ Shon Faye, *The Transgender Issue: An Argument for Justice* (Allen Lane 2021) 49.

⁵⁹ Micha Cárdenas, 'Pregnancy: Reproductive Futures in Trans of Color Feminism' (2016) 3 *Transgender Studies Quarterly* 48–57, 55.

⁶⁰ *ibid.*

⁶¹ Darren Rosenblum, 'Unsex Mothering: Toward a New Culture of Parenting' (2012) 35 *Harvard Journal of Law and Gender* 57–116, 59–60.

⁶² As Chappell explains it, some individuals will identify more with being a certain sex rather than a gender (and some will identify with a gender more than a sex). Sophie Grace Chappell, 'Transgender: A Dialogue' *Aeon* (2018) <<https://aeon.co/essays/transgender-identities-a-conversation-between-two-philosophers>> accessed 2 November 2022.

tracing certain kinds of oppressive logics and sociomaterial conditions rather than reiterating a mode of difference that is intrinsic to particular bodies.⁶³ Tracing the oppressive logics and socio-material conditions that surround gestation illuminates the extent to which radical possibilities are limited by social forces. The law, though just one instrument in the wider socio-political regulation of procreation, is a significant source of oppressive logics that are fundamentally sexed and thus would likely limit the potential of both UTx and AAPT to 'un-sex' procreation. This occurs both at the level of what is or is not permissible in terms of how each technology can be used and by whom, and at the level of which experiences the law affords recognition to and the language it uses to do so. What I argue here is not that (P3) is incorrect in abstraction, but that the context of oppressive social logics and socio-material conditions will likely limit the radical subversive potential of novel forms of assisted gestation. While imagining the possibilities of UTx and AAPT in a utopian future without binary understandings of sex and gender dictating social conditions is exciting, it does little to illustrate the transformative possibilities of the technology (how we get from here to there). Defenders of the liberal feminist position outlined seemingly, however, assert that it is this technology that has created this future (rendering some of their claims rather circular). It is important to highlight just some of the oppressive forces and socio-material conditions that tell us otherwise. I question the extent to which public attitudes can shift where these technologies are not widely used in ways that challenge, rather than reaffirm, traditional notions of binary biological sex.

Oppressive Forces and Socio-material Conditions

In what follows, I illustrate that the law is consistently used in many jurisdictions to reinforce a binary understanding of procreation and thus it is difficult to imagine the realization of the transformative potential of UTx and AAPT in contemporary socio-material conditions. These conditions, instead, erect clear and complete socio-legal barriers to the subversive potential of novel gestations enabled by technology. Many of these barriers can be claimed to result from the fact that law lags behind scientific possibility. Indeed, some may argue that looking at technologies that do not yet exist in contemporary contexts has limited utility because there will likely be a shift in socio-material

⁶³ Chadwick (n 39) 246.

conditions by the time that these technologies come to fruition.⁶⁴ However, the pace of social, and especially legal, change is much slower than that of scientific advancement. Moreover, as the history of reproductive regulation can attest, even where progressive regulation affords groups marginalized by their sexual or gender identity recognition and protection from some forms of discrimination, the law has not gone so far as to enable procreation outside of the cis-heteronormative archetype even where possible. Sex between men was decriminalized in England and Wales in 1967,⁶⁵ but same-sex couples only obtained, by law, the ability to adopt in 2002.⁶⁶ The use of assisted reproductive technologies to form families outside of the cis-heteronormative paradigm have historically taken much longer to become lawful, and then (because finally available) subsequently normalized and socially accepted. Despite in vitro fertilization (IVF) becoming routine towards the end of the twentieth century, it was directly prohibited for same-sex AFAB couples (where the pregnant person used their partner's ovum and donor sperm) in France until 2021,⁶⁷ and indirectly in England and Wales until 2008.⁶⁸ It was only in 2022 that the National Health Service made IVF treatment equally accessible to same-sex AFAB couples.⁶⁹ Consideration of the socio-material conditions created by law and other governing structures, and how they interface with these technologies to limit their potential, can also show us what needs to change.

In particular, there exists considerable social and cultural fear surrounding transgender procreation that 'has had a profound impact on the way European jurisdictions recognise gender'.⁷⁰ These fears are heavily tied to the discomfort sometimes generated by people engaging in procreative activity that subverts the confines of binary sex roles. While in England and Wales, there has never

⁶⁴ Horn describes discussions of ectogestation in 'legal scholarship is frequently preoccupied with accepting the law as it is rather than exploring law as it could be': 'Claire Horn, *Gestation Beyond Mother/Machine: Legal Frameworks for Artificial Wombs, Abortion and Care*' (PhD thesis, Birkbeck University of London 2020) 152.

⁶⁵ Sexual Offences Act 1967.

⁶⁶ Adoption and Children Act 2002.

⁶⁷ Loi 2021-1017 du 2 août 2021 relative à la bioéthique, Titre Ier Élargir l'accès aux Technologies Disponibles Sans S'affranchir De Nos Principes Éthiques (Bioethics Law 2021: Title I, Expand Access to Available Technologies Without Departing from our Ethical Principles).

⁶⁸ Because of the requirement in s 13(5) of the Human Fertilisation and Embryology Act 1990 that IVF clinics consider a child's 'need for a father' when determining whether to provide treatment (this was amended by the 2008 Act). See Sally Sheldon and others, "'Supportive Parenting": Responsibility and Regulation: The Welfare Assessment under the Reformed Human Fertilisation and Embryology Act (1990)' (2015) 78 *Modern Law Review* 461–92.

⁶⁹ Tobi Thomas, "A giant step": charities welcome plan to widen access to IVF on NHS' (2022) *The Guardian* <<https://www.theguardian.com/society/2022/jul/20/a-giant-step-charities-welcome-plan-to-widen-access-to-ivf-on-nhs>> accessed 6 November 2022.

⁷⁰ Peter Dunne, 'Transgender Sterilisation Requirements in Europe' (2017) 25 *Medical Law Review* 554–81, 555.

been a requirement that people must be sterilized to change their legal gender/sex, such a requirement is commonplace in other jurisdictions. In 2017, *Garçon and Nicot* came before the European Court of Human Rights (ECtHR) in which three French citizens, among other matters related to proper recognition of their sex and gender, submitted that the French state infringed their right to respect for private life⁷¹ in making recognition of their transition contingent on undergoing sterilization or a surgical procedure with a high likelihood of sterility.⁷² The Court noted that, at the time they were making this decision, there were twenty-four signatory States (out of the forty-six total) to the European Convention that enforced a legal requirement on gender diverse people to undergo sterilization to obtain legal recognition of their transition.⁷³ The Court stipulated that, in line with the French government's submission, signatory States have an obligation to recognize gender reassignment. However, States have discretion to determine the conditions a person seeking recognition must meet to establish they have undergone reassignment.⁷⁴ The Court found, however, that a condition of sterility, or likely sterility, requires individuals to relinquish full exercise of their physical integrity in a manner that can only be described as a violation of the right to private life.⁷⁵

The *Garçon and Nicot* decision is clearly to be welcomed as a move away from genitocentrism in European jurisprudence,⁷⁶ and some scholars have praised the decision as potentially paving the way for the queering of parenthood and having queer family rights protected under the European Convention—for example, recognition for ‘the pregnant man or the female father.’⁷⁷ I take a more sceptical view, however. The decision is narrow and gives no ground for fuller protections for trans and nonbinary people who view a procreative future as central to their conception of self. This is because of the focus on sterility as one's integrity being *physically* violated, as opposed to a reflection on the deprivation of a procreative future as the harm (potentially, the

⁷¹ Art 8 of the European Convention on Human Rights.

⁷² *Garçon and Nicot v France*, Application No 79885/12 (2017).

⁷³ These countries were Armenia, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Finland, France, Georgia, Greece, Latvia, Lithuania, Luxembourg, Montenegro, Norway, Romania, the Russian Federation, Serbia, Slovakia, Slovenia, Switzerland, Turkey, and Ukraine.

⁷⁴ Following *Christine Goodwin v the United Kingdom*, Application No 28957/95 (2002); *I v the United Kingdom*, Application No 25680/94 (2002); *Van Kück v Germany*, Application No 35968/97 (2003). NB: The importance of having one's gender recognized as a part of the right to private life was a decades long fight in the ECtHR and there are a considerable number of cases where the argument failed before those listed here resulted in a sea change.

⁷⁵ *Garçon and Nicot v France* (n 72) [131].

⁷⁶ Damian Gonzalez-Salzburg, ‘An Improved Protection for the (Mentally Ill) Trans Parent: A Queer Reading of AP, *Garçon and Nicot v France*’ (2018) 81 *Modern Law Review* 526–38, 532.

⁷⁷ *ibid* 538.

psychosocial harm that results from being *forced* to relinquish the possibility of becoming a genetic parent). Of course, there is a serious violation that occurs where a person is *forced* to undergo a hysterectomy to obtain legal recognition of their being male. However, in focusing wholly on the physical harm in sterility when a person's body is no longer able to procreate with a capacity previously had, there is the danger of not adequately recognizing the harm of being deprived of a procreative future. A finding that European Convention signatory governments may not require sterilization of transitioning individuals does not, I would argue, translate to an empowering statement in support of procreative futures outside biological sex features at birth. The decision does enable trans men and nonbinary people AFAB to retain their generative reproductive function if this is how they envisage becoming a parent. However, this does not prevent State interference in other ways that make procreation impossible for trans men and nonbinary people with a retained capacity to gestate. Many of the States who had passed laws requiring sterilization did so explicitly because they deemed transitioning/transitioned individuals to be incapable of parenting.⁷⁸ The transphobic construction of trans/nonbinary people as 'less fit to parent' is not dispelled by this judgment, and thus discrimination instead may manifest in other ways to the same end.⁷⁹ As Dunne explains, now '[l]abelling transgender individuals as incapable child-carers may not justify sterilisation, but it can legitimise national rules which withhold custody or reduce employment rights'.⁸⁰ Moreover, the decision does not have any implication of a positive right of transitioning persons to assistance in ensuring a reproductive future (eg by cryopreservation of gametes), but is only a negative right to non-state interference with their fertility. The motivations across Europe for sterilization laws were threefold, according to Dunne: certainty in legal parenthood, child welfare, and the preservation of natural procreation.⁸¹ These same conservative logics may also motivate direct and indirect prohibitions on subversive and transformative uses of UTx and AAPT by any person of any sex.

The law in England and Wales, at present, potentially directly prevents both UTx in persons who are legally male and complete ectogestation and is not friendly to procreation outside of the reproductive biosex binary as noted in Chapter 4. The unsuitability of the law to easily accommodate some queer couples/families is reason enough for reform in contemporary contexts.

⁷⁸ Dunne (n 70) 569.

⁷⁹ *ibid* 561.

⁸⁰ *ibid* 557.

⁸¹ *ibid*.

Within the law as written is an undertone of an intention to preserve reproductive binaries in the contemporary legislative regime that may limit the ‘un-sexing’ capacity of UTx. This could come to limit the possibility of people AMAB becoming pregnant and birthing, never mind its widespread use as a way of ‘un-sexing’ generative procreative work. In addition to legislation that directly reinforces binary biosex roles in procreation, as discussed in Chapter 4, there are indirect legal mechanisms (such as clinics being required to consider the welfare of future children when providing procreative treatment) by which creative and unsexed modalities of gestation become inaccessible.

Another *directly* oppressive condition by which law genders and sexes procreative roles is in the rules determining categories of parenthood. In England and Wales, people who gestate are ‘mothers’⁸² regardless of their legal gender.⁸³ In 2013, proceedings were brought in the German Federal Court of Justice by a trans man who had gestated and birthed and wanted to be recognized on his child’s birth certificate as their father rather than their mother.⁸⁴ His case was unsuccessful. A similar 2020 challenge to the birth registration system in England by a trans man was dismissed by the Court of Appeal.⁸⁵ The judges in the English decision do attempt to assert that their decision is ‘gender-neutral’ because the label ‘mother’ serves only to identify a role that a person plays in procreation, rather than signifying their gender.⁸⁶ However, these decisions illustrate the sexing and gendering function in law, here reifying sexed and gendered biological determinism.⁸⁷ The judgments exemplify the reinforcing of a link between biotypical female reproductive capacities and ‘a term that remains gendered in its popular use’.⁸⁸ Furthermore, because ‘legal language reproduces power structures’,⁸⁹ these decisions ‘exhibit the role of state institutions and officials in regulating family relationships (and, more widely, people’s lives)’ based on an entrenched ideological commitment to a binary conception of biosex and the cis-heteronormative family.⁹⁰

⁸² *Amptill Peerage Case* [1977] AC 547; Human Fertilisation and Embryology Act 2008, s 33.

⁸³ Gender Recognition Act 2004, s 12; *R (McConnell and YY) v Registrar General* [2020] EWCA Civ 559.

⁸⁴ BGH XXI ZB 660/14.

⁸⁵ *McConnell* (n 83).

⁸⁶ *ibid* [279].

⁸⁷ Liam Davis, ‘Deconstructing Tradition: Trans Reproduction and the Need to Reform Birth Registration in England and Wales’ (2021) 22 *International Journal of Transgender Health* 179–90, 182.

⁸⁸ Elizabeth Chloe Romanis, ‘Regulating the “Brave New World”: Ethico-Legal Implications of the Quest for Partial Ectogenesis’ (PhD thesis, University of Manchester 2020) 231.

⁸⁹ Zaina Mahmoud and Elizabeth Chloe Romanis, ‘On Gestation and Motherhood’ (2023) 31 *Medical Law Review* 109–40, 121.

⁹⁰ Alice Margaria, ‘Trans Men Giving Birth and Reflections on Fatherhood: What to Expect?’ (2020) 34 *International Journal of Law, Policy and the Family* 225–46, 234.

The current birth registration system might mean that for trans women UTx is appealing because it would be the only way that they could be recognized as the legal mother of a child. However, this is hardly radically subversive since this is requiring trans women to conform to a gestationality requirement to be afforded recognition of their social role in a child's life. Further, gestation determining motherhood deters some trans men from undertaking pregnancy, also a subversive procreative activity, because of dysphoric language describing their relationship to a child. Genetics are used as the primary factor to determine who a 'father' is;⁹¹ and in England, the law is clear this is only a man who has produced sperm.⁹² Such rules might also constrain how we come to understand ectogestation if biosex roles are reinforced through gamete contribution. In many ways, therefore, contemporary birth registration systems that determine parentage by both gestation and genetics continue to reinforce the rigidity of biosex roles and also need reform. Parenthood, gestation, and novel technologies enabling gestation is discussed in more detail in Chapter 6.

What this landscape illustrates is that there exists a hostile legal culture towards procreation outside the cis-heteronormative binary, particularly when people seek to break the confines of biosex. As such, technologies that can replace or change the nature of gestation are seemingly unable to sufficiently challenge norms about procreation without accompanying radical reform to social understandings of reproductive roles and of procreation beyond the binary and the legal frameworks that both dictate and enforce them. Even without the legal obstacles to gender/sex parity in procreation, there remain the social pressures that are not just dictated by the law but also social convention and ordering.

The Possibilities from Un-sexing

For Smajdor, there need not be any causative account provided of how 'un-sexing' gestation improves gender equality directly; it is simply a matter of justice as fairness. She posits the following, based on Rawls' veil of ignorance:⁹³

⁹¹ *Leeds Teaching Hospital NHS Trust v A* [2003] EWHC 259. Note that sperm donors cannot rely on their genetic contribution to be identified as the father where their sperm was donated through a licensed clinic as per the Human Fertilisation and Embryology Act 2008, s 28(6).

⁹² Human Fertilisation and Embryology Act 2008, s 3ZA(6); *J v C* [2006] EWCA Civ 551; *X, Y, Z v UK* [1997] ECHR 20.

⁹³ John Rawls, *A Theory of Justice* (Harvard University Press 1999).

you are asked whether you would prefer to be born into society A, where women [people AFAB] bear all the risks and burdens of gestation and childbirth, as they do now, or society B, where ectogenesis has been perfected and is routinely used. You do not know whether you will be born as a man or a woman [as a person with or without the innate capacity to gestate]. Which would you choose?⁹⁴

Let us imagine that in society B, UTx has also been perfected for use in any body and is also routinely used. The claim as presented appeals to a natural intuition. I do not seek to deny that ultimately society B is probably preferable to society A for a variety of reasons. In society B, people of all genders and sexes (assuming all other things are equal; note the significant challenges resulting from disparate access to reproductive technologies along the strata of class, socio-economic status, and race in Chapter 4) can seek a procreative experience that matches their particular desires about pregnancy and *gestation*. People who are biologically or socially infertile because of an inability to gestate may find considerable value in these technologies, if available, in facilitating privacy in their reproductive journeys.⁹⁵ With the assistance available in the present that requires another party to gestate, there is some sense that reproductive journeys can be fraught with socio-political intervention and feelings of powerlessness.⁹⁶ Further, affording people AFAB more control over what physical burdens they are willing to assume in pregnancy allows people who may find the concept of a pregnancy dysphoric, or who are afraid of it or simply see it as bodily work they would rather avoid, to procreate without being pregnant. Simultaneously, people for whom pregnancy is a meaningful experience—whether AMAB or AFAB—can actively seek that experience without biological limitation. However, to say that society B is preferable, and that its conditions better appeal to intuitions of fairness and justice, is not the same as saying that if we lived in society B we would be closer to gender equality. Smajdor herself does somewhat concede this, noting that ‘if you are a woman [AFAB], you will be worse off than your male peers. Perhaps not all the disbenefits of being a woman are attributable to childbearing. But alleviating these burdens would surely help.’⁹⁷ She goes no further into explaining how.

⁹⁴ Smajdor, ‘The Moral Imperative for Ectogenesis’ (n 4) 343.

⁹⁵ Romanis, ‘The Equality-Enhancing Potential’ (n 11) 640.

⁹⁶ *ibid* 642.

⁹⁷ Anna Smajdor, ‘In Defence of Ectogenesis’ (2012) 21 *Cambridge Quarterly of Healthcare Ethics* 90–103, 99.

Cavaliere has observed that justifying ectogestation (and presumably also the availability of UTx for people AMAB) ‘as a means to end gender-based oppression relies on a bet as to how oppressive social norms will evolve once biological differences have been removed.’⁹⁸ Thus, proponents of the original position need to also defend P4 to show some causal connection between the unsexing possibilities of technologies, assuming socio-material conditions do not prevent this, and the elimination of gender-based oppression. Some, including Singer and Wells⁹⁹ and Smajdor,¹⁰⁰ make only a causative *assumption*; the mere possibility of persons other than those AFAB undertaking gestation means that a fundamental source of gender-based oppression can be eliminated. Elsewhere with Horn, I noted my concern that these accounts reflect ‘a curious paradox: in order to escape “current cultural and social paradigms”, the literature tends to leap to a future in which these paradigms have been erased. In so doing, it fails to address the contemporary limitations that make this future ungraspable.’¹⁰¹ There are, as explored, considerable obstacles to the widespread use of the technology in radically disruptive or transformative ways.

There are two main justifications given for how assisted gestation can enhance gender equality: one relies on a conceptual decoupling of women from pregnancy and gestation in social consciousness, and the other relies on the practical benefits for people AFAB if they are no longer required to gestate to become parents. I argue, however, that neither of these justifications provides a persuasive account of how novel technologies enabling gestation can eliminate or reduce gender-based oppression without significant changes in legal and other socio-material conditions.

Ferreria asserts that ectogestation will ‘no doubt decisively contribute to changing society’s attitudes to women’s perceived traditional roles, decoupling women from the—until then—seemingly indissoluble link between biology and reproduction.’¹⁰² MacKay explains the mechanism for ending gender oppression within gestation outside of the body, and presumably also in bodies AMAB, is in how it ‘destabilizes how we conceptualize “woman” as definendum, and fundamentally removes grounds for a functionalist argument that sees female reproductive capacity as a key definiens.’¹⁰³ Ultimately, she explains that despite social progress in recognizing diversity in gender identities,

⁹⁸ Cavaliere (n 50) 729.

⁹⁹ Singer and Wells (n 6).

¹⁰⁰ Smajdor, ‘The Moral Imperative for Ectogenesis’ (n 4).

¹⁰¹ Horn and Romanis (n 10) 236.

¹⁰² Ferreira (n 15) 387.

¹⁰³ MacKay (n 4) 347.

‘female reproductive function is used to delineate who counts as woman, based on biological features and performances. If it is possible to remove female reproductive work from women’s bodies, even theoretically, then this ground for delineation is undermined.’¹⁰⁴ This seems unsubstantiated. There are already pregnancies that subvert these so-called ‘key definiens’ and yet they are not celebrated and raised as a challenge to a society that shackles by sex and gender. Prevailing social currents continue to otherize these activities as aberrations existing outside the norm. Further, technologies have introduced control over biological function such that people with the capacity to become pregnant can either prevent a pregnancy (contraception) or end a pregnancy (abortion), so that they are no longer confined to a biological destiny of reproducing. There remains, however, a significant undertone of pronatalism to many contemporary societies.

Here, it is pertinent to address the point that the argument of gender equality as it was initially presented is how it is given by scholars who are writing about ectogestation, and not UTx. In fact, Mackay is particularly disparaging of UTx when used by cis women, as she believes it to be a dangerous activity underpinned by a sort of false consciousness instilled by societal pronatalism.¹⁰⁵ UTx in bodies AMAB, I would argue, might have more of the discursive power that these writers claim for ectogestation, because in many ways it goes further to break the link between the cultural understandings of female biological function and gestation. It is easy to imagine the cultural narration about ectogestation being that its use is people AFAB opting out of an activity that is (and always will be) sexed female. Ectogestation could be thus understood as the *unhumanizing* of the generative process, rather than the unsexing of it. In contrast, however, UTx flies in the face of this construction. For Smajdor, the discursive power in ectogestation is enabling ‘women to reproduce as men do’¹⁰⁶—it seems, however, that there is infinitely more discursive potential in a world in which it is normalized for *men to procreate as women do*, that is to undertake bodily, generative work. Even this, however, would require cis men to rise to the challenge, something I am unsure they would do *en masse* because of conscious, or subconscious, subscription to not only the reproductive biosex binary but also the patriarchy (as well as practical reasons about the comparative ease of becoming pregnant and sustaining a pregnancy when born with a uterus versus being born without).

¹⁰⁴ *ibid* 351.

¹⁰⁵ *ibid* 349–50.

¹⁰⁶ Smajdor (n 4) 340.

Other commentators have conceptualized gender equality as resulting from the benefit to people who have the capacity to gestate in choosing not to do so when procreating. Kendal explains that the social burden of pregnancy is great; ‘pregnancy serves to materially damage women’s social lives and limit their future opportunities.’¹⁰⁷ These opportunities are described primarily in relation to the workplace. It is undeniable that women, because they are presumed to have the capacity to gestate (see the example earlier in this chapter), are discriminated against. In jurisdictions with statutory maternity pay, employers attempt to avoid these obligations. People who are thought able to become pregnant are also targeted in other ways (eg not hired because of the potential cost of replacing them if they take unpaid leave). People who carry pregnancies and birth can also often be stereotyped as being less, or not at all, career motivated. Thus, some argue that ectogestation enables people AFAB to no longer automatically be assumed the primary caregiver. MacKay explains how valuable career goods are denied to women, specifically equal pay, equal opportunity for career progression, and particular career options altogether, because they must undertake pregnancy (doing the bodily work in facilitating gestation) to become parents.¹⁰⁸ This is the case despite many jurisdictions having introduced workplace anti-discrimination laws that, in theory, should address these problems.¹⁰⁹ These problems all come, Simonstein advocates, from ‘the fact that women (unlike men) are those who bear the child and must slow down.’¹¹⁰ The biggest strain on the worker who becomes a pregnant is not pregnancy and birthing itself, but the advent of childrearing responsibilities, which pose a significant imposition.¹¹¹ Parents who undertook the pregnancy are assumed to need to provide the greater share of care work in childrearing.

Where it is not people AFAB who gestate, it might be argued that care work for resulting children can be more easily redistributed. This may be because gestation outside of the body could normalize a person without female physiology being the primary caregiver. While some have argued that gestation *extra uterum* might lead to men taking on more responsibility for the generative process itself,¹¹² this position would hold more weight if we talked about

¹⁰⁷ Kendal (n 3) 12. It is important to acknowledge that Kendal’s position is more nuanced than most: ‘while a lot of social changes are required to combat this problem . . . technological alternatives to physical gestation represent one method of challenging this norm.’

¹⁰⁸ MacKay (n 4) 352.

¹⁰⁹ *ibid.*

¹¹⁰ Simonstein (n 4) 182.

¹¹¹ *ibid.*

¹¹² Iain Brassington, ‘The Glass Womb’ in Frida Simonstein (ed), *Reprogen-Ethics and the Future of Gender* (Springer 2009) 196–209, 207; Stellan Welin, ‘Reproductive Ectogenesis: The Third Era of Human Reproduction and Some Moral Consequences’ (2004) 10 *Science and Engineering Ethics* 615–26, 624.

UTx more seriously since a male body could be expressly connected to the generative function. Even then, I remain unconvinced. Formula milk and breast pumps, as well as shared parental leave,¹¹³ in theory, made it much easier for cis men to become the primary caregiver after birth, allowing birthers to return to work earlier if they wish, and yet such arrangements remain rare. Removing gestation from the body, in particular, does not necessarily mean that thousands of years of societal convention about childrearing are simply displaced. If such shifts did not happen with societal conventions of equal opportunity in employment or equal pay (not that either of these issues should be considered resolved), it is hard to imagine that technology is the silver bullet. Kendal advances a more detailed account of change in that ‘the physical incapacitation of gestation lays down the foundation for gender inequality in childrearing responsibilities.’¹¹⁴ Because people AFAB must physically take the time off from work during a pregnancy, to birth and to recover, this perpetuates an unequal distribution of the burdens of childrearing thereafter. I think this link gets closer to what is at play here, but gendered roles in childrearing seem to go beyond the procreative role in bodily work facilitating gestation. In cis-heteronormative families, a female parent (whether cis-gendered or not) still faces considerable social pressure to undertake the primary burden of childrearing even if they did not gestate, for example, where they used surrogacy or adopted. Much of the social pressure experienced relates to the fact that mothers are consistently assumed to be, or it is reiterated that they should be, the primary caregiver of children. This manifests in the workplace,¹¹⁵ but also in social settings. In contemporary culture that reiterates the value of ‘intensive mothering,’¹¹⁶ Glaser writes ‘[m]others today are bullied and guilt-tripped into lowering their sights, reining in their ambitions, shelving their pleasures, and putting their own needs last. It’s done explicitly, through guidelines: subtly, through the media and public attitudes; and practically, through structural obstacles at every step of the way.’¹¹⁷ Much of the social pressure around parenting is exerted by people or institutions that do not (and need not) know about how the child was conceived or gestated. ‘Good motherhood’ narratives can thus impact non-birthing mothers just the same. Maybe at its historical root these pressures exerted on people who did not birth but do mother came

¹¹³ Some examples of countries with comprehensive shared parental leave structures that encourage, incentivize, or mandate fathers taking leave are Finland, Germany, Iceland, Norway, and Sweden.

¹¹⁴ Kendal (n 3) 14.

¹¹⁵ Jennifer Berdahl and Sue Moon, ‘Workplace Mistreatment of Middle Class Workers Based on Sex, Parenthood, and Caregiving’ (2013) 69 *Journal of Social Issues* 341–66, 343.

¹¹⁶ See Sharon Hayes, *The Cultural Contradictions of Motherhood* (Yale University Press 1996).

¹¹⁷ Elaine Glaser, *Motherhood: A Manifesto* (4th Estate 2021) 267.

from assumptions that anyone who mothered was assumed to have birthed, but the pressure has since evolved.

Employers, and employment conditions, as they are enabled by the law, are the issue, not pregnancies themselves. As I have argued with Horn elsewhere, the suggestion that social burdens on women to be the primary caregivers 'and gendered oppression in general can essentially be boiled down to the association of pregnancy with women's bodies'¹¹⁸ fails to capture much of what is happening. This approach 'turns away from more pressing contemporary questions of what issues we need to address in our society if couples are unable to access the resources necessary to share or comfortably distribute the work of parenting.'¹¹⁹ Further, it fails to appreciate the problems and pressures that such technologies might equally create for people AFAB or anyone who wants to gestate. First, there is the possibility of a 'levelling down' of employment rights¹²⁰ where gestation facilitated by bodily work can be framed as a matter of choice. Returning to the potential of UTx in this context, if any person, regardless of how their biosex or gender is perceived by others, was considered a potential gestator, this might do more to protect the rights of gestating persons than a world in which it is considered that no one need gestate. Pregnancy treated as purely a matter of preference (something to which many people attest) may do more harm overall to the objective of gender/sex equality or, more specifically, to equality in the workplace if there is not wide-sweeping reform before such a possibility may come to fruition. There is a real danger of this possibility since employment rights in pregnancy and birthing are legally conceptualized in many jurisdictions (including England and Wales, the European Union, and the US) as protection from discrimination on the basis of sex.

Second, it may be that the framing of employment rights prohibits radical uses of technologies. Decisions of the Court of Justice of the European Union (CJEU) regarding IVF¹²¹ and surrogacies¹²² failed to afford pertinent employment protections to putative parents on the grounds that these individuals were not pregnant. In the case of surrogacies, the CJEU has confirmed that employers need not provide maternity leave granted by the Pregnant Workers

¹¹⁸ Horn and Romanis (n 10) 239.

¹¹⁹ Elizabeth Claire Horn, 'Artificial Wombs and the Ectogenesis Conversation: A Misplaced Focus? Technology, Abortion, and Reproductive Freedom' (2020) 13 *International Journal of Feminist Approaches to Bioethics* 174–94, 186.

¹²⁰ I am grateful to Dr Victoria Hooton for discussions on this point.

¹²¹ C-506/06 *Sabine Mayr v Bäckerei und Konditorei Gerhard Flöckner* [2008].

¹²² C-167/12 *CD v ST* [2014]; C-363/12 *Z v A Government Department, The Board of management of a community school* [2014].

Directive to a putative parent by surrogacy (since the legislation framed access on the biological condition of pregnancy).¹²³ Member States that want to afford parental leave to parents by surrogacies and adoption must choose to do so with their own domestic legislation. In the case of IVF, the Court found that the EU framework protecting pregnant workers from dismissal did not apply before IVF embryos were implanted—thus creating a window in which an employer could dismiss an employee based on their plans for pregnancy before they are pregnant.¹²⁴ Hooton and I have raised concerns about the logic of such decisions being used to limit the employment rights of a person whose fetus is gestating *extra uterum*. It is easy to see how narrow conceptions of employment rights could become coercive (eg people may feel apprehensive about limited employment protections where they use ectogestation). Importantly, we argue that these decisions illustrate the problem in a framework that is overly focused on the fleshiness of procreation. This is not to say that people who get pregnant, sustain pregnancies, and birth should not be afforded protections that are specifically related to these capacities, but to say that employment rights surrounding procreation should not be connected *solely* to this—precisely because this feeds into the notion that it is the biosexed role in procreation that a person undertakes which determines what rights/provisions they are entitled to. This could manifest in a pressure to be pregnant to have guaranteed employment protections for early parenthood.

It may be argued that ectogestation is *the* technology to challenge the narrow formation of existing European employment law. However, the surrogacies and IVF cases are clear examples of injustice, and these technologies have been around for a long time, which illustrates how slow the law is to respond to developments. The law has such engrained notions of biosex roles that change is hard to envisage as a given. Further, many of the accounts of the benefits of ectogestation are precisely that one need not take as much leave from work. This seems to sit against a more radical project that can better protect workplace equality for all: parental leave that goes beyond references to bodily function.¹²⁵ The literature that considers ectogestation, therefore, redirects their focus from ‘addressing contemporary limitations, such as the absence of support for the work done by caregivers more broadly, or exploring why gestation, as something that historically has been done by women, may be socially

¹²³ *ibid.*

¹²⁴ Sabine Mayr (n 121).

¹²⁵ Victoria Hooton and Elizabeth Chloe Romanis, ‘Artificial Womb Technology, Pregnancy, and EU Employment Rights’ (2022) 9 *Journal of Law and the Biosciences* 1–33, 26–27 <doi.org/10.1093/jlb/lsc009> accessed 2 September 2024.

devalued' in favour of 'solving pregnancy' without thought to how the consequences might be worse.¹²⁶

Third, there are ways in which employers may also seek exploit procreative alternatives like ectogestation. Social egg freezing (extracting ovum and preserving them as a form of fertility preservation) has come under considerable scrutiny by bioethicists¹²⁷ since it has increased in popularity over the last decade. Some companies in the US, for example, have taken to offering social egg freezing as an employee benefit: Google, Apple, and Facebook.¹²⁸ While these employers ought not to be assumed to always/all have ulterior motives,¹²⁹ for some critics, motive is irrelevant. Employer-funded egg freezing been described as disempowering people AFAB 'by overtly entrenching the otherwise subtle message that women who have babies are not serious about their careers'.¹³⁰ It is not far removed from this status quo to imagine that employers might offer incentives for ectogestation or perpetuate an assumption that 'people who choose a complete gestation by pregnancy are less interested in their careers . . . their decision about how to complete a gestation could be seen as a symbolic declaration of their values'.¹³¹ Both Kendal and Simonstein put considerable emphasis on ectogestation as an 'option',¹³² but their analysis does not account for the possibility of workplace coercion. All of the highlighted problems will produce greater harm for people who have less bargaining power with their employers (lower-paid or precariously employed workers). Indeed, as has been acknowledged earlier in this book, this would not result in these people being forced to procreate with ectogestation (as they would be unlikely to afford it) but rather in being forced not to procreate.

Many who seek to make the argument that gender equality can result from gestation outside of the body rely on work by Firestone, who did advocate for gestation outside of women's bodies in her feminist manifesto.¹³³ However, as Murphy observed, arguments about gender equality resulting from technologies capable of gestation *extra uterum* fail to heed her warnings about the

¹²⁶ Horn and Romanis (n 10) 239.

¹²⁷ Françoise Baylis, 'Left Out in the Cold: Arguments Against Non-medical Oocyte Cryopreservation' (2015) 37 *Journal of Obstetrics and Gynaecology Canada* 64–67; Lisa Campo-Engelstein and others, 'Freezing Fertility or Freezing False Hope? A Content Analysis of Social Egg Freezing in U.S. Print Media' (2018) 9 *AJOB Empirical Bioethics* 181–93.

¹²⁸ Chris Weller, 'What You Need to Know about Egg-Freezing, The Hot New Perk at Google, Apple, and Facebook' *The Insider* (2017) <<https://www.businessinsider.com/egg-freezing-at-facebook-apple-google-hot-new-perk-2017-9>> accessed 6 November 2022.

¹²⁹ Hooton and Romanis (n 125) 9.

¹³⁰ Baylis (n 127) 65.

¹³¹ Hooton and Romanis (n 125) 9.

¹³² Simonstein (n 4) 182.

¹³³ Firestone (n 44) 74–75.

conditions in which the technology has liberating potential.¹³⁴ Firestone was adamant that ‘in the hands of our current society and under the direction of our current scientists . . . any attempted use of technology to “free” anybody is suspect.’¹³⁵ She was explicit that liberation was dependent first, before any singular technological solution, on the abolition of capitalism, racism, sexism, other forms of identity oppression, and institutions that perpetuate that oppression.¹³⁶ For Firestone and Lewis, this also means, for example, the abolition of marriage and of the family.¹³⁷ AAPT itself only has transformative potential where there is transformation in society.¹³⁸ Similarly, I cannot imagine UTx has any more transformative potential as we continue to live under the very conditions Firestone condemned in 1970. As illustrated, current conditions and social orderings limit the use of both AAPT and UTx in transformative ways.

If we treat AAPT and UTx as necessary for equality we perpetuate the notion that equality is impossible now when it could be with radical social and legal reform. As argued in this chapter, how we attribute parenthood and notions of responsibility themselves limit the transformative potential of technologies enabling gestation. This is explored further in Chapter 6.

¹³⁴ Murphy (n 8) 38.

¹³⁵ Firestone (n 44) 206.

¹³⁶ Murphy (n 8) 38.

¹³⁷ Firestone (n 44); Sophie Lewis, *Full Surrogacy Now: Feminist Against Family* (Verso 2019).

¹³⁸ Murphy (n 8) 38.