Dimensions of Equality in Regulating Assisted Reproductive Technologies

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Abstract

Although concerns about individual liberty and the nature and extent of reproductive freedom have tended to dominate discussions regarding the proliferation of and access to reproductive technologies, questions about the implications of assisted reproductive technologies (ARTs) for equality have also arisen. Despite the high number of invocations of equality in the literature regarding ARTs, to date little effort has been made to comprehensively examine the implications of ARTs for equality. This short Article seeks to highlight the variety of equality issues that ARTs present and to develop a framework for classifying different types of equality issues. Specifically, I suggest that three different types of equality concerns exist relevant to discussions about regulating ARTs: equality of access to ARTs (and thus parenthood), equal treatment in the resolution of disputes arising from the use of ARTs, and equality issues raised by trait-selection practices. My point herein is neither to condemn nor to rationalize the inequalities that close examination may reveal. This Article instead issues a challenge to scholars in the field to undertake a broader, more thorough consideration of the implications for equality that the development of, and regulation or non-regulation of, ARTs present.
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I. INTRODUCTION

Although concerns about individual liberty and the nature and extent of reproductive freedom have tended to dominate discussions regarding the proliferation of and access to reproductive technologies, questions about the implications of assisted reproductive technologies (ARTs) for equality have also arisen. Indeed, someone attuned to listening for equality concerns realizes that these questions crop up quite frequently in discussions regarding assisted reproduction.

Moreover, the bases for potential inequality are quite diverse; in some instances the development of ARTs is touted as ameliorating existing inequalities, while in others it is suspected of exacerbating those inequalities. For example, the website of a purveyor of egg-freezing services suggests that technology has the potential to equalize women’s position vis-à-vis men’s in the reproductive project—at least in part—by muffling the ticking of women’s so-called biological clock.1 By contrast, critics of surrogacy, or pregnancy contracts, in the 1980s and 1990s often warned that acceptance of the practice of surrogacy could worsen gender and social inequality by contributing to the development of a “breeder class” of poor women whose reproductive capacity would be coercively appropriated by wealthier couples seeking to acquire children.2 From yet another perspective, the development of ARTs has been described as creating an opportunity for the equal legal treatment of persons seeking to create a family, whether they do so simply by engaging in sexual intercourse or by the use of ARTs.3

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1. The Extend Fertility website states: “As women, we lead rich and demanding lives. . . . Egg Freezing offers women planning to have children after the age of 35 the opportunity to effectively slow down their biological clocks.” Extend Fertility, Why Freeze Eggs, http://www.extendfertility.com/why/ (last visited Aug. 25, 2005).


3. See John A. Robertson, Assisted Reproductive Technology and the Family, 47 HASTINGS
Despite the high number of invocations of equality in the literature regarding ARTs, to date little effort has been made to comprehensively examine the implications of ARTs for equality. While this short Article does not seek to accomplish such a comprehensive examination, it has the more modest aim of fostering future discussion. The Article thus seeks to highlight the variety of equality issues that ARTs present and to develop a framework for classifying different types of equality issues. Specifically, I suggest that three different types of equality concerns exist relevant to discussions about regulating ARTs: equality of access to ARTs (and thus parenthood), equal treatment in the resolution of disputes arising from the use of ARTs, and equality issues raised by trait-selection practices. My point herein is neither to condemn nor to rationalize the inequalities that close examination may reveal. This Article instead issues a challenge to scholars in the field to undertake a broader, more thorough consideration of the implications for equality that the development of, and regulation or non-regulation of, ARTs present.

II. EQUALITY OF ACCESS TO ARTS

A variety of circumstances can function to impede or deny access to ARTs for some individuals seeking to have children. Denials may result from providers’ decisions about whom they will serve, from legal rules establishing the availability of ARTs and the legal treatment of participants in ARTs, or from disparities in insurance coverage or financial wherewithal. An assortment of questions posed by inequalities in access to ARTs have already received some attention by scholars and policy makers. Part II, however, seeks to highlight some of the issues raised by access inequalities.

A. Access Inequality Based on Participant Status

A number of personal characteristics may affect the likelihood that individuals seeking to use reproductive technologies will successfully find a medical provider willing to provide services to them. Not surprisingly, some of these characteristics, such as sexual orientation or disability, are traits that may be likely to lead to social or economic disadvantage more

L.J. 911, 913 (1996) (asserting that the “family project,” whatever the method of conception, “should be treated equally” in each case).

4. This Article uses the term “assisted reproductive technology” (ART) broadly to include not only those technologies that assist prospective parents in achieving pregnancy, but also those technologies that parents use to make decisions about whether to proceed with or terminate the reproductive project. Thus, the final Part will consider the equality implications of trait-selection practices, which may or may not be used in conjunction with in vitro fertilization (IVF) or other methods of conception assistance.
generally. Others, such as marital status or procreative capacity, by contrast, may produce inequality particular to the context of seeking technological assistance in reproducing.

A recent study suggests the role that provider screening may play in creating inequities in access to ARTs. Researchers surveyed fertility clinics in the United States to determine clinics’ beliefs about and practices for screening prospective patients and found substantial variation in the practices reported by clinics. A key value shared by most clinics, however, is the belief that ART programs have both the right and the responsibility to screen candidates in order to avoid assisting individuals who are deemed to be unfit as prospective parents to conceive a child. Reflecting this belief, a substantial proportion of reproductive technology programs reported that they would be likely to turn away hypothetical candidates with particular attributes. While the researchers acknowledged that it is unclear whether the clinics would actually turn away such candidates (particularly in light of the fact that many programs do not collect information regarding attributes they consider relevant), the results described below certainly suggest cause for concern regarding potential inequalities in access.

One basis on which substantial numbers of clinics reported a likelihood of turning away candidates was the candidate’s desire to parent singly. Many clinics indicated a reluctance to provide ART services to single persons, but this reluctance was imbalanced across gender lines. While 20% of programs said that they would be very or extremely likely to turn away a woman without a husband or partner, 53% reached the same conclusion for a man who sought services without a wife or a partner. Thus, clinic personnel’s beliefs regarding the ability of individuals to parent singly may pose a real barrier to single persons seeking assistance in reproducing.

While many programs apparently believe that one parent is not enough, the presence of two individuals seeking ART services does not guarantee a judgment of parental suitability if the couple is gay or lesbian. The percentage of clinics reporting an unwillingness to provide services to gay

6. Id. at 65–66.
7. Id. at 64–65.
8. Id. at 65.
9. Id. at 65–66.
10. Id. at 65.
11. Id.
or lesbian couples is nearly as high as the percentage unwilling to provide services to single parents, and it is similarly divided along gender lines. Reports of providers refusing to provide ART services to gays and lesbians are not uncommon, and they tend to confirm the existence of inequality between heterosexual couples and homosexual couples who seek medical assistance in bearing a child.

Another type of information relevant to clinics’ decisions to provide ART services is the prospective parent’s health or disability status. This is particularly true with respect to women infected with human immunodeficiency virus (HIV) who seek ART services; more than half of the programs responding to the survey indicated that they would be unlikely to provide services to HIV-positive women. This finding is consistent with Professor Carl Coleman’s research, which suggests that refusals to provide ART services to individuals infected with HIV may constitute a form of disability discrimination.

Colman, however, also points to evidence that medical providers may screen out prospective patients based on other health conditions or disabilities. The recent study of ART programs provides further support for Coleman’s conclusions, finding that providers attached varying degrees of importance to conditions including a prospective mother’s severe diabetes (causing pregnancy to carry a 10% risk of maternal death), a prospective mother’s bipolar disorder, and “limited intellectual capacity” or blindness of both prospective parents.

12. Forty-eight percent of the programs reported that they would be very or extremely likely to turn away a gay couple who sought to have a child through a surrogacy arrangement, with one of the men as the sperm source; seventeen percent indicated that they would be very or extremely likely to turn away a lesbian couple who sought to use donor insemination. Id.

13. See, e.g., Peter Y. Hong, Lesbian Sues Over Physician’s Refusal to Do Insemination, L.A. TIMES, Feb. 18, 2003, at B6. At the same time, however, some providers of ART services have recognized gays’ and lesbians’ unmet demand for services and have chosen to cater to that market. See, e.g., Sandra G. Boodman, Fatherhood by a New Formula, WASH. POST, Jan. 18, 2005, available at http://www.washingtonpost.com/ac2/wp-dyn/A16533-2005Jan17?language=printer (describing a law firm that serves as a broker recruiting egg donors and surrogates for nontraditional parents).


16. Id. at 29–31.

17. The respective percentages of programs reporting that they would be very or extremely likely to turn away candidates with specific conditions are as follows: severe maternal diabetes (55%), maternal bipolar disorder (13%), limited intellectual capacity of both members of the couple (15%), and blindness of both members of the couple (3%). Gurmankin et al., supra note 5, at 65. It is interesting that the survey specified that the blind prospective parents were blind from an accident, rather than congenitally blind. Presumably this reflects an effort to focus the inquiry on perceptions of the fitness of prospective parents, rather than on eugenic concerns about the
Although this recent study supports a conclusion that the patient screening practices of ART programs may produce some troubling inequalities among patients in access to ART services, provider screening is not alone in contributing to inequalities. A number of laws and regulations may also impede access for individuals with particular characteristics. For example, a recently implemented FDA rule advises sperm banks not to accept anonymous donations from men who have had sex with another man within the previous five years and thus may limit the ability of gay men to serve as donors for women or couples seeking to achieve a pregnancy.

In contrast to the regulatory limits on gay sperm donors, other laws regulating access to ARTs do not tend to flatly prohibit the use of ARTs by specific groups. Instead, they prevent some individuals from claiming legal protections relating to the parentage of children born as a result of the use of ARTs and from enforcing related contractual arrangements. For example, the original version of the Uniform Parentage Act included a provision that established parentage for children born from donor insemination, but that provision applied only when a married woman received donor insemination with her husband’s consent. Thus, the law failed to resolve parentage issues for both single women who underwent donor insemination and their sperm donors. Similarly, some state laws authorize the enforcement of surrogate parenting agreements only if the intended mother is infertile or otherwise unable to carry a pregnancy to term without undue risk. These laws effectively deprive women who wish to enter into surrogacy arrangements for reasons other than infertility or pregnancy-related health risks of the ability to enter into legally enforceable agreements.

Of course, any favoring of infertile persons that results from laws limiting the enforceability of surrogacy contracts pales in comparison to the fundamental inequality between fertile persons and infertile persons. Such inequity flows from efforts, whether public or private, to limit access to ARTs based on the personal attributes of individuals seeking to employ transmission of genetic disability.


19. Id. The FDA’s rules, however, contain an exception that allows men who have had sex with men to make sperm donations to friends or family members. Id.

20. See UNIF. PARENTAGE ACT § 5(b) (1973).

21. See, e.g., FLA. STAT. ANN. § 742.15 (2005) (authorizing binding and enforceable gestational surrogacy contract only when the commissioning mother cannot physically gestate a pregnancy to term or the gestation would cause a risk to the physical health of the commissioning mother or fetus); see generally Robin Fretwell Wilson, Uncovering the Rationale for Requiring Infertility in Surrogacy Arrangements, 29 AM. J.L. & MED. 337 (2003).
ART services to conceive a child. Restrictions on access to ARTs create a double standard for becoming a parent. Those individuals who are able to conceive a child in the “usual and customary manner” are not subject to scrutiny regarding their fitness to parent, while those who are infertile may be blocked in their efforts to achieve parenthood by the fitness judgments of medical providers or policy makers. While some fitness judgments may be widely accepted, others may tend to reflect suspect biases, and any imposition of such judgments may create a slippery slope.

B. Access Inequality Based on Insurance Coverage and Finances

So far, this Article has focused on status inequalities in access to ART services: in other words, disparities in access based on personal characteristics of the individual seeking the services. Because of the high monetary cost, however, financial constraints may also produce serious disparities in the ability to receive ART services. A single cycle of in vitro fertilization typically costs approximately $10,000, and multiple cycles may be necessary to achieve a single pregnancy. Because most private insurance policies do not provide coverage for ART services, patients typically must bear the costs of the services themselves. As a result, financial inequality in access to ARTs is likely to track financial inequality in society. Those with high incomes or significant assets allowing them to incur debt are able to finance services, while those with lower incomes and more meager assets are not.

Moreover, an argument can be made that insurers’ decisions to exclude coverage for ART services produce inequality. If we understand ART

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22. See Gurmankin et al., supra note 5, at 62 (noting that a “dual standard for parenthood” exists).

23. See Budnick v. Silverman, 805 So.2d 1112, 1114 (Fla. Dist. Ct. App. 2002) (“Impregnation by the ‘usual and customary manner’ has been around long enough so that it does not constitute ‘reproductive technology.’”).

24. The term “infertile” refers to a larger group of persons than might be expected, since it does not necessarily connote an absolute inability to achieve pregnancy, but instead refers to a couple’s failure to conceive after a full year of engaging in sex without using contraception. See Lars Noah, Assisted Reproductive Technologies and the Pitfalls of Unregulated Biomedical Innovation, 55 Fla. L. Rev. 603, 612 (2003). Thus, some “infertile” persons may conceive without any medical intervention. I will argue below for an understanding of infertility that includes not only those medically unable to conceive, but also those socially unable to conceive. See infra note 29.

25. See Gurmankin et al., supra note 5, at 62.

26. See Noah, supra note 24, at 616.

27. Id.
services as a form of medical treatment, then it becomes apparent that infertile persons receive less complete coverage of their medical needs relating to reproductive health than do persons able to conceive without medical intervention. In the context of sex discrimination law, courts have recognized that insurance providing less comprehensive coverage for the medical needs of one sex than it provides for the other's constitutes a form of sex discrimination. Thus, exclusions of coverage for ARTs from otherwise comprehensive health insurance policies will have the effect of discriminating against persons who are infertile.

C. Issues in Responding to Access Inequality

When considering inequalities in accessing ARTs and the opportunities for parenthood that they allow, we can discern several dimensions of access inequality. First, we may be concerned that—among persons who are unable to conceive through sexual intercourse—inequalities in access may be based on financial status, health or disability status, marital status, or sexual orientation. Less obvious, but also disturbing, is the fact that screening practices by ART programs and exclusions of ART services from insurance coverage may function to relegate persons needing ARTs to an inferior status as compared to persons able to procreate “naturally.”

In the context of a symposium on the topic of regulating ARTs, we might begin to think about possible responses to inequalities that exist in access to ARTs. One possible response seems fairly straightforward: we could seek to enact or change laws, regulations, or professional policies in ways that assure greater equality of access to ART services unless some sound reason exists to justify existing inequalities. Of course, reaching agreement on what, if any, reasons might sufficiently excuse inequalities


29. In broad terms, individuals may be “unable” to conceive either as a result of a medical inability to conceive—what we typically think of as infertility—or as a product of “social infertility,” the inability to conceive through sexual intercourse. Socially infertile persons would include gays and lesbians who seek to become parents, as well as single, unattached heterosexuals who wish to be parents.

30. I bracket the term “naturally” because I anticipate that a ready response to my point about relegating medically and socially infertile persons to an inferior status will be that any inequality experienced by those persons is somehow natural and not the product of social practices. Without dismissing such a response, I simply hasten here to caution that historical practices of race and sex discrimination were long justified as being based on biological and therefore “natural” differences. We ought not simply accept, without careful scrutiny, “naturalness” justifications for inequality.
will be a challenge. Should we accept any restraints on access to ARTs? If so, may restraints permissibly be based on the financial status of those seeking services? On concerns about the future welfare of children who may result from the use of ARTs? On the desire to accommodate the religious or moral beliefs of providers of ART services?

While it seems improbable that any satisfactory single, one-size-fits-all answer exists to these questions, it nonetheless seems desirable to try to reach some agreement on an approach that can be applied across contexts to different types of access inequality, rather than addressing access problems piecemeal. Particularly with respect to denials of access based on personal attributes of those seeking services, it may be useful to think broadly about why any personal characteristics might disqualify one from relying on medical and technological assistance to achieve parenthood.

Admittedly, efforts to address particular status-based access problems have already been undertaken, with varying degrees of success. In some instances where provider screening has led to denials of access, laws prohibiting discrimination based on a particular trait, such as disability or sexual orientation, have been brought to bear. Similarly, reform of the laws granting legal protections to participants in assisted reproduction could eliminate the inequalities those legal structures produce. For example, the Uniform Parentage Act was revised in the year 2002 to make it clear that sperm donors would not be treated as the legal fathers of children resulting from donor insemination, regardless of the mother’s marital status.

By contrast, one step in the direction of a broader approach to addressing status inequality can be seen in a recent statement by the Ethics Committee of the American Society of Reproductive Medicine (“ASRM”). While accepting the basic premise that fertility programs should be free to withhold services based on a belief that prospective parents present “serious child-rearing deficiencies,” the statement recognizes the risks of unjustified discrimination and unsubstantiated judgments of parental fitness. To
minimize the risk of arbitrary, idiosyncratic, or illegal denials of services, the Ethics Committee recommends that ART programs should avoid ad hoc decisions and instead develop written policies and procedures calling for joint decision making by program providers. While we could debate whether the ASRM statement reflects a desirable balancing of the interests of infertile persons against medical providers’ autonomy and whether professional self-regulation is alone a sufficient response to access inequalities, the statement at least reflects an initial step towards provoking professional self-reflection regarding access inequalities.

Of course, changing providers’ screening practices will not mitigate the inequality that flows from excluding ART services from the coverage of private insurance policies. Proposals to require insurers to include coverage of fertility services in policies have been made and, in about a dozen states, adopted. While such laws may effectively eliminate the discriminatory impact that the exclusions have on infertile persons, they may indirectly increase the chances of another form of inequality. An argument frequently voiced against laws mandating that insurers cover particular benefits is that such laws raise the cost of health insurance and thereby price some employers and individuals out of the market for coverage. If mandated benefits laws do contribute to an increase in the number of people who have no insurance (an empirical question on which I stake no claim), then they will exacerbate the already deeply disturbing inequality in our society that exists between persons with and without health insurance coverage. Thus, we begin to see how enhancing equality along one axis (equalizing the coverage that fertile and infertile persons receive for their reproductive health needs) may diminish equality along another (magnifying disparities in access to health care generally between persons with insurance and those without). When confronting inequality tied to resource constraints, we must be particularly careful to avoid a “squeezing the balloon” effect.

III. UNBIASED TREATMENT IN RESOLVING DISPUTES RESULTING FROM THE USE OF ARTS

So far this Article has focused on inequities between individuals in their relative abilities to achieve access to ART services, and inequalities

35. Id. at 567.


37. On the other hand, some empirical evidence does indicate that providers transfer more embryos to patients in states that do not require insurance coverage. See Noah, supra note 24, at 626–27. If so, mandating coverage may reduce the substantial costs associated with multifetal pregnancies and multiple births. Moreover, decreasing the number of multiple births may lower the number of children with birth defects, thereby enhancing equality.
between infertile and fertile individuals in their abilities to freely achieve parenthood. In this Part, the focus shifts to scenarios that exist once ARTs have been used and something has gone awry. Perhaps, for example, circumstances have changed for the prospective parents, as circumstances often do, or perhaps, more dramatically, a provider of ART services has made a mistake that leads to confusion of parentage. When the use of ARTs leads to disputes between the participants in the process, the law is often deployed to resolve disputes or clarify relationships. The extent to which the legal frameworks employed display biases presents another dimension of potential inequality worthy of exploration.

One type of dispute that has resulted in litigation arises when couples employ IVF to create embryos and the two intending parents disagree over whether to continue the reproductive process before an attempt at implantation occurs. Courts called upon to resolve these “frozen embryo” disputes between the intended mother and intended father struggle with how to balance the competing interests at stake, and commentators have suggested how this struggle implicates equality concerns.

For example, an article written by Professor Judith Daar recognizes the potential for inequality between fertile and infertile women lurking in these cases and proposes an approach to resolving disputes regarding the disposition of frozen embryos that seeks to equalize the reproductive freedom of fertile and infertile women early in the pregnancy process. Daar argues that courts’ presumption in favor of the party seeking to avoid procreation may leave infertile women who have contributed to the creation of frozen embryos with less reproductive autonomy than their physically pregnant counterparts, who have sole authority to determine whether to continue the reproductive process. To avoid this inequality, Daar proposes...
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an approach that would give infertile women control over embryos for a limited period of time following conception.  

Daar’s article makes careful arguments and presents a thoughtful proposal about how to ensure equality of reproductive freedom for fertile and infertile women, but it is less attentive to an alternative inequality concern. Gender equality provides a different lens for examining a point in the procreative process at which no physical pregnancy exists, so that issues of female bodily integrity and autonomy are less salient. One might argue that, rather than comparing women who have gone through the IVF process and created unimplanted embryos to women in the first trimester of a physical pregnancy and then proposing equal treatment of these two groups, one should instead compare these women to men who have gone through the same process. Thus, one might argue that the egg contributor and sperm contributor are similarly situated prior to implantation and therefore should be treated equally, with neither being favored on the basis of gender, in any legal framework for resolving these disputes. This approach essentially reflects a “sameness” approach to advancing gender equality, and is arguably consistent with a gender-neutral allocation of parental decision-making rights regarding born children.

By contrast, Professor Ruth Colker suggests an alternative approach, reflecting a “difference” model of gender equality, to dealing with frozen embryo disputes. Highlighting the greater stress and physical invasion endured by women in the IVF process and the reality that women have a limited supply of eggs and face declining fertility over time, Colker proposes that courts facing frozen embryo cases should presumptively award embryos to women who wish to implant them. In this view, achieving an equitable result requires “recognizing the ways in which men and women are not similarly situated with respect to reproduction.”

My point here is not to endorse one approach to resolving frozen

| 42 | Id. at 467–69. |
| 43 | See Ruth Colker, Pregnant Men Revisited or Sperm is Cheap, Eggs are Not, 47 Hastings L.J. 1063, 1068 (1996) (stating: “When a case does not involve a pregnant person, then the rights protected by Roe are not implicated.”). |
| 44 | The “sameness” versus “difference” debate among feminists regarding the appropriate approach to advancing gender equality is described well in Martha Albertson Fineman, Feminist Legal Theory, 13 Am. U. J. Gender Soc. Pol’y & L. 15–19 (2005). |
| 46 | See generally Colker, supra note 43. |
| 47 | Id. at 1066. |
embryo disputes over another; instead, it is to illustrate how the equality issues embedded in a particular type of ART-related dispute may be framed in multiple ways and come into tension. Courts, policy makers, and commentators who are attentive to equality issues should think carefully about what weight to give to biological imbalances between men and women in the reproductive process, and whether gender-neutral or gender-focused decision tools will best further equality. For example, in the different context of resolving questions about the legal parentage of children already born through the use of ARTs, Professor Marjorie Shultz has argued that gender-neutral criteria are necessary to counterbalance men’s relative weakness in nurturing offspring in the reproductive process and thereby to reinforce men’s decisions to care for children. “By adopting a sex-neutral criterion such as intention, the law would partially offset the biological disadvantages men experience in accessing child-nurturing opportunities.”

Nor is gender equality necessarily the preeminent challenge in crafting rules for establishing parentage following ART mistakes. In her contribution to this Symposium and elsewhere, Professor Leslie Bender has demonstrated how courts’ analyses regarding parentage in cases where embryos have been misimplanted have been skewed by race-biased and sex-biased assumptions.

Thus, when policymakers and judges are called upon to allocate decision-making authority or determine parentage in disputes that arise following the use of ARTs, they should be mindful of the variety of ways that the equality of the parties may be at stake.

IV. ISSUES OF SOCIAL INEQUALITY RAISED BY TRAIT SELECTION PRACTICES

The preceding Parts have suggested how equality issues may materialize when individuals seek technological assistance in reproduction—focusing first on participants’ access to ART services and then on how the law resolves disputes among participants arising from the provision of services. This Part, by contrast, concentrates not on whether participants in the ART process are treated equally, but instead on the risk that using ARTs may contribute more broadly to material inequality in the conditions of persons’ lives. This risk exists to the extent that the use of ARTs is coupled with parental selection of traits for the prospective child. Trait selection practices in current use raise the concern, but the equality


49. Id. at 303.

50. See generally Leslie Bender, Genes, Parents, and Assisted Reproductive Technologies: ARTs, Mistakes, Sex, Race & Law, 12 Colum. J. Gender & L. 1 (2003).
A. Trait Selection Practices Today

Several practices, including prenatal genetic screening, preimplantation genetic diagnosis, and sperm sorting, are available to prospective parents who seek to exercise some control over whether to bear a child with particular traits. Among these, prenatal genetic screening coupled with abortion is, in theory, an option in any pregnancy, whether or not the pregnancy is achieved by use of ARTs. By contrast, preimplantation genetic diagnosis is conducted following IVF and prior to implantation. These two trait selection methods simply allow parents to decide—once a particular trait of a fetus or embryo has been identified—whether to continue or terminate the reproductive process with respect to that fetus or embryo. Sperm sorting techniques, on the other hand, seek to enable prospective parents to choose the sex of their offspring prior to conception and require the use of (at least) artificial insemination.51

Some have argued that trait selection practices in current usage may increase inequality in our society by allowing parents to select the sex of their offspring or to select against disability in their offspring. For example, Adrienne Asch, one of the most prominent and thoughtful voices articulating the disability rights critique of prenatal genetic testing, expresses concern about the message that prenatal screening and selective abortion send regarding the dignity and worth of persons with the selected-against disabilities, and the resulting devaluation of persons with disabilities in our society.52 She argues: “[R]esearchers, professionals, and policymakers, who uncritically endorse testing followed by abortion, act from misinformation about disability, and express views that worsen the situation for all people who live with disabilities now or in the future.”53 The concern exists because of the relative speed with which prenatal testing practices have proliferated in our society and the accompanying lack of careful thought regarding its implications for social equality.

Sex selection practices by prospective parents raise similar concerns...
regarding gender equality. These concerns are relatively muted in the United States today, where reliable sex selection techniques remain fairly uncommon and appear to be employed primarily for purposes of “family balancing” (i.e., seeking the presence of both female and male children in a family).\textsuperscript{54} In other societies, such as India and China, where a much greater cultural emphasis is placed on bearing male heirs, sex selection techniques result in the aborting of many thousands—perhaps millions—of female fetuses each year.\textsuperscript{55} In these contexts, sex selection techniques raise stark concerns about the material inequality of women in a patriarchal society.\textsuperscript{56}

While epidemic abortions of female fetuses in some societies raise obvious gender equality concerns, they also produce tension among advocates of greater gender equality as to the best strategy for addressing the inequality of women. While many Western feminists assert that maintaining reproductive choice (and hence the option of sex selective abortions) is of central concern for women’s social equality, feminists in India have decried selective abortion of female fetuses and have successfully lobbied for legal prohibitions on what they consider further oppression of women.\textsuperscript{57} Thus, even those sharing concerns about the ramifications of trait selection practices for the social equality of persons bearing the traits commonly selected against may have difficulty agreeing on how best to alleviate that inequality.

\textbf{B. Trait Selection Practices on the Horizon}

Today, prospective parents are fairly limited in the choices they can make to select the traits of their offspring. They can seek to identify certain genetic traits either of a fetus during pregnancy or of an unimplanted embryo following IVF and then choose whether to continue the reproductive process with respect to that fetus or embryo. In other words, the stance of prospective parents today is largely reactive\textsuperscript{58} to information


\textsuperscript{56}. See Farhat Moazam, Feminist Discourse on Sex Screening and Selective Abortion of Female Fetuses, 18 BIOETHICS 205, 206 (2004); see also Uma Girish, For India’s Daughters, A Dark Birth Day, CHRISTIAN SCIENCE MONITOR, Feb. 9, 2005, available at http://www.csmonitor.com/2005/0209/p1ls01-wosc.html.

\textsuperscript{57}. See Moazam, supra note 56, at 206.

\textsuperscript{58}. Sperm sorting, by contrast, presents an opportunity for prospective parents to influence, rather than simply react to, a trait of their desired offspring. See id.
about a limited set of traits. As scientists proceed to identify the function of an ever greater number of genes, however, it is likely that parents in the near future will have access to information about far more genetic traits. More fundamentally, the predicted (but less imminent) development of gene therapy technologies that would permit correction of disease- or disability-causing genes and enhancement of other genetic characteristics, such as intelligence, athleticism, or behavioral traits, may permit prospective parents to manipulate the genetic makeup of their offspring. The availability of such technologies, particularly enhancement technologies, will pose both risks and opportunities for social equality.

We cannot today predict with confidence whether a future capacity to enhance genetic characteristics will lead to a more or less equal society, but a small cottage industry of scholars and commentators has already been busy exploring the various potential ramifications of genetic interventions, among them the implications for equality and justice in society. While this Article does not seek to recount the extensive discussions of the distributive justice implications of genetic treatment and enhancement, even a cursory review of the literature reveals significant disagreements. Some scholars suggest the possibility that genetic interventions may be used to improve the functioning and lot of those who would otherwise find themselves at the bottom of the social and economic ladder. In this view, trait selection by genetic enhancement or treatment technologies may lead to a more just society by, in Rawlsian terms, improving the position of those least well off. Also voiced, however, is a less sanguine view highlighting our society’s current inability to ensure equitable access to existing health care technologies and predicting that genetic interventions—once developed—will be financially accessible only to those individuals who are already the most well off.

59. For a thought-provoking and influential book-length discussion of these issues by a group of leading bioethicists, see ALLEN BUCHANAN ET AL., FROM CHANCE TO CHOICE: GENETICS AND JUSTICE (2000). For a sampling from the burgeoning literature on this question, see Michael H. Shapiro, Does Technological Enhancement of Human Traits Threaten Human Equality and Democracy?, 39 SAN DIEGO L. REV. 769 (2002); Mark A. Hall, Genetic Enhancement, Distributive Justice, and the Goals of Medicine, 39 SAN DIEGO L. REV. 669 (2002); Arti K. Rai, Genetic Interventions: (Yet) Another Challenge to Allocating Health Care, 39 SAN DIEGO L. REV. 657 (2002); Peter H. Huang, Herd Behavior in Designer Genes, 34 WAKE FOREST L. REV. 639 (1999); Kean Birch, Beneficence, Determinism and Justice: An Engagement with the Argument for the Genetic Selection of Intelligence, 19 BIOETHICS 12 (2005).

60. See, e.g., Shapiro, supra note 59, at 813 (pointing out the potential of technological enhancement “to even out nature’s hierarchical roughness”).

61. Debate also exists with respect to whether there exists a meaningful moral distinction between “treatment” and “enhancement.” See BUCHANAN ET AL., supra note 59, at 104–56.

62. See, e.g., Shapiro, supra note 59, at 809 (suggesting that distributing enhancement
genetic intervention technologies will have the effect of exacerbating those inequalities and contributing to a less just society. In this view, society faces the prospect that the extant financial disparities in access to ARTs discussed in Part II will simply be replicated with respect to the allocation of gene therapy services, with an intensified effect when genetic alterations are at issue. If the problem is financial disparities in access to trait selection services, then an equality-enhancing cure is less than clear. The alternative of providing funding to ensure equality of access regardless of wealth seems sadly laughable in light of our society’s current unwillingness to provide equality of access to even basic health care services. And the alternative of regulating or limiting the availability of trait selection services in order to avoid the material inequality that may flow from their free availability on the market may act to limit the exercise of individual liberties, and perhaps produce inequalities of access along other axes.

Certainly, this sketching of views regarding the possible equality and justice implications of future trait selection practices does not begin to plumb the depth of the issues that genetic intervention technologies will pose. However, it suggests yet another dimension of the equality issues that ARTs are likely to pose in the near future. Questions about ramifications of trait selection technologies for social equality must be raised and addressed carefully while we are still scanning the horizon.

V. CONCLUSION

A central purpose of this Article has been to propose a framework for thinking about the various ways in which the development and proliferation of ARTs may raise issues of inequality, whether they be questions of material and social inequality or questions of unequal treatment at the hands of the state or private actors. Developing this framework, however, also serves to highlight the potential for tensions between various dimensions of equality. For example, efforts to expand and equalize the exercise of individual liberties may be at odds with attempts to address social inequality and avoid its exacerbation by regulating or otherwise decreasing trait selection practices. Similarly, as the discussion of the frozen embryo cases demonstrates, the possibility exists that the equality issue raised in a particular context may be characterized in competing terms.

While precluding neat answers to the equality questions that ARTs raise, recognition of these tensions presents the opportunity for scholars and policy makers in this field to think carefully about whether any proposed regulation of ARTs might accommodate competing equality concerns or characterizations of equality. If competing equality concerns cannot be
accommodated, the challenge becomes to assess which aspect of equality it is most important to advance in the particular setting. In sum, my hope is that this brief examination will stimulate scholars, policy makers, and service providers in this field to adopt a wide-angle view of the many dimensions of equality at play in the provision and regulation of ARTs.