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Thinking Outside the Box: Preimplantation Genetic Diagnosis, In Vitro Fertilization, and Disability Screening in the Wake of *Box v. Planned Parenthood*

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**THINKING OUTSIDE THE *BOX*: PREIMPLANTATION
GENETIC DIAGNOSIS, *IN VITRO* FERTILIZATION,
AND DISABILITY SCREENING IN THE WAKE OF
*BOX V. PLANNED PARENTHOOD***

Christian J. Sorensen*

ABSTRACT

A circuit split has recently emerged regarding the constitutionality of state laws banning trait-selective abortions, i.e., abortions based on fetal characteristics like disability. Much of the dialogue surrounding trait selection has revolved around whether such abortions are eugenic in nature and whether they could be regulated differently than other forms of abortion—under either *Roe* and *Casey* or the post-*Roe* regime ushered in by *Dobbs*. However, the same concerns underlying this debate over eugenic abortions apply with equal force to preimplantation genetic diagnosis (PGD) coupled with *in vitro* fertilization. Because PGD seems certain to be the next battlefield in the war over reproductive rights, this Article wades into the debate over trait selection and eugenics and analyzes whether prospective parents would have a substantive due process right to use PGD to screen against disabilities or genetic conditions.

In doing so, this Article addresses and answers several interrelated questions: how to define the right to use PGD; whether the right, as defined, is fundamental; and which government regulations could survive strict scrutiny were the right found to be fundamental? And this Article argues that courts should define the right broadly; conclude that it is fundamental based on Supreme Court precedent, our nation's history and traditions, and international recognition of the right; and strictly scrutinize laws limiting access to PGD while nonetheless upholding certain forms of regulation like expert agencies that gatekeep access to the technology, informed consent requirements, and waiting periods. Finally, this Article explains how this approach will best safeguard parental procreative autonomy, vindicate governmental interests in preventing eugenics and discrimination, and enable courts to avoid difficult line-drawing exercises.

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INTRODUCTION

The past decade has witnessed the proliferation of state laws banning abortions that are carried out for particular reasons—what Professor Melissa Murray has described as “trait-selection” laws.¹ The constitutionality of such laws, which typically ban abortions motivated by fetal race, sex, or disability, has not yet been evaluated by the Supreme Court, which, in *Box v. Planned Parenthood of Indiana & Kentucky, Inc.*, opted not to grant certiorari to this specific issue but to instead await further percolation.² Justice Thomas, however, wrote separately to express his view that such laws are a constitutional means of furthering a state’s compelling interest in preventing eugenics.³ Other courts have subsequently seized upon his concurrence, which has arguably “planted the seeds for what may precipitate a major transformation in American constitutional law,”⁴ resulting in a circuit split—with the Seventh and Eighth Circuits striking down the challenged laws, and the Sixth upholding it.⁵ Arkansas has already appealed the decision of the Eighth Circuit, and though the Supreme Court granted the State’s cert petition only to vacate the judgment and remand the case for further consideration in light of *Dobbs*,⁶ it may not be too long before the issue resurfaces and Justice Thomas has the chance to fully tackle this question on the merits.⁷

¹ Melissa Murray, *Race-ing Roe: Reproductive Justice, Racial Justice, and the Battle for Roe v. Wade*, 134 HARV. L. REV. 2025, 2027, 2028 n.6 (2021).

² *Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1781–82 (2019).

³ *Id.* at 1783–93 (Thomas, J., concurring).

⁴ Murray, *supra* note 1, at 2026.

⁵ See Melissa Murray, *Opinion: A New, Racialized Assault on Abortion Rights Is Headed to the Supreme Court*, WASH. POST (Apr. 18, 2021), <https://www.washingtonpost.com/opinions/2021/04/18/new-racialized-assault-abortion-rights-is-headed-supreme-court/> [<https://perma.cc/DNW4-6258>]; Mary Anne Pazanowski, *Arkansas Asks SCOTUS to Review Down Syndrome Abortion Law*, BLOOMBERG L. (Apr. 15, 2021), <https://news.bloomberglaw.com/us-law-week/arkansas-asks-scotus-to-review-down-syndrome-abortion-law> [<https://perma.cc/8CE9-ESGS>].

⁶ *Rutledge v. Little Rock Family Planning Servs.*, 2022 WL 2347570, at *1 (U.S. June 30, 2022).

⁷ See Murray, *supra* note 5.

But abortion is not the only battlefield in the war over reproductive rights. In particular, the stage is set for preimplantation genetic diagnosis (PGD) paired with *in vitro* fertilization (IVF) to be the next skirmish. This technology, much like abortion paired with prenatal diagnosis, can also enable trait selection based on race, sex, disability, and even more.⁸ What abortion and prenatal screening enable after pregnancy has begun, IVF and PGD enable prior to its initiation, and they allow an even greater degree of parental choice regarding offspring characteristics.⁹ Because these medical treatments can achieve similar outcomes, the same concerns that motivated Justice Thomas's *Box* concurrence (and subsequent appellate decisions citing it) are relevant to PGD—"preventing [procreation-related medical treatments] from becoming . . . tool[s] of modern-day eugenics."¹⁰ As a result, the next logical step for states concerned with parents committing reproductive discrimination in the wake of advancements in genetic screening is to target PGD and IVF, just as they have targeted trait selection in the abortion context.

Several other jurists have already noted that possibility. For instance, Judge Erickson has remarked how "genetic manipulation" is an imminent possibility "either in the laboratory or by termination of pregnancies."¹¹ Judge Easterbrook has also observed the connection between IVF and abortion, claiming that states "may regulate th[e] process [of controlling offspring genetics] when conception is by *in vitro* fertilization" to argue that it would be anomalous for states to lack such regulatory power in the abortion context.¹²

Judge Easterbrook's suggestion notwithstanding, state regulation of PGD, the uses for which IVF is employed, or access to the technology is practically non-existent.¹³ But this is not for want of trying. State efforts at restricting IVF's availability (albeit often incidentally) have already been underway, with over a dozen (including Georgia, South Carolina, Arizona, Virginia, and Oklahoma¹⁴) having sought "to pass 'personhood' laws that would grant a single-cell fertilized egg the same legal status and legal rights as a grown woman" and that could render IVF (which involves the disposal of fertilized eggs) illegal.¹⁵ While the majority of such

⁸ See *infra* Section II.C.

⁹ See *infra* Section II.C.

¹⁰ *Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1783 (2019) (Thomas, J., concurring).

¹¹ *Little Rock Family Planning Servs. v. Rutledge*, 984 F.3d 682, 694 (2021) (Erickson, J., concurring) (emphasis added).

¹² *Planned Parenthood of Ind. & Ky., Inc. v. Comm'r of Ind. St. Dep't of Health*, 917 F.3d 532, 536 (7th Cir. 2018) (Easterbrook, J., dissenting from denial of rehearing en banc).

¹³ See *infra* note 26 and accompanying text.

¹⁴ *Resolve's Policy on "Personhood" Legislation*, RESOLVE (Apr. 2012), <https://resolve.org/resolves-policy-personhood-legislation/> [<https://perma.cc/NQK5-G3LS>].

¹⁵ Amy Klein, *Where Amy Coney Barrett Stands on IVF*, GLAMOUR (Oct. 14, 2020), <https://www.glamour.com/story/where-amy-coney-barrett-stands-on-ivf> [<https://perma.cc/WG6U-Y2VD>].

bills (numbering over one hundred) have thus far been defeated, more are proposed each year.¹⁶ In early 2021 alone, states like Montana¹⁷ and Arizona¹⁸ sought to pass personhood laws that would criminalize both abortion and PGD/IVF. And Louisiana even has one such law on its books, designating the fetuses used in IVF as juridical persons that cannot be intentionally destroyed if viable and cannot be used for research or commercial purposes, as well as imposing various other substantive duties upon medical facilities performing IVF.¹⁹ What is more, the Supreme Court's overturning of *Roe v. Wade* in *Dobbs v. Jackson Women's Health Organization*²⁰ has caused "trigger laws" in over a dozen states to spring into effect; these laws not only ban abortions, but they may also curtail IVF and PGD access, depending on how broadly terms like "abortion," "unborn child," etc., are defined and interpreted; whether life is defined as beginning at fertilization or instead the implantation of a fertilized embryo in the womb; and whether IVF and similar technologies are expressly exempted.²¹

Interest in IVF and its uses has further heightened recently due to Justice Barrett's confirmation to the Supreme Court. While a law professor at Notre Dame, Justice Barrett was a signatory to a 2006 newspaper ad sponsored by St. Joseph County Right to Life, a group advocating that life begins at fertilization and that IVF should be criminalized because it involves the discarding, freezing, or donation of unused embryos.²² Shortly before her nomination, she also joined Judge Easterbrook's opinion dissenting from denial of rehearing en banc, in which Judge Easterbrook asserted that

¹⁶ *Opposing Personhood: RESOLVE Fights to Keep Fertility Medical Treatments Legal in the U.S.*, RESOLVE (2020), <https://resolve.org/get-involved/become-an-advocate/our-issues/opposing-personhood/> [https://perma.cc/MPL8-QBXT].

¹⁷ See Iris Samuels, *Montana House Advances 'Personhood' Bill to Limit Abortions*, AP (Mar. 18, 2021), <https://apnews.com/article/bills-montana-810bee54e0b6b6fd5795414a00e10c9e> [https://perma.cc/27EC-TZL3].

¹⁸ See *Arizona Legislature Passes Fetal Personhood Bill*, DLCC (Apr. 23, 2021), <https://dlcc.org/press/arizona-legislature-passes-fetal-personhood-bill/> [https://perma.cc/8PGG-UVSA].

¹⁹ See LA. STAT. ANN. §§ 9:121–9:133 (2020).

²⁰ 142 S. Ct. 2228 (2022).

²¹ See, e.g., ASRM CTR. FOR POL'Y & LEADERSHIP, *State Abortion Trigger Laws: Potential Implications for Reproductive Medicine* (July 1, 2022), https://www.asrm.org/globalassets/asrm/asrm-content/news-and-publications/dobbs/cpl-report_impact-of-state-trigger-laws-on-reproductive-medicine_final.pdf [https://perma.cc/YN5K-D3NH]; Erin Heidt-Forsythe, Nicole Kalaf-Hughes & Heather Silber Mohamed, *Roe Is Gone. How Will State Abortion Restrictions Affect IVF and More?*, WASH. POST (June 25, 2022), <https://www.washingtonpost.com/politics/2022/06/25/dodds-roe-ivf-infertility-embryos-egg-donation/> [https://perma.cc/7D8R-FPP4]; Andrew Joseph, *If Roe Is Overturned, the Ripples Could Affect IVF and Genetic Testing of Embryos, Experts Warn*, STAT (June 6, 2022), <https://www.statnews.com/2022/06/06/roe-v-wade-preimplantation-genetic-testing-ivf-clinics/> [https://perma.cc/LW6J-NXD2].

²² See Stephanie Kirchgaessner, *Revealed: Amy Coney Barrett Supported Group That Said Life Begins at Fertilization*, GUARDIAN (Oct. 1, 2020), <https://www.theguardian.com/us-news/2020/oct/01/amy-coney-barrett-supported-group-fertilization> [https://perma.cc/NFD6-NNTJ].

states can validly prohibit genetic screening as part of IVF.²³ During her confirmation, Justice Barrett, when directly asked if the criminalization of IVF would be constitutional, stated that she was unable to “answer questions in the abstract.”²⁴ Some have thus expressed concern that Justice Barrett’s appointment signals that the Court may not find objectionable (especially post-*Dobbs*) any laws that, whether intentionally or inadvertently, define “life” or “abortion” in such a way as to sweep up the embryos used as part of IVF and PGD, such that states could freely criminalize or regulate both abortion and IVF to prevent the destruction of fetuses and embryos.²⁵

In the wake of these developments regarding IVF and PGD, and with the almost complete absence of regulations addressing this technology,²⁶ legal scholars have fairly recently begun addressing some of the issues they pose. Their scholarship has often focused on how states could regulate or ban certain uses of IVF and whether such prohibitions would implicate fundamental rights protected by substantive due process.²⁷ Accordingly, a number of articles have discussed PGD and substantive due process in the context of sex selection,²⁸ selecting for nontherapeutic characteristics like intelligence or height,²⁹ selecting for expected sexual orientation,³⁰ and selecting

²³ See *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of Ind. St. Dep’t of Health*, 917 F.3d 532, 536 (7th Cir. 2018) (Easterbrook, J., dissenting from denial of rehearing en banc).

²⁴ Andrea Michelson, *Experts Say Amy Coney Barrett’s Nomination Could Threaten IVF. Here’s Why.*, BUS. INSIDER (Oct. 10, 2020), <https://www.businessinsider.com/amy-coney-barretts-nomination-could-threaten-ivf-experts-explain-2020-10> [<https://perma.cc/N8ST-6BHG>].

²⁵ See Ellen Trachman, *Is Amy Coney Barrett the Beginning of the End for IVF?*, ABOVE L. (Oct. 7, 2020, 11:13 AM), <https://abovethelaw.com/2020/10/is-amy-coney-barrett-the-beginning-of-the-end-for-ivf/?rf=1> [<https://perma.cc/Z6VT-KYUS>]; Klein, *supra* note 15.

²⁶ See, e.g., Nathalie Antonios, *Preimplantation Genetic Diagnosis*, EMBRYO PROJECT ENCYCLOPEDIA (Mar. 24, 2011), <https://embryo.asu.edu/pages/preimplantation-genetic-diagnosis> [<https://perma.cc/6YU9-2BF4>] (“no present federal or state laws to regulate the use of PGD”); Michelle Bayefsky, *Who Should Regulate Preimplantation Genetic Diagnosis in the United States?*, 20 AMA J. ETHICS 1160, 1160 (2018) (“no legal limitations on the technique’s use”).

²⁷ See *infra* notes 28–31 and accompanying text.

²⁸ See, e.g., Rachel E. Remaley, “The Original Sexist Sin”: *Regulating Preconception Sex Selection Technology*, 10 HEALTH MATRIX 249, 250–51 (2000); Jason C. Roberts, *Customizing Conception: A Survey of Preimplantation Genetic Diagnosis and the Resulting Social, Ethical, and Legal Dilemmas*, 1 DUKE L. & TECH. REV. 12, at *14–26 (2001); John A. Robertson, *Genetic Selection of Offspring Characteristics*, 76 B.U. L. REV. 421, 42123 (1996); Lindsey A. Vacco, *Preimplantation Genetic Diagnosis: From Preventing Genetic Disease to Customizing Children. Can the Technology Be Regulated Based on the Parents’ Intent?*, 49 ST. LOUIS L.J. 1181, 1218 (2005).

²⁹ See, e.g., Vicki G. Norton, *Unnatural Selection: Nontherapeutic Preimplantation Genetic Screening and Proposed Regulation*, 41 UCLAL. REV. 1581, 1597 (1994); Roberts, *supra* note 28; Robertson, *supra* note 28, at 422; Vacco, *supra* note 28, at 1187.

³⁰ See Louis Paonessa, *Straightening Your Heir: On the Constitutionality of Regulating the Use of Preimplantation Technologies to Select Preembryos or Modify the Genetic Profile*

for, rather than against, genetic conditions or disabilities, a phenomenon some call “intentional diminishment.”³¹ However, while several academics have addressed the ethical concerns associated with the use of PGD and prenatal testing to screen for disabilities,³² little scholarship has examined whether selection on the basis of disability or genetic disorder would be protected by substantive due process. And this absence is significant, as disability screening—especially for Down Syndrome—has been the focal point of many recent judicial opinions dealing with trait selection in the abortion context.³³ This Article is the first to fill that gap and to reckon with the significance of Justice Thomas’s *Box* concurrence, subsequent appellate decisions, and *Dobbs* for the right to use PGD and IVF for such screening.

Thereof Based on Expected Sexual Orientation, 33 RUTGERS COMPUT. & TECH. L.J. 331, 332 (2007).

³¹ See, e.g., Robertson, *supra* note 28, at 465–66. Although this Article refers to selection “on the basis of disability or genetic condition,” it will focus on the use of PGD and IVF to select *against* embryos affected by an undesired condition, rather than on intentional diminishment, which implicates different and additional concerns including, inter alia, the potential harm to children who might otherwise have been born “healthy”; a child’s “right to an open future”; and the cultural and identity implications of certain conditions like deafness. See, e.g., *id.*; I. Glenn Cohen, *Intentional Diminishment, the Non-identity Problem, and Legal Liability*, 60 HASTINGS L.J. 347, 347–49 (2008); Judith F. Daar, *ART and the Search for Perfectionism: On Selecting Gender, Genes, and Gametes*, 9 J. GENDER RACE & JUST. 241, 263–65 (2005); Taylor Irene Dudley, *A Fair Hearing for Children*, 9 WHITTIER J. CHILD & FAM. ADVOC. 341, 342–43 (2010); Alexander D. Wolfe, *Wrongful Selection: Assisted Reproductive Technologies, Intentional Diminishment, and the Procreative Right*, 25 T.M. COOLEY L. REV. 475, 485 (2008). Due to these unique concerns and the plethora of scholarship addressing them, intentional diminishment is outside the scope of this Article.

³² See, e.g., Adrienne Asch, *Disability Equality and Prenatal Testing: Contradictory or Compatible?*, 30 FLA. ST. U. L. REV. 315, 315–16 (2003); Andrew B. Coan, *Is There a Constitutional Right to Select the Genes of One’s Offspring?*, 63 HASTINGS L.J. 233, 235 (2011); Janet L. Dolgin, *Method, Mediations, and the Moral Dimensions of Preimplantation Genetic Diagnosis*, 35 CUMB. L. REV. 519, 519 (2004); Michael J. Malinowski, *Choosing the Genetic Makeup of Children: Our Eugenics Past—Present, and Future?*, 36 CONN. L. REV. 125, 129–30 (2003); Roberts, *supra* note 28, at 1; Robertson, *supra* note 28, at 421–22.

³³ See *Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1790 (2019) (Thomas, J., concurring) (describing the “high rates” of abortion following a Down syndrome diagnosis in Europe and the United States); *Preterm-Cleveland v. McCloud*, 994 F.3d 512, 538–40 (6th Cir. 2021) (en banc) (Griffin, J., concurring) (describing the “eugenicist practices concerning the prenatal Down Syndrome population” (internal citation omitted)); *Little Rock Family Planning Servs. v. Rutledge*, 984 F.3d 682, 693 (2021) (Erickson, J., concurring) (“The great glory of humanity is its diversity. . . . Children with Down syndrome share in each of these fundamental attributes of humanity.”); *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of Ind. St. Dep’t of Health*, 888 F.3d 300, 315 (7th Cir. 2018) (Manion, J., concurring in the judgment in part and dissenting in part) (“Race, sex, and disability-selective abortions are obviously all problematic, but I will focus here on the particular problem of abortion due to a diagnosis of Down syndrome.” (footnote omitted)).

Overall, this Article focuses on the use of PGD to screen for disabilities or genetic conditions and addresses how such a right would be defined, the basis for recognizing such a right, and which restrictions could pass constitutional muster under the strict scrutiny standard. First, Part I provides a brief overview of the science behind PGD and IVF and discusses the controversial ways in which the technology has been employed. Part II demonstrates, via a discussion of recent cases dealing with laws banning “eugenic” abortions, how the increasing regulation of trait selection in the abortion context will inevitably bleed into the PGD context. Next, Part III identifies the appropriate level of abstraction at which the putative right should be defined and tackles the ongoing debate over whether trait selection can accurately be characterized as eugenics. Having settled on a broad definition of the relevant liberty interest (the right to influence offspring characteristics pre-birth), this Article goes on in Part IV to illustrate how the Court’s precedents establishing a right to procreative liberty; the history in our country of influencing offspring characteristics after conception but before birth; and the international recognition of a right to engage in genetic screening all counsel in favor of recognizing a fundamental right. Part V then discusses potential restrictions that could withstand constitutional challenge were the right found to be fundamental. Finally, a conclusion follows.

I. PGD, ITS USES, AND ITS CONTROVERSIES

A. *How PGD Works*

IVF is an assisted reproductive technology (ART) whereby physicians stimulate a patient’s ovaries in order to collect and then mature ovarian follicles.³⁴ Subsequently, the follicles are used to collect oocytes, the ovarian cells that can divide into ova, mature female reproductive cells.³⁵ These oocytes are then artificially inseminated with sperm from a donor or partner, resulting in the formation of embryos that are then grown *in vitro*, i.e., in a test tube, for several days, after which a small number of the most promising embryos are transferred to the patient’s uterus, ideally resulting in a pregnancy that then proceeds to term.³⁶

However, prior to the transfer of the embryos to the uterus, it is possible to perform two types of genetic screening. Preimplantation genetic screening (PGS) involves screening specifically for chromosomal aneuploidy (abnormal chromosome numbers), a type of abnormality that is associated with Down Syndrome and several other disorders and that may affect embryonic viability.³⁷ PGD involves testing for

³⁴ See Paul R. Brezina, Raymond W. Ke & William H. Kutteh, *Preimplantation Genetic Screening: A Practical Guide*, 7 CLINICAL MED. INSIGHTS 37, 37–42 (2013).

³⁵ See *id.*

³⁶ See *id.*

³⁷ See *id.*

specific genetic disorders like cystic fibrosis.³⁸ Under either procedure, physicians will generally extract one or two cells from the developing, eight-cell embryo and then test their DNA, allowing them to identify potential abnormalities or diseases.³⁹ The genetic sequences of the embryos can thus determine which are transferred to the patient's uterus to continue the IVF process.⁴⁰

B. Why PGD Is Important

Together, PGD⁴¹ and IVF allow for the implantation of embryos with specific traits chosen by the genetic parents. This process is often an undeniably positive thing, enabling couples at risk of transmitting genetic disorders to conceive children who will not inherit such harmful conditions.⁴² Therefore, parents can have biological children without passing on disorders capable of drastically reducing their quality or length of life, like cystic fibrosis, sickle cell anemia, Tay-Sachs, and more.⁴³ In addition to allowing parents to reproduce using their own genetic materials without passing along harmful medical conditions, PGD is also a vital tool for avoiding chromosomal and genetic abnormalities associated with advanced maternal age, as well as for increasing the likelihood of procreation for patients who have suffered from recurrent miscarriages or IVF failure.⁴⁴

PGD is thus an ART of vital importance. For many parents—those with genetic conditions that run in the family, who wish to have children later in life, or who have dealt with miscarriages or unsuccessful IVF treatments in the past—PGD can be all-or-nothing. Take Tay-Sachs, for instance. If both parents are carriers of the relevant gene, there is a 25% chance that their child will be born with a “cruel”

³⁸ *See id.*

³⁹ *See id.*

⁴⁰ *See id.*

⁴¹ Hereinafter, this Article will use the term “PGD” to refer to both PGD and PGS. Moreover, while this Article focuses on PGD and IVF, due to their present use in humans and the accompanying, ongoing controversy, the featured problems and potential solutions should apply with equal force to other ARTs, both current and future, that enable parents to select offspring characteristics and that subsequently raise similar legal and ethical questions. One salient example is *in vitro* gametogenesis, which enables the reprogramming of body cells into sex cells, dramatically expanding reproductive possibilities for infertile couples, same-sex couples, and theoretically even sole individuals. *See* Lauren Notini, Christopher Gyngell & Julian Savulescu, *Drawing the Line on In Vitro Gametogenesis*, 34 *BIOETHICS* 1, 1–2 (2019).

⁴² *Preimplantation Genetic Diagnosis: PGD*, AM. PREGNANCY ASS'N, <https://americanpregnancy.org/getting-pregnant/preimplantation-genetic-diagnosis/> [<https://perma.cc/Y9N4-4MXR>] (last visited Oct. 18, 2022).

⁴³ Antonios, *supra* note 26.

⁴⁴ *PGD FAQ's*, CTR. ADVANCED REPROD. SERVS., <https://www.uconnfertility.com/start-your-journey/learning-about-infertility/faqs/> [<https://perma.cc/P4KA-HHWQ>] (last visited Oct. 18, 2022).

condition that causes cognitive, physical, and sensory decline, as well as almost certain death, all by the age of five.⁴⁵ Absent PGD, parents who are carriers for conditions like Tay-Sachs would have very few options. They could go ahead and seek to conceive children traditionally, but if prenatal diagnosis reveals that the fetus does in fact have the condition, they will be forced to choose between terminating the pregnancy (assuming their home state has not banned abortions, or that it has at least carved out an exception for fatal fetal abnormalities, disabilities, or birth defects⁴⁶) and having a child who may be destined for a shortened, painful life.⁴⁷ Or parents might entirely forego reproducing using their own biological materials, seeking instead to adopt, use a surrogate, or use donated eggs or sperm.⁴⁸ Either way, absent the information that PGD provides, their reproductive options would be drastically curtailed, making it a crucial ART for many people, with more than 85,000 patients undergoing IVF in the United States each year.⁴⁹

C. Why PGD Has Been Controversial

Although the heartland of PGD is its use by patients dealing with infertility, advanced maternal age, or hereditary conditions, it has not been so limited in its application. More controversially, PGD has also enabled prospective parents to test for Down Syndrome, sex, and other characteristics less clearly deserving of being screened out of existence or for which showing a preference may otherwise be inappropriate.⁵⁰ Studies have suggested that 72.7% of IVF clinics already offer the use of PGD for sex selection, with 83.5% of those clinics making the service available even for couples not suffering from infertility.⁵¹ Some clinics have additionally allowed parents to select *for* embryos affected by certain genetic disorders, such as

⁴⁵ *Diagnosing Tay Sachs in Impacted Embryos Prior to IVF*, FERTILITY INST. HAW., <https://www.ivfcenterhawaii.com/preimplantation-genetic-diagnosis-pgd/diagnosing-tay-sachs-in-impacted-embryos-prior-to-ivf/> [<https://perma.cc/H2VD-MXPX>] (last visited Oct. 18, 2022).

⁴⁶ See, e.g., Nicole Karlis, *In Some States, Women Will Be Forced to Carry Pregnancies with Lethal Fetal Anomalies*, SALON (July 1, 2022), <https://www.salon.com/2022/07/01/in-some-states-women-will-be-forced-to-carry-pregnancies-with-lethal-fetal-anomalies/> [<https://perma.cc/R5WY-MTZ7>] (last visited Oct. 18, 2022).

⁴⁷ See, e.g., Abigail Klein Leichman, *Why to Test for Tay-Sachs*, JEWISHSTANDARD (Sept. 23, 2017, 7:58 PM), <https://jewishstandard.timesofisrael.com/why-to-test-for-tay-sachs/> [<https://perma.cc/K3J7-T249>].

⁴⁸ See *id.*

⁴⁹ See Jennifer Gerson Uffalussy, *The Financial Side of Infertility: 4 Things I Learned During IVF*, HUFFPOST (Feb. 13, 2014, 5:09 AM), https://www.huffpost.com/entry/the-financial-side-of-inf_b_4739621 [<https://perma.cc/75S5-9BPJ>].

⁵⁰ Antonios, *supra* note 26.

⁵¹ Bayefsky, *supra* note 26, at 1160.

deafness or achondroplasia.⁵² As the technology continues to advance, selection based on race and characteristics like intelligence, hair color, eye color, and height will also likely become available, although the complexity of such traits makes selecting for them very difficult, if not impossible, for at least the near future.⁵³ But over time, it seems highly likely that, when “our knowledge of the genome improves” and thereby keeps pace with advancements in “genetic sequencing technology,” such selection—e.g., for cosmetic traits or intelligence—will become a reality.⁵⁴ Accordingly, both academic literature⁵⁵ and popular culture⁵⁶ have begun expressing significant concern over IVF yielding designer babies or children conceived solely to provide transplants for older siblings.⁵⁷ And some bioethicists have even predicted that, as IVF becomes less expensive and uncomfortable, and PGD becomes easier to carry out, “artificial reproduction—including the ability to screen and select the ‘best’ embryos—[will] essentially displace[] making babies the old-fashioned way.”⁵⁸

As PGD continues to improve—enabling screening against more and more genetic conditions and disabilities, and becoming more and more widespread and available—there are a number of potential societal ills that might ensue. These include discrimination against the disabled, the commodification of children, discrimination on the basis of genetics more generally, and eugenics.

1. Disability Discrimination

First, and most saliently, many disability rights advocates have maintained that PGD results in discrimination toward those with the disabilities screened for and selected against.⁵⁹ They have raised concerns that selecting against embryos with

⁵² *Id.*; see Antonios, *supra* note 26; Darshak M. Sanghavi, *Wanting Babies Like Themselves, Some Parents Choose Genetic Defects*, N.Y. TIMES (Dec. 5, 2006), <https://www.nytimes.com/2006/12/05/health/05essa.html> [<https://perma.cc/5FAV-5EYP>]; David Teather, *Lesbian Couple Have Deaf Baby by Choice*, GUARDIAN (Apr. 7, 2002), <https://www.theguardian.com/world/2002/apr/08/davidteather> [<https://perma.cc/8VTY-AN8M>].

⁵³ Bayefsky, *supra* note 26, at 1160.

⁵⁴ Bryan Walsh, *The Uncertain Future of Human Reproduction*, AXIOS (Jan. 9, 2021), <https://www.axios.com/gene-editing-and-the-uncertain-future-of-human-reproduction-50f7885c-d2b3-4113-be86-aebfed3beb82.html> [<https://perma.cc/RUV7-9WCV>].

⁵⁵ See, e.g., Antonios, *supra* note 26; Bayefsky, *supra* note 26, at 1161.

⁵⁶ See, e.g., *GATTACA* (Jersey Films 1997); *MY SISTER'S KEEPER* (New Line Cinema 2009).

⁵⁷ The creation of such “savior siblings” entails using PGD and IVF to produce offspring who can provide tissue donations to their siblings and thereby mitigate the genetic disorder or disability of a separate, already-existing child. See Elizabeth Andersen, *Savior Siblings for a “Noble Cause”*, BIOETHICS.NET (Feb. 20, 2019), <https://ethicsandsociety.org/2019/02/20/savior-siblings-for-a-noble-cause/> [<https://perma.cc/Z79G-9NSD>]. Thus, savior siblings implicate different concerns than does the use of PGD and IVF to prevent the birth of children with that genetic disorder or disability in the first place.

⁵⁸ Walsh, *supra* note 54 (citing HANK GREELY, *THE END OF SEX* (2018)).

⁵⁹ Robertson, *supra* note 28, at 454.

disabilities both serves as a public declaration that able-bodied lives are worth more than disabled lives and decreases the number of individuals with said disabilities, undermining their political influence.⁶⁰ On top of the “fear of elimination” faced by those with disabilities is the worry that prospective parents may encounter societal coercion to screen out genetic conditions from their children, lest they be viewed as “irresponsible” for failing to do so.⁶¹ Relatedly, activists fear that pre-birth selection based on disability enkindles public beliefs that those with such conditions should not exist, increasing the risk of bigotry and discrimination toward them.⁶² Society may not sympathize with and offer compassionate care to those with disabilities, and may instead disregard them, if the public believes that their disabilities should have been prevented.⁶³

Moreover, some claim that such screening “reinforces the medical model that disability itself” is the issue to address, rather than societal stigma against those with disabilities, thereby preventing communities and governments from properly focusing their attention on medical or societal advancements for those with disabilities.⁶⁴ With the availability of PGD, society may cease treating or attempting to cure certain conditions, instead focusing on prevention, an outcome that becomes more likely due to the dwindling numbers and political effectiveness of the group, rendering them less able to advocate for research into cures or treatment.⁶⁵ Finally, many advocates feel that selection against embryos with disabilities is often based on misinformation or ignorance—the invalid assumption that raising a child with a disability will somehow be less fulfilling for parents, rather than an experience that enriches and gladdens them.⁶⁶

Some scholars have dismissed these fears of discrimination, arguing that the decreasing prevalence of disability is not a value judgement toward persons with disabilities.⁶⁷ Thus, one can try to prevent disabilities without devaluing the disabled.⁶⁸

⁶⁰ Robertson, *supra* note 28, at 453; see *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of Ind. St. Dep’t of Health*, 888 F.3d 300, 315 (7th Cir. 2018) (Manion, J., concurring in the judgment in part and dissenting in part) (arguing trait-selective abortion “perpetuates the odious view that some lives are worth more than others and increases the stigma associated with having a genetic disorder” (internal citation and quotation marks omitted)).

⁶¹ Dolgin, *supra* note 32, at 526.

⁶² Robertson, *supra* note 28, at 454.

⁶³ Malinowski, *supra* note 32, at 209.

⁶⁴ Asch, *supra* note 32, at 316; see also Dolgin, *supra* note 32, at 526 (“[PGD] suggests that prospective parents will (or even that they should) respond to problems faced by people with disabilities with biological, rather than social, solutions.”).

⁶⁵ See *Planned Parenthood*, 888 F.3d at 315 (Manion, J., concurring in the judgment in part and dissenting in part) (“[Celebrating the eradication of Down syndrome] not only devalues the lives of those living with Down syndrome, but it disincentivizes research that might help them in the future.”).

⁶⁶ Asch, *supra* note 32, at 316.

⁶⁷ Roberts, *supra* note 28, at 5.

⁶⁸ *Id.*; see also Robertson, *supra* note 28, at 453 (“A policy to prevent accidents that cause

Yet while it is true that screening may not *explicitly* make a statement on the value of disabled lives, it does implicitly reinforce the notion that disabilities themselves—not societal misunderstanding or discrimination—are the sole source of the challenges and difficulties faced by those with the conditions.

2. Commodification of Children

Second, in addition to discrimination against the disabled, some have argued that PGD and IVF could result in the commodification of children.⁶⁹ If parents are able to screen out certain characteristics from their offspring—to customize their conception—then such a practice runs the risk of children becoming “deliberately manufactured commodities.”⁷⁰ If children are viewed as personalizable, then PGD and IVF could render them a vessel for parental desires,⁷¹ an outcome that undermines children’s “inherent worth and dignity.”⁷²

3. Genetic Discrimination

Third, and similarly to concerns over commodification, is the fear that PGD and IVF could foster discrimination on the basis of “immutable genetic traits” more generally.⁷³ If children become custom-built objects or property, and if parents can eliminate their offspring’s “undesirable” genes, be it short stature, baldness, or color blindness, then children born naturally, without being screened for those characteristics, might be viewed as defective or somehow lesser. If genetic engineering and selection against minor, cosmetic, or superficial traits become the norm, then anything less than perfection may be viewed as inadequate.⁷⁴ Thus, discrimination against the imperfect could ensue.

This argument was outlined by Judge Erickson in his *Rutledge* concurrence:

A core value of eugenics is the notion that diversity in the human population should be reduced to maximize and eventually realize the “ideal” of a more “perfect person.” Inherent in this concept

paraplegia does not harm existing paraplegics, nor prevent us from supporting programs that make their lives easier. Similarly, a program that enables people to avoid the birth of children with disabilities does not have to denigrate existing persons with those conditions.”).

⁶⁹ Coan, *supra* note 32, at 236.

⁷⁰ *Id.*; see also Dolgin, *supra* note 32, at 524 (“Selecting the traits of one’s child before gestation suggests a supermarket of options that may result in parents’ valuing children for discrete traits rather than for their personhood more broadly.”).

⁷¹ Robertson, *supra* note 28, at 479.

⁷² *Id.* at 423.

⁷³ Norton, *supra* note 29, at 1645.

⁷⁴ See, e.g., *GATTACA* (Jersey Films 1997).

is the goal of controlling genetic diversity of a population in order to create a super race: one that is deemed to be healthier, smarter, stronger, and more beautiful. The creation of such a cadre of people would undoubtedly lead to greater discrimination against people who are deemed to be “inferior,” resulting in a broad attack on diversity of the human population.⁷⁵

In other words, genetic screening, whether in the context of abortion or IVF, would reduce human diversity and foster discrimination against those possessing the traits screened against.⁷⁶

4. Eugenics

Fourth, closely related to concerns over disability and genetic discrimination is the specter of eugenics—especially since the notions of genetic perfection that undergird discriminatory preferences may themselves be rooted in white supremacy.⁷⁷ This fear, in light of Justice Thomas’s concurrence in *Box*,⁷⁸ as well as subsequent decisions by Circuit Courts,⁷⁹ would likely be particularly influential in any case addressing the constitutionality of restrictions on the use of PGD and IVF. The technology’s use to select embryos based on their sex, race, or disability implicates the same concerns that Justice Thomas felt would justify laws banning abortions motivated by those factors.⁸⁰

II. THE CONTROVERSY SURROUNDING TRAIT-SELECTIVE ABORTIONS WILL INEVITABLY BLEED INTO THE REALM OF PGD

Because PGD enables screening for race, sex, and disability—and subsequently implicates the same concerns regarding discrimination, commodification, and eugenics—state regulation of genetic screening in the abortion context will almost certainly grow to encompass the use of PGD. Over the past several years, over ten states have restricted, through both civil and criminal penalties, abortions motivated

⁷⁵ *Little Rock Family Planning Servs. v. Rutledge*, 984 F.3d 682, 694 (2021) (Erickson, J., concurring).

⁷⁶ *See, e.g.*, Sonia M. Suter, *The Tyranny of Choice: Reproductive Selection in the Future*, 5 J.L. BIOSCIENCE 262, 265 (2018).

⁷⁷ *See, e.g.*, M. Annie Houghton-Larsen, Note, *I Paid for a White Baby: How Assisted Reproductive Technologies Reproduce White Supremacy*, 11 GEO. J.L. & MOD. CRITICAL RACE PERSP. 161, 175 (2019).

⁷⁸ *See Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1783–93 (2019) (Thomas, J., concurring).

⁷⁹ *See infra* Part II.

⁸⁰ *See infra* Part II.

by “discrimination.”⁸¹ Prohibited bases for abortions have included Down Syndrome diagnosis,⁸² sex or gender,⁸³ disability,⁸⁴ genetic abnormality,⁸⁵ and race, color, ancestry, or national origin.⁸⁶ A number of circuit cases have recently wrestled with the constitutionality of such laws, with the Seventh⁸⁷ and Eight Circuits⁸⁸ striking them down and the Sixth upholding them.⁸⁹

A. *Planned Parenthood of Indiana & Kentucky, Inc. v. Commissioner*

The Seventh Circuit struck down Indiana’s non-discrimination provisions forbidding abortions motivated by fetal sex, disability, or race.⁹⁰ Despite the state arguing that its laws “represent[ed] a ‘qualitatively new type of abortion regulation,’” and that it had a compelling governmental interest in preventing discrimination against certain fetuses in the wake of advancements in genetic screening, the Court nonetheless held that it could not reevaluate women’s substantive due process privacy rights against those asserted interests.⁹¹ Because (at the time) *Roe v. Wade* had established,⁹² and *Planned Parenthood of Southeastern Pennsylvania v. Casey* had reaffirmed,⁹³ a categorical right to terminate one’s pregnancy prior to viability, the Court held that pre-viability bans on abortions motivated by the fetus’s sex, race, or disability “violate a woman’s Fourteenth Amendment right to privacy.”⁹⁴

⁸¹ See *infra* notes 82–85 and accompanying text.

⁸² See, e.g., ARK. CODE ANN. § 20-16-2103 (2019); IND. CODE ANN. § 16-34-4-6 (2019) (struck down in *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of Ind. St. Dep’t of Health*, 888 F.3d 300 (2018)); MO. REV. STAT. § 188.038 (2019); OHIO REV. CODE ANN. § 2919.10 (2019); UTAH CODE ANN. § 76-7-302.4 (2019).

⁸³ See, e.g., ARIZ. REV. STAT. ANN. § 13-3603.02 (2019); ARK. CODE ANN. § 20-16-1904 (West 2018); IND. CODE ANN. § 16-34-4-5 (West 2022) (struck down in *Planned Parenthood*, 888 F.3d at 300); KAN. STAT. ANN. § 65-6726 (2019); KY. REV. STAT. ANN. § 311.731 (West 2019); MO. REV. STAT. § 188.038; N.C. GEN. STAT. ANN. § 90-21.121 (West 2019); N.D. CENT. CODE § 14-02.1-04.1 (2019); OKLA. ST. ANN. tit. 63, § 1-731.2 (West 2019); S.D. CODIFIED LAWS § 34-23A-64 (2019).

⁸⁴ See, e.g., IND. CODE ANN. § 16-34-4-7 (West 2022) (struck down in *Planned Parenthood*, 888 F.3d at 300); KY. REV. STAT. ANN. § 311.731 (West 2019).

⁸⁵ See, e.g., LA. STAT. ANN. § 40:1061.1.2 (2019); N.D. CENT. CODE § 14-02.1-04.1 (2013).

⁸⁶ See, e.g., ARIZ. REV. STAT. ANN. § 13-3603.02 (2019); IND. CODE ANN. § 16-34-4-8 (2016) (struck down in *Planned Parenthood*, 888 F.3d at 300); KY. REV. STAT. ANN. § 311.731 (2019); MO. REV. STAT. § 188.038 (2019).

⁸⁷ See *Planned Parenthood*, 888 F.3d at 300.

⁸⁸ See *Little Rock Family Planning Servs. v. Rutledge*, 984 F.3d 682, 692 (2021).

⁸⁹ See *Preterm-Cleveland v. McCloud*, 994 F.3d 512, 516, 520–22 (6th Cir. 2021) (en banc).

⁹⁰ See *Planned Parenthood*, 888 F.3d at 300, 302.

⁹¹ *Id.* at 301, 307.

⁹² 410 U.S. 113, 153 (1973).

⁹³ 505 U.S. 833, 846 (1992).

⁹⁴ *Planned Parenthood*, 888 F.3d at 307.

But the Seventh Circuit's ruling was not without internal controversy. Judge Manion concurred in the judgment with respect to Indiana's non-discrimination law solely because "Supreme Court precedent compels us to invalidate Indiana's attempt to protect unborn children from being aborted solely because of their race, sex, or disability," and he opined that it was "regrettable" that *Casey's* (pre-*Dobbs*) "super-precedent" status meant "[t]hat a narrowly drawn statute meant to protect especially vulnerable unborn children cannot survive scrutiny."⁹⁵ Manion suggested that the Supreme Court "reconsider *Roe* and *Casey*," as it has subsequently done in *Dobbs*, and he argued that Indiana's non-discrimination provisions should be upheld even under strict scrutiny: "Nobody would dispute that Indiana has a compelling interest in protecting mixed-race children, women, and disabled individuals from discrimination" and in preventing abortions "performed simply because the unborn child is of the wrong sex[,] the wrong race[,] or has a genetic disability," and Manion could not "imagine legislation more narrowly tailored to promote this interest."⁹⁶

He expressed concern that trait-selective abortions will result in disability discrimination (of the sort that PGD might also enable).⁹⁷ He argued that "[p]ermitting women who otherwise want to bear a child to choose abortion because the child has Down syndrome perpetuates the odious view that some lives are worth more than others and increases the 'stigma associated with having a genetic disorder.'"⁹⁸ He further claimed that celebrating the eradication of the condition "not only devalues the lives of those living with Down syndrome, but it disincentivizes research that might help them in the future."⁹⁹

Similarly, Judge Easterbrook, in an opinion joined by then-judge (now Justice) Barrett, dissented from the Seventh Circuit's denial of rehearing en banc.¹⁰⁰ He argued that *Casey* did not control because it never "consider[ed] the validity of an anti-eugenics law."¹⁰¹ Trait selection cases are fundamentally different from typical abortion rights cases, he reasoned, and he expressed concern that these sorts of abortions might result in the commodification of children and in genetic discrimination:

None of the Court's abortion decisions holds that states are powerless to prevent abortions designed to choose the sex, race, and other attributes of children. It is becoming possible to control some aspects of embryos' genomes. States may regulate that

⁹⁵ *Id.* at 310–11 (Manion, J., concurring in the judgment and dissenting in part).

⁹⁶ *Id.* at 313–16.

⁹⁷ *Id.* at 315.

⁹⁸ *Id.*

⁹⁹ *Planned Parenthood*, 888 F.3d at 315.

¹⁰⁰ *See Planned Parenthood of Ind. & Ky., Inc. v. Comm'r of Ind. St. Dep't of Health*, 917 F.3d 532, 536 (7th Cir. 2018) (Easterbrook, J., dissenting from denial of rehearing en banc).

¹⁰¹ *Id.*

process when conception is by *in vitro* fertilization. Does the Constitution supply a right to evade regulation by choosing a child's genetic makeup after conception, aborting any fetus whose genes show a likelihood that the child will be short, or near-sighted, or intellectually average, or lack perfect pitch—or be the 'wrong' sex or race?¹⁰²

The Supreme Court subsequently had the chance to review the Seventh Circuit's decision but granted certiorari only to a separate issue involving fetal cremation.¹⁰³ The per curiam opinion noted that "[o]nly the Seventh Circuit has thus far addressed this kind of [anti-discrimination] law," so it denied certiorari to allow further consideration by other Courts of Appeals.¹⁰⁴ In his concurring opinion, Justice Thomas expressed the view that Indiana's laws "promote a State's compelling interest in preventing abortion from becoming a tool of modern-day eugenics."¹⁰⁵ He delved into the history of eugenics from the late 1800s to the mid-1900s, discussing how abortion, contraception, forced sterilization, anti-miscegenation laws, and anti-immigration laws were all envisioned as ways of improving the human race—with race, disability, disease, and "feeble-mindedness" among the many characteristics eugenicists considered.¹⁰⁶ Justice Thomas posited that abortion is currently being used for eugenic purposes worldwide, highlighting the virtual elimination of Down syndrome in Iceland, the 160 million women "missing" in Asia due to sex-selective abortions, and the lingering racial disparities of abortion in the United States.¹⁰⁷ Consequently, although he agreed with the Court's decision not to wade into the issue yet, he suggested that such restrictions would be constitutional due to this compelling interest in preventing eugenics.¹⁰⁸

B. *Little Rock Family Planning Services v. Rutledge*

Two major appellate decisions implicating trait selection in the abortion context came down in 2021. In *Little Rock Family Planning Services v. Rutledge*, an Eighth Circuit panel held unconstitutional an Arkansas law prohibiting physicians from providing abortions if they know that their patient is motivated solely by a diagnosis or the risk of Down syndrome.¹⁰⁹ Its reasoning largely tracked the Seventh Circuit's:

¹⁰² *Id.* (citation omitted).

¹⁰³ *Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1781 (2019).

¹⁰⁴ *Id.* at 1782.

¹⁰⁵ *Id.* at 1783 (Thomas, J., concurring).

¹⁰⁶ *Id.* at 1784–87.

¹⁰⁷ *Id.* at 1790–91.

¹⁰⁸ *Id.* at 1792–93.

¹⁰⁹ 984 F.3d 682, 688, 690 (8th Cir. 2021).

Supreme Court precedent had at the time established a categorical right to pre-viability abortions, so such a wide-ranging ban must be unconstitutional, notwithstanding Arkansas's argument that the law "furthers the State's valid interest in preventing discrimination on the basis of Down syndrome," as well as its citations to Justice Thomas's *Box* concurrence.¹¹⁰

Even so, Judge Shepherd wrote separately to encourage the Court to revisit *Casey* because its "viability standard fails to adequately consider the substantial interest of the state in protecting the lives of unborn children as well as the state's 'compelling interest in preventing abortion from becoming a tool of modern-day eugenics.'"¹¹¹ Likewise, Judge Erickson concurred to express concern over the use of abortion—like earlier eugenic tools—to reduce human diversity and target vulnerable populations like those with Down syndrome, which he noted has been virtually screened out of existence in countries like Denmark.¹¹² He found it unfortunate that Arkansas could not vindicate its interest in preventing "biases broadly prevalent in the society related to race, gender, sexual orientation, and medical or intellectual infirmities . . . [from being,] in the not-too-distant future[,] . . . the subject of genetic manipulation, either in the laboratory or by termination of pregnancies."¹¹³

C. Preterm-Cleveland v. McCloud

Meanwhile, in *Preterm-Cleveland v. McCloud*,¹¹⁴ the Sixth Circuit—in a nine to seven en banc decision that "drew directly from Justice Clarence Thomas'[s] playbook"¹¹⁵—reversed a district court decision enjoining enforcement of an Ohio law that criminalized abortions motivated by a Down syndrome diagnosis.¹¹⁶ The state had argued that it had interests in "protect[ing] the Down syndrome community—both born and unborn—from what the State perceives as discriminatory abortions, namely Down-syndrome-selective abortions"; in "defend[ing] families from coercive healthcare practices that encourage Down-syndrome-selective abortion"; and in "protect[ing] the integrity and ethics of the medical profession by preventing doctors from becoming witting participants in Down-syndrome-selective abortions."¹¹⁷ The

¹¹⁰ *Id.* at 689.

¹¹¹ *Id.* at 693 (Shepherd, J., concurring) (quoting *Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1783 (2019) (Thomas, J., concurring)).

¹¹² *See id.* at 693–94 (Erickson, J., concurring).

¹¹³ *Id.* at 694.

¹¹⁴ 994 F.3d 512, 512 (6th Cir. 2021) (en banc).

¹¹⁵ Mark Joseph Stern, *Conservative Judges Are Manipulating the History of Eugenics to Overturn Roe v. Wade*, SLATE (Apr. 15, 2021, 3:50 PM), <https://slate.com/news-and-politics/2021/04/sixth-circuit-clarence-thomas-abortion-eugenics.html> [<https://perma.cc/Q727-AGGY>].

¹¹⁶ *McCloud*, 994 F.3d at 512.

¹¹⁷ *Id.* at 517–18.

Sixth Circuit rejected the plaintiff's argument that *Roe* and *Casey* (which had not yet been overturned by *Dobbs*) established a categorical, absolute right to an abortion prior to fetal viability,¹¹⁸ and it focused on the fact that the bill prohibits only the *knowing* provision of abortions *by a doctor*, such that there was no undue burden completely preventing *patients* from seeking abortions upon a Down syndrome diagnosis.¹¹⁹

Several concurring opinions dove even deeper into the eugenics issue, with Justice Thomas's *Box* concurrence being cited consistently throughout each. Judge Griffin "wr[o]te separately to emphasize Ohio's compelling state interest in prohibiting its physicians from knowingly engaging in the practice of eugenics,"¹²⁰ making frequent references to the Holocaust and the infamous *Buck v. Bell*, in which the Supreme Court upheld Virginia's involuntary sterilization of the "feeble-minded,"¹²¹ throughout his concurrence.¹²² Judge Bush's opinion also delved deeper into the issue of eugenic abortions and made numerous references to Justice Thomas's concurrence.¹²³

D. What These Cases Bode for PGD

As a result, a circuit split has emerged on the issue of "eugenic" abortions. The Seventh and Eighth Circuits have struck down the anti-discrimination laws as categorical pre-viability bans in violation of *Roe* and *Casey*, while the Sixth has upheld the relevant laws.¹²⁴ Moreover, Arkansas has already succeeded in getting the Eighth Circuit's judgment vacated and remanded for further consideration in light of *Dobbs*.¹²⁵ It is yet unclear how this split (and the issue of trait-selective abortions more generally) has been affected by the overturning of *Roe* and *Casey* by *Dobbs*.¹²⁶ Perhaps the issue of trait-selective abortions is moot, as states begin banning any and all abortions, potentially subject to various exceptions, regardless of whether those abortions are typical or instead trait-selective, discriminatory, or eugenic. Or perhaps states will seek to carve out trait-selective abortions for even more restrictive regulation, e.g., eliminating some of the exceptions to their laws regulating non-eugenic abortions. Alternatively, despite its frequent reassurances that it and the Constitution alike are neutral as to abortion, and that the issue is to be left to the states,¹²⁷ the Court may eventually rule that the Constitution's Equal Protection Clause in fact *outlaws* abortions, or at least trait-selective or discriminatory ones.

¹¹⁸ See *id.* at 522–23.

¹¹⁹ See *id.* at 526–29.

¹²⁰ *Id.* at 538 (Griffin, J., concurring).

¹²¹ 274 U.S. 200, 201, 206 (1927).

¹²² *McCloud*, 994 F.3d at 538–40 (Griffin, J., concurring).

¹²³ *Id.* at 540–50 (Bush, J., concurring).

¹²⁴ See *supra* Sections II.A–C.

¹²⁵ See *supra* notes 5–6 and accompanying text.

¹²⁶ *Dobbs v. Jackson Women's Health Org.*, 142 S. Ct. 2228 (2022).

¹²⁷ *Id.* at 2279, 2283–84; *id.* at 2304–06 (Kavanaugh, J., concurring).

Despite this lingering uncertainty, these cases have made one thing clear: PGD will almost certainly be regulated similarly to “eugenic” abortions, thereby implicating similar constitutional concerns, in the very near future. PGD enables screening on the basis of the same characteristics that have been deemed off-limits for abortion by almost a dozen states. PGD, much like abortion paired with prenatal diagnosis, implicates the same concerns—disability discrimination, the commodification of children, genetic discrimination more generally, and eugenics—that motivated Justice Thomas’s *Box* concurrence, as well as several appellate opinions. And a number of judges in those cases have explicitly noted as much, particularly Judge Easterbrook and Judge Erickson.

Because state regulation of PGD in a manner similar to that of trait-selective abortions is inevitable, it is necessary to analyze whether there would be a right to use PGD to screen for disabilities and other genetic conditions. And like other unenumerated, privacy-related constitutional rights, such as access to contraceptives, the substantive component of the Fourteenth Amendment’s Due Process Clause would likely be the source of any right to use PGD.

III. HOW TO DEFINE THE RIGHT TO USE PGD, AND AT WHAT LEVEL OF GENERALITY

In identifying fundamental rights in substantive due process cases, the Supreme Court generally undertakes two steps. It must first determine the nature of the asserted right, and second, whether that right is “an aspect of Fourteenth Amendment ‘liberty.’”¹²⁸ For this second step of its substantive due process jurisprudence, the Court has consistently identified “tradition” as the touchstone.¹²⁹ As part of this “tradition test,”¹³⁰ the Court discerns whether the right at issue is one of “those fundamental rights and liberties which are, objectively, deeply rooted in this Nation’s history and tradition,”¹³¹ or if it is “implicit in the concept of ordered liberty.”¹³²

However, the Court has not been consistent in how it either defines the rights at issue¹³³ or applies its tradition test.¹³⁴ In some cases, at step one, the Court strictly

¹²⁸ *McDonald v. City of Chicago*, 561 U.S. 742, 883 (2010) (Stevens, J., dissenting).

¹²⁹ Ronald J. Krotoszynski, Jr., *Dumbo’s Feather: An Examination and Critique of the Supreme Court’s Use, Misuse, and Abuse of Tradition in Protecting Fundamental Rights*, 48 WM. & MARY L. REV. 923, 927 (2006).

¹³⁰ *Id.*

¹³¹ *Washington v. Glucksberg*, 521 U.S. 702, 703 (1997).

¹³² *McDonald*, 561 U.S. at 761 (Stevens, J., dissenting) (quoting *Palko v. Connecticut*, 302 U.S. 319, 325 (1937)).

¹³³ Krotoszynski, *supra* note 129, at 930 (“The Justices have never specified the level of generality at which one should attempt to ascertain ‘tradition.’ . . . If a judge reframes the question [of whether there is a right to same-sex intimacy], however, and [assesses] ‘tradition’ at a higher level of generality, the answer becomes less obvious.”).

¹³⁴ *Id.* at 927–28 (“Indeed, the Supreme Court has been remarkably inconsistent, even

insists on “a ‘careful description’ of the asserted fundamental liberty interest,”¹³⁵ and in applying its tradition test at step two, it focuses almost exclusively on the history surrounding the Founding and the ratification of the Fourteenth Amendment.¹³⁶ In *Bowers v. Hardwick*, for instance, the Court did just that, concluding that America’s history of state criminalization of sodomy rendered “facetious” at best the argument that a right to engage in sodomy was “deeply rooted in this Nation’s history and tradition.”¹³⁷ When operating under a narrow definition of the liberty interest and firmly “ground[ing] the analysis in historical experience and reasoned judgment,”¹³⁸ the Court will less frequently deem a right fundamental.¹³⁹

But in other cases, the Court has adopted a much broader approach. In such cases, the Court often defines the asserted liberty interest at a higher level of generality,¹⁴⁰ and for its tradition test, it will not rely as strictly on history to determine if the right is a characteristic of Fourteenth Amendment liberty.¹⁴¹ Instead, the Court will factor in not only history and tradition (and not just that of the Founding and Reconstruction) but also whether the right at stake falls within the scope of rights the Court has previously acknowledged as fundamental,¹⁴² or whether there is an international consensus in favor of recognizing the right.¹⁴³ In the landmark case *Obergefell v. Hodges*, which acknowledged a right to same-sex marriage, the Court

sloppy, in its application of the tradition test. . . . No single means of operationalizing the tradition test has enjoyed consistent application and observance.”).

¹³⁵ *Glucksberg*, 521 U.S. at 703 (quoting *Reno v. Flores*, 507 U.S. 292, 302 (1993)); *see also McDonald*, 561 U.S. at 797 (Scalia, J., concurring) (requiring “a careful, specific description of the right at issue in order to determine whether that right, thus narrowly defined, [is] fundamental” (emphasis removed)).

¹³⁶ *See, e.g., Bowers v. Hardwick*, 478 U.S. 186, 192–94 (1986).

¹³⁷ *Id.* at 194.

¹³⁸ *McDonald*, 561 U.S. at 877–78 (Stevens, J., dissenting).

¹³⁹ *See, e.g., Glucksberg*, 521 U.S. at 722; *Bowers*, 478 U.S. at 192, 194; *see also Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2246–61 (2022) (discussing history and rejecting broad definition of right to abortion).

¹⁴⁰ *See Lawrence v. Texas*, 539 U.S. 558, 567 (2003) (acknowledging as fundamental the right for consenting, homosexual adults to enter relationships while maintaining “their dignity as free persons,” and overruling *Bowers* because it “misapprehended the claim of liberty there presented to it” by defining the right too narrowly (as a right to commit sodomy, rather than a right to intimacy more generally)).

¹⁴¹ *Obergefell v. Hodges*, 576 U.S. 644, 664 (2015) (“History and tradition guide and discipline this inquiry but do not set its outer boundaries. That method respects our history and learns from it without allowing the past alone to rule the present.”).

¹⁴² *See, e.g., Lawrence*, 539 U.S. at 574 (discussing how the asserted right to consensual same-sex intimacy falls within the “constitutional protection to personal decisions relating to marriage, procreation, contraception, family relationships, child rearing, and education” acknowledged in prior cases).

¹⁴³ *See, e.g., id.* at 572–73 (charting the evolution of American and European laws regarding consensual same-sex intimacy).

demonstrated its willingness to both more broadly define the rights at stake and look beyond historical practice:

Glucksberg did insist that liberty under the Due Process Clause must be defined in a most circumscribed manner, with central reference to specific historical practices. Yet while that approach may have been appropriate for the asserted right there involved (physician-assisted suicide), it is inconsistent with the approach this Court has used in discussing other fundamental rights, including marriage and intimacy. . . . [E]ach [marriage] case inquired about the right to marry in its comprehensive sense, asking if there was a sufficient justification for excluding the relevant class from the right.¹⁴⁴

Under this more expansive approach, i.e., defining the right more broadly and looking beyond the narrow confines of history, the Court is much more likely to find an asserted right fundamental.¹⁴⁵ Crucially, therefore, the first step—defining the right at issue—is often effectively outcome determinative. Such contrast is especially salient between *Lawrence v. Texas* and *Bowers v. Hardwick*—whether the liberty interest was the right to engage in sodomy or instead to make personal, intimate decisions was the key component to each case’s outcome.¹⁴⁶

A. A Broad Definition Is Most Harmonious with the Court’s Substantive Due Process Jurisprudence

The first potential way to define the right to use PGD would be at a high level of generality. The liberty interest could be characterized not just as the right to use PGD specifically, but instead to use ARTs to influence offspring characteristics pre-birth more generally. Or at an even higher level of abstraction, using PGD could be characterized as falling within the broader right to reproduce, which has been termed “procreative liberty” by some academics.¹⁴⁷

A high level of abstraction would comport with the Court’s historical approach toward cases involving reproduction. The twentieth century witnessed a slate of Supreme Court decisions recognizing the fundamentality of various rights relating to privacy, procreation, and intimacy.¹⁴⁸ As early as 1942, the Court in *Skinner v.*

¹⁴⁴ 576 U.S. at 671.

¹⁴⁵ See, e.g., *id.* at 675–76; *Lawrence*, 539 U.S. at 567.

¹⁴⁶ Compare *Bowers v. Hardwick*, 478 U.S. 186, 192–94 (1986), with *Lawrence*, 539 U.S. at 573–74.

¹⁴⁷ Robertson, *supra* note 28, at 428.

¹⁴⁸ See generally *Skinner v. Oklahoma*, 316 U.S. 535 (1942); *Loving v. Virginia*, 388 U.S. 1 (1967).

Oklahoma, which entailed an equal-protection-based challenge to the forced sterilization of inmates, but which could fall under substantive due process were it brought today, acknowledged that “[m]arriage and procreation are fundamental to the very existence and survival of the race” and are among “the basic civil rights of man,” and the Court struck down the law.¹⁴⁹ Likewise, *Loving v. Virginia* entailed a successful challenge to a state anti-miscegenation law, based on both the Equal Protection and Due Process Clauses of the Fourteenth Amendment, with the Court declaring that “[t]he freedom to marry has long been recognized as one of the vital personal rights essential to the orderly pursuit of happiness by free men.”¹⁵⁰ Subsequent cases further expanded the scope of substantive due process, concluding that there are fundamental rights to, most relevant to PGD and IVF, contraception¹⁵¹ and same-sex intimacy¹⁵² and marriage.¹⁵³ And in these cases involving procreation and intimacy, the Court has typically employed a broader analytical framework at both step one and step two.

In contrast, the Court has employed the more restrictive approach—defining rights narrowly and hewing strictly to history—where the right asserted involved end-of-life issues (or abortion¹⁵⁴). This is a distinction that the Court in *Obergefell* specifically acknowledged.¹⁵⁵

PGD and IVF involve reproduction, making them more closely resemble “marriage and intimacy” cases than end-of-life ones, at least at first glance. As a result, at step one of the substantive due process analysis, one would define the right to use PGD to screen for disabilities or genetic conditions at a high level of generality—like the right to influence offspring characteristics pre-birth, or even the right to reproduce more generally.

B. A Narrow Definition Rooted in the Potential “Eugenic” Effects of PGD Would Be Flawed

But the fact that PGD resembles various procreation-related activities from cases in which the Court defined the relevant right broadly and subsequently found that right, so construed, to be fundamental is not the end of the story. In light of the Court’s current, more conservative composition,¹⁵⁶ it might, much like Justice Thomas in

¹⁴⁹ 316 U.S. 535, 541 (1942).

¹⁵⁰ 388 U.S. 1, 12 (1967).

¹⁵¹ See, e.g., *Eisenstadt v. Baird*, 405 U.S. 438, 453 (1972); *Griswold v. Connecticut*, 381 U.S. 479, 485–86 (1965).

¹⁵² See *Lawrence v. Texas*, 539 U.S. 558, 578 (2003).

¹⁵³ See *Obergefell v. Hodges*, 576 U.S. 644, 674 (2015).

¹⁵⁴ *Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2257–58 (2022).

¹⁵⁵ See *Obergefell*, 576 U.S. at 670–71.

¹⁵⁶ See, e.g., Laura Bronner & Elena Mejia, *The Supreme Court’s Conservative Supermajority Is Just Beginning to Flex Its Muscles*, FIFTYTHREE (July 2, 2021), <https://five>

Box with respect to trait-selective abortions, seize upon the third-party harms implicated by PGD, i.e., its discriminatory or eugenic potential. And the Court might use those harms to justify narrowly characterizing the relevant liberty interest as the right to use PGD to screen against disabilities and genetic disorders, rather than the right to influence offspring characteristics pre-birth more generally. Or the Court might even define it as the right to commit eugenics.

1. The Significance of Third-Party Harms

Were the Court to seek to depart from its historically broad approach to defining reproduction-related rights, the fact that PGD implicates third-party harms like disability discrimination could prove key to the Court in defining the relevant liberty interest more narrowly.¹⁵⁷ In general, when a law implicating fundamental rights is aimed at preventing third-party harms, rather than simply expressing moral disapproval, it is more likely to be upheld.¹⁵⁸ Such harms are generally absent from procreation cases (which normally define the relevant right broadly), but they are often present in end-of-life and abortion cases (which normally define the right more narrowly).

Specifically, where third-party harms are absent, a broader definition of the relevant right is more likely, and so is recognition of the right as fundamental. As Justice Kennedy noted in *Obergefell*, there was no proof offered “that allowing same-sex marriage will cause the harmful outcomes [the respondents] describe,” and he instead noted that “these cases involve only the rights of two consenting adults whose marriages would pose *no risk of harm to themselves or third parties*.”¹⁵⁹ And in that case, the right to same-sex marriage was defined broadly and subsequently deemed fundamental.¹⁶⁰

Similar arguments were raised in *Cruzan*.¹⁶¹ The majority opinion noted that, at least in the context of the termination of life support for incompetent patients, courts could validly consider “the protection of the interests of innocent third parties.”¹⁶² But the Court ended up concluding that whatever right an incompetent patient has

thirtyeight.com/features/the-supreme-courts-conservative-supermajority-is-just-beginning-to-flex-its-muscles/ [https://perma.cc/Z83T-EPCN].

¹⁵⁷ See *infra* Section III.B.2.

¹⁵⁸ See, e.g., William N. Eskridge, Jr., *Body Politics: Lawrence v. Texas and the Constitution of Disgust and Contagion*, 57 FLA. L. REV. 1011, 1056 (2005) (discussing *Lawrence* and concluding that “a morals law that criminalizes conduct that (1) is no longer widely criminalized and (2) *does not seem to impose harm on third parties* but (3) is important to a coherent and well-organized social group is most constitutionally objectionable” (emphasis added)).

¹⁵⁹ *Obergefell v. Hodges*, 576 U.S. 644, 679 (2015) (emphasis added).

¹⁶⁰ See *id.* at 671.

¹⁶¹ *Cruzan v. Dir., Mo. Dep’t of Health*, 497 U.S. 261, 312–13 (1990).

¹⁶² *Id.* at 271; see *id.* at 273.

to refuse life-sustaining treatment, it could properly be abrogated by procedural safeguards like the clear and convincing evidence standard at issue in the case.¹⁶³

Although the majority opinion upheld the policy at issue without fully engaging in how to define the relevant liberty interest—with Justice O’Connor’s concurrence subsequently going into greater detail about the various potential rights relating to suicide, treatment refusal, etc., implicated by the case¹⁶⁴—the dissenting opinions asserted that there was a fundamental right, and the absence of any potential third-party harms proved key to their reasoning.¹⁶⁵ Justice Brennan asserted that “Nancy Cruzan has a fundamental right to be free of unwanted artificial nutrition and hydration, which right is not outweighed by any interests of the State,” and because Missouri’s “improperly biased procedural obstacles . . . impermissibly burden that right,” her right “to die with dignity” was violated.¹⁶⁶ Key to his argument was that Missouri lacked any “possible interest[] in mandating life-support treatment,” as “[n]o third party’s situation will be improved and no harm to others will be averted.”¹⁶⁷ Justice Stevens similarly noted the trial judge’s finding that “granting [Cruzan’s parents’ request to withdraw her life support] would neither adversely affect any innocent third parties nor breach the ethical standards of the medical profession,” arguing that the absence of any “adverse impact on third parties” further demonstrates the absence of any “possible basis” for Missouri to insist upon maintaining life support.¹⁶⁸ As a result, the policy should have given way because “[t]he best interests of the individual . . . [were] buttressed by the interests of all related third parties.”¹⁶⁹

The potential for harm to other people proved salient in *Glucksberg* as well, playing a crucial role in the Court’s refusal to deem the “right to die with dignity” fundamental.¹⁷⁰ There, fears of a slippery slope from physician-assisted suicide to involuntary suicide and euthanasia, especially against the “ill and vulnerable,”¹⁷¹ proved a major concern to the majority,¹⁷² as well as several concurring Justices.¹⁷³

¹⁶³ See *id.* at 280.

¹⁶⁴ See *id.* at 287–91 (O’Connor, J., concurring).

¹⁶⁵ See *id.* at 302 (Brennan, J., dissenting).

¹⁶⁶ *Id.* at 302 (Brennan, J., dissenting).

¹⁶⁷ *Id.* at 312–13.

¹⁶⁸ *Id.* at 332–34 (Stevens, J., dissenting).

¹⁶⁹ *Id.* at 350.

¹⁷⁰ See *Washington v. Glucksberg*, 521 U.S. 702, 719 (1997).

¹⁷¹ *Id.*; see also *id.* at 731–32 (discussing the state’s “interest in protecting vulnerable groups—including the poor, the elderly, and disabled persons—from abuse, neglect, and mistakes”).

¹⁷² See *id.* at 730–35 (discussing concerns over suicide, especially among the mentally ill; harm to “the integrity and ethics of the medical profession”; the exploitation of vulnerable communities; and a potential slippery slope into euthanasia).

¹⁷³ See *id.* at 747–48 (Stevens, J., concurring) (discussing how “the State has a compelling

Although the various opinions disagreed over the force of the third-party-harm argument,¹⁷⁴ in the end the majority rejected broad definitions of the relevant liberty interest, e.g., “a right to die,” “to choose a humane, dignified death,” or “to control of one’s final days.”¹⁷⁵ Instead, the majority opinion narrowly defined the relevant liberty interest as “a right to commit suicide which itself includes a right to assistance in doing so,”¹⁷⁶ and it concluded that the right, narrowly construed, was not fundamental.¹⁷⁷ Thus, the Court upheld the constitutionality of the state law.¹⁷⁸

Likewise, the significance *Roe* affixed to trimesters and viability was based on an explicit weighing of the pregnant person’s interests with the state’s interests in protecting potential life, i.e., preventing harm to fetuses (the relevant third parties).¹⁷⁹ Likewise, the Court in *Dobbs* emphasized how abortion differs from other substantive due process rights (interracial marriage, access to contraceptives, residing with relatives, educating one’s children, avoiding forced sterilization, refusing medical treatment, and same-sex marriage and intimacy) specifically because of the third-party harms abortion poses.¹⁸⁰ “What sharply distinguishes the abortion right from the rights recognized in the cases on which *Roe* and *Casey* rely is something that both those decisions acknowledged: Abortion destroys . . . ‘potential life’ and . . . the life of an ‘unborn human being.’”¹⁸¹ The Court thus rejected “attempts to justify abortion through appeals to a broader right to autonomy and to define one’s ‘concept of existence,’” as “[t]hose criteria, at a high level of generality, could license fundamental rights to illicit drug use, prostitution, and the like,” and none of those activities could be considered “deeply rooted in history.”¹⁸²

In describing substantive due process case law, therefore, scholars have noted that the lack of third-party harms can often prove fatal to the constitutionality of laws

interest in preventing persons from committing suicide because of depression, or coercion by third parties,” but that that interest has different strengths in different contexts); *see generally id.* at 782–89 (Souter, J., concurring) (discussing the debate over whether physician-assisted suicide is a gateway to euthanasia).

¹⁷⁴ *See generally id.* at 729–34 (Rehnquist, C.J., majority opinion); *id.* at 747 (Stevens, J., concurring in the judgment) (discussing “the State’s legitimate interests in preventing suicide, protecting the vulnerable from coercion and abuse, and preventing euthanasia,” though arguing the concerns were not as salient as they might be in other cases); *id.* at 755 (Souter, J., concurring in the judgment) (“[Washington argues] that recognition of the substantive due process right at issue here would jeopardize the lives of others outside the class defined by the doctors’ claim, creating risks of irresponsible suicides and euthanasia . . .”).

¹⁷⁵ *Id.* at 722–23 (internal citations and quotation marks omitted).

¹⁷⁶ *Id.* at 723.

¹⁷⁷ *Id.* at 735.

¹⁷⁸ *See id.*

¹⁷⁹ *See Roe v. Wade*, 410 U.S. 113, 163–64 (1973).

¹⁸⁰ *Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2257–58 (2022).

¹⁸¹ *Id.* at 2258.

¹⁸² *Id.*

regulating private, especially intimate, conduct.¹⁸³ As a result, when such harms are absent, courts will more likely recognize a right and strike down any laws impinging upon it. But when those harms are implicated, as in *Dobbs* and *Glucksberg*, the Court often defines rights narrowly and does not find them deeply rooted or fundamental.

2. The Third-Party Harms Implicated by PGD

Overall, PGD does pose a risk of harm to third parties, and this fact could lead the Court to apply the narrower analytical approach of *Dobbs* and *Glucksberg*. And were the putative substantive due process right to use PGD defined more narrowly based on those potential harms, rather than more broadly, there very likely would not be any fundamental right.

As an initial matter, it is unlikely that the Court would treat PGD and IVF as implicating the same third-party harms as abortion. While abortion involves the termination of potential human life, in the form of an embryo gradually approaching viability, there is not even a potential human life involved with PGD and IVF absent implantation.¹⁸⁴ Thus, insofar as the *Dobbs* Court sought to cabin the impact of its decision by distinguishing the abortion right from other privacy-related rights on the basis that “[a]bortion is a unique act’ because it terminates ‘life or potential life,’” and fertilized embryos used during IVF cannot be “potential life” unless they are implanted in a patient’s womb, PGD and IVF do not implicate the same third-party harms as abortion.¹⁸⁵ Thus, *Dobbs* on its own would likely not provide a sufficient justification for treating IVF and PGD any differently, in terms of defining the putative right, from the sorts of privacy rights that the Court said were not affected by its ruling.¹⁸⁶

It is a different story with *Glucksberg*, however. Even if PGD and IVF do not implicate the same issues as abortion (i.e., the termination of unborn or potential life), litigants or the Court could still point to the disability discrimination, commodification of children, genetic discrimination, and eugenics potentially engendered by

¹⁸³ See Eskridge, *supra* note 158, at 1056; see also Daniel O. Conkle, *Three Theories of Substantive Due Process*, 85 N.C. L. REV. 63, 108–09 (2006) (discussing the “reasoned judgment” theory of substantive due process and characterizing the Court, in employing this theory, as “follow[ing] a version of the . . . ‘harm to others’ principle . . . consistent with the libertarian philosophy of John Stuart Mill . . . [and] rejecting government paternalism, at least if the government is attempting merely to advance an interest in personal morality”).

¹⁸⁴ See Tian Zhu, *In Vitro Fertilization*, EMBRYO PROJECT ENCYCLOPEDIA (July 22, 2009), <https://embryo.asu.edu/pages/vitro-fertilization> [<https://perma.cc/K74M-YQUL>]; Michele R. Davidson, *Preimplantation Genetic Diagnosis*, ENCYCLOPAEDIA BRITANNICA (Nov. 15, 2018), <https://www.britannica.com/science/preimplantation-genetic-diagnosis> [<https://perma.cc/2B7Y-MQLS>].

¹⁸⁵ *Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2277–78 (2022).

¹⁸⁶ See *id.*

PGD,¹⁸⁷ as well as the broader issues associated with IVF itself (like savior siblings and intentional diminishment).¹⁸⁸ This possibility becomes yet more likely given that the third-party harms PGD and IVF implicate strongly parallel *Glucksberg*'s.¹⁸⁹ There, Washington had an “interest [not only] in protecting vulnerable groups—including the poor, the elderly, and disabled persons—from abuse, neglect, mistakes, . . . [and] coercion,” but also in “protecting disabled and terminally ill people from prejudice, negative and inaccurate stereotypes, and societal indifference.”¹⁹⁰ Washington’s law thus embodied the “policy that the lives of terminally ill, disabled, and elderly people must be no less valued than the lives of the young and healthy.”¹⁹¹ Insofar as the use of PGD for disability screening both eliminates those with disabilities and serves as a statement that their lives are worth less,¹⁹² it implicates those exact same fears.

On the basis of such third-party harms, therefore, the Court could distinguish away cases like *Obergefell*, along with the broader analytical approach they entailed, and it could instead apply the significantly narrower analytical framework characteristic of *Dobbs* and *Glucksberg*.¹⁹³ Thus, despite involving reproduction, which would normally result in a broad definition of the relevant liberty interest *a la* *Obergefell*, PGD more readily implicates third-party harms than do other rights (like same-sex marriage), such that it might be deemed closer to assisted suicide (*Glucksberg*), the termination of life support (*Cruzan*), or abortion (*Dobbs*) within the broader substantive due process spectrum. As a result, the risk of eugenics or discrimination might be used to justify defining the relevant liberty interest narrowly.

3. A Comparable Analysis in the Abortion Context

Were the Court to change course by seizing upon these third-party harms and defining the relevant liberty interest more narrowly, such a definition could be outcome determinative. When rights are defined narrowly, history is the touchstone of the Court’s analysis.¹⁹⁴ Under this analytical approach, “[o]ur Nation’s history, legal traditions, and practices . . . provide the crucial ‘guideposts for responsible decisionmaking’”¹⁹⁵—not precedent or international approaches.¹⁹⁶ If the Court

¹⁸⁷ See *supra* Section I.C.

¹⁸⁸ See *supra* notes 50–57 and accompanying text.

¹⁸⁹ See *Glucksberg*, 521 U.S. at 731–32 (internal quotation marks and citation omitted).

¹⁹⁰ See *id.*

¹⁹¹ *Id.* at 732.

¹⁹² See *supra* Section I.C.1.

¹⁹³ See *supra* notes 128–46 and accompanying text.

¹⁹⁴ See *supra* notes 128–46 and accompanying text.

¹⁹⁵ *Washington v. Glucksberg*, 521 U.S. 702, 721 (1997) (quoting *Collins v. City of Harker Heights*, 503 U.S. 115, 125 (1992)).

¹⁹⁶ See *supra* notes 128–46 and accompanying text.

defined the right at a very low level of abstraction and looked at that right's history (the history of PGD, or the history of eugenics), rather than at a higher level (the history of attempting to influence offspring characteristics pre-birth¹⁹⁷), then the Court might very well conclude that such a right is not deeply rooted or fundamental. By looking solely to the nascent history of PGD (or to the history of eugenics), then, the Court might come to a diametrically opposed conclusion than if it had defined the right more broadly. Therefore, despite precedent suggesting that the Court would take a broad analytical approach and conclude that PGD and IVF are fundamental, the Court may instead distinguish away that precedent and conclude that the right is not fundamental.¹⁹⁸

A rough template for such an analysis (in the trait-selective abortion context) can be found in Judge Bush's concurring opinion in *Preterm-Cleveland v. McCloud*.¹⁹⁹ “[L]ook[ing] to the original meaning of the Fourteenth Amendment,” he concluded that substantive due process does “not prohibit laws that protect unborn life with Down syndrome,” and “[t]he two tests that the Supreme Court often applies in [such cases]—history-and-tradition analysis and interest balancing—accord with that conclusion.”²⁰⁰ Narrowly characterizing the asserted liberty interest as “a right to abort a fetus based on its genetic characteristics,”²⁰¹ Judge Bush claimed that the original meaning of the Fourteenth Amendment would not have been understood by people at the time to prohibit this sort of state regulation, especially since many states—like Ohio—had been passing anti-abortion bills about the time of the Amendment.²⁰²

Even though “[t]his case should begin and end with the Constitution's text,” he continued to undertake the Court's history-and-tradition and interest-balancing tests, because their outcome “is entirely consistent . . . [with] original meaning” regarding the “fundamental right to eugenic abortion.”²⁰³ He discussed how America has had a “dark dalliance with the eugenics movement,” but the movement subsequently “failed to attain the degree of consensus necessary to deeply root a practice in our history and tradition.”²⁰⁴ Instead, states subsequently rejected compelled sterilization laws in favor of laws that protected those with disabilities from discrimination, making it now permissible for Ohio to “enshrine into law the value of lives with Down syndrome.”²⁰⁵ Likewise, with respect to interest balancing, Judge Bush thought that Ohio's ban would survive strict scrutiny, as the state possesses a “compelling interest . . . in preventing eugenics,” and “[a] prohibition on eugenic

¹⁹⁷ See *supra* Section III.A.

¹⁹⁸ Cf. *Dobbs v. Jackson Women's Health Org.*, 142 S. Ct. 2228, 2246–61 (2022).

¹⁹⁹ *Preterm-Cleveland v. McCloud*, 994 F.3d 512, 541–50 (6th Cir. 2021) (en banc) (Bush, J., concurring).

²⁰⁰ *Id.* at 541.

²⁰¹ *Id.* at 546.

²⁰² *Id.* at 546–47.

²⁰³ *Id.* at 547.

²⁰⁴ *Id.* at 547.

²⁰⁵ *Id.*

abortions would be the least restrictive way to further states' compelling interest in eradicating them," such that the narrow tailoring requirement is also satisfied.²⁰⁶

4. Describing the Relevant Liberty Interest as the "Right to Commit Eugenics" Would Be Inapt

Thus, were a case to come before the Court regarding the right to use PGD, it could readily draw upon the templates laid out by Judge Bush and Justice Thomas to characterize the right narrowly—as a right to commit eugenics or to screen against disabilities and other genetic conditions. However, the Court should hesitate before it does so, as the frequent comparisons between genetic screening and eugenics²⁰⁷ are not entirely apt. As scholars,²⁰⁸ judges,²⁰⁹ and commentators²¹⁰ have noted, there is a difference between eugenics—normally defined as involving state sponsorship, as with the frequently proffered example of Naziism—and voluntary, private choices—like abortion or PGD paired with IVF. As Judge Donald has argued,

the invocation here of th[e] term [eugenics] is wrong for two key reasons. First, in tying reproductive rights to the eugenics movement, the concurrences and Ohio omit the fundamental difference

²⁰⁶ *Id.* at 547–48.

²⁰⁷ *See, e.g.*, *Box v. Planned Parenthood of Ind. & Ky., Inc.*, 139 S. Ct. 1780, 1783–93 (2019) (Thomas, J., concurring); *McCloud*, 994 F.3d at 538–40 (Griffin, J., concurring); *id.* at 540–50 (Bush, J., concurring); *Planned Parenthood of Ind. & Ky., Inc. v. Comm'r of Ind. St. Dep't of Health*, 917 F.3d 532, 536 (7th Cir. 2018) (Easterbrook, J., dissenting from denial of rehearing en banc).

²⁰⁸ *See, e.g.*, Murray, *supra* note 1; Adam Cohen, *Clarence Thomas Knows Nothing of My Work*, ATLANTIC (May 29, 2019), <https://www.theatlantic.com/ideas/archive/2019/05/clarence-thomas-used-my-book-argue-against-abortion/590455/> [<https://perma.cc/46VS-2PM2>] (“The justice used my book to tie abortion to eugenics. But his rendition of the history is incorrect.”).

²⁰⁹ *See, e.g.*, *McCloud*, 994 F.3d at 560–61 (Moore, J., dissenting) (“Judges Griffin’s and Sutton’s concurrences, moreover, demonstrate why one should be skeptical of judges as historians. I need not repeat the thoughtful responses in the dissents of Judges Gibbons and Donald; it is perverse and deplorable to compare a woman’s decision to seek an abortion to the Holocaust and forced sterilization, and mainstream historians have widely discredited Judge Griffin’s erroneous recount of history. Instead, I emphasize that judges should refrain from relying on unfounded historical commentaries. Judge Griffin’s ‘history’ is just an opinion about opinions. He fails to cite even *one* primary source—the scarlet letter of the dilettante historian.”); *id.* at 568–69 (Gibbons, J., dissenting) (“In [Judge Griffin’s] view, women who terminate their pregnancies due to a Down syndrome diagnosis and the doctors who care for them are modern-day eugenicists. This is an inapt comparison, one that ignores the many complex and very personal reasons that might lead a woman to seek an abortion.”); *id.* at 583–84 (Donald, J., dissenting) (“This use of ‘eugenics’ fundamentally misunderstands that term.”); *id.* at 586–90 (accusing Justice Thomas and her colleagues on the Sixth Circuit of further engaging in “[t]he erroneous or misleading use of history” by conflating Margaret Sanger’s eugenicist views on birth control with selective abortions).

²¹⁰ *See, e.g.*, Stern, *supra* note 115 (see title).

between state and individual actors and also present an inaccurately tidy history connecting reproduction rights, abortion, and the eugenics movement. Second, in describing a Down-syndrome-selective abortion as eugenics, the concurrences and Ohio impute upon women a eugenicist mindset for which there is no evidentiary basis, much less a basis in common sense, thereby ignoring the difference between a woman today making an individual choice and a historical movement tightly fastened upon “improving stock.”²¹¹

While eugenics-related Court cases like *Skinner* and *Buck* involved state policies, Judge Donald reasoned, “[a] woman choosing to have an abortion because of a Down syndrome diagnosis . . . involves no state policy or mandate; rather, it is merely a woman making a choice, ideally free from any state action, interference, or imposition of its professed values.”²¹² The various judicial opinions comparing abortions motivated by a diagnosis of Down syndrome to eugenics thus ignore the “fundamental . . . distinction between private and state action.”²¹³

In sum, there is a “difference between a private *choice* and a social *movement*,” and patients seeking “abortion[s] because of a prenatal Down syndrome diagnosis [are not] doing so with any intention of improving the quality of humankind”—and after all, the *raison d’être* of eugenics is “improving stock.”²¹⁴ Patients seeking abortions in such circumstances are not doing so with eugenicist intent but instead “based on a multitude of deeply personal factors, including [their] financial and emotional ability to commit to raising a child with Down syndrome as well as the sufficiency, accuracy, and completeness of the information [their] doctor provides.”²¹⁵ As a result, as Judge Donald’s colleague Judge Moore remarked, “[I]t is perverse and deplorable to compare a woman’s decision to seek an abortion to the Holocaust and forced sterilization”²¹⁶

5. The Line Between Private Reproductive Decisions and “Eugenics” Is Blurrier than Is Often Acknowledged, but It Can Be Made Clearer

Yet the distinction between eugenics and private choice is not always so crystal clear. In fact, the line between state-sponsored and private action can be blurry, as

²¹¹ *McCloud*, 994 F.3d at 585 (Donald, J., dissenting).

²¹² *Id.*

²¹³ *Id.*; *see id.* at 586 (“[T]he use of historical examples in which the *state* acted with some plainly and repugnantly eugenicist rationale is wholly inapposite to a *private* person making a profoundly *personal* decision. Ask: who is making the decision here? Is it the state or a private individual? Is it a policy or a choice? In *Buck*, it was the state’s policy. In *Skinner*, it too was the state’s policy. For a woman in Ohio, it is an individual choice.”).

²¹⁴ *Id.* at 589.

²¹⁵ *Id.*

²¹⁶ *Id.* at 560–61 (Moore, J., dissenting).

private choices are often based on economic pressures or societal stigma and animus, which in turn can be a product of government policy.²¹⁷ Some have thus argued that, “[d]ue to social pressures and eugenic attitudes held by clinical geneticists in most countries, [PGD] results in eugenic outcomes even though no state coercion is involved,” with the possible end result being “full-blown free-market eugenics.”²¹⁸ Historically, eugenics was frequently associated with state coercion, but “coercion was never an essential feature of eugenic theory or practice,” and many founding members of the eugenics movement, like Francis Galton, “opposed . . . coercion, believing that if people were properly informed they would naturally make the ‘right’ reproductive decisions.”²¹⁹

And even absent state sponsorship, a number of factors might foster eugenic choices by prospective parents. One major contributor is doctors themselves. According to survey data, many geneticists and obstetricians harbor potentially eugenic beliefs, e.g., “the number of deleterious genes in the population” should be reduced.²²⁰ Likewise, official statements from professional organizations often include declarations “that the purpose of offering screening is to reduce the number of births of congenitally disabled children,” and “arguments for the introduction of genetic screening programmes are often couched in terms of financial benefits to the state.”²²¹ And many doctors act on these beliefs: despite patient autonomy being the professional norm, geneticists across the globe often seek to influence their patients’ decision making by providing “biased prenatal counselling [that] emphasis[es] negative aspects of a condition,” and this effect may be even worse for patients “from lower socio-economic groups.”²²² Also noteworthy is that “the very fact that a test is offered by doctors tends to suggest to [patients] that its use is warranted and desirable,” and when a test becomes routine—and subsequently is presented to patients as such—that effect is only exacerbated.²²³

In addition to the role played by the medical establishment, “social context” also plays a key part in fostering potentially eugenic mindsets. “[U]nderlying social pressures” like “the oppression of people with disabilities” can influence reproductive decision making.²²⁴ Parents undergoing genetic screening “are rarely put in

²¹⁷ See David S. King, *Preimplantation Genetic Diagnosis and the ‘New’ Eugenics*, 25 J. MED. ETHICS 176, 181 (1999) (“It is also important to realise that the line between state eugenics and free-market eugenics is not sharp. It would be perfectly possible for state bureaucracies to intervene in the free market, on grounds of public health or national competitiveness. Such interventions need not be obvious or require coercion.”).

²¹⁸ *Id.* at 176.

²¹⁹ *Id.* at 177.

²²⁰ *Id.*

²²¹ *Id.* at 178.

²²² *Id.* at 177.

²²³ *Id.*

²²⁴ *Id.* at 178.

touch with people who actually live with the genetic disorder in question,” and they can subsequently “receive negative images of people with disabilities and general misinformation about what their lives are like.”²²⁵ Moreover, “parents are aware of the material aspects of disability oppression: insufficient welfare provision, lack of access[,] and discrimination.”²²⁶ So, absent a more robust social safety net, not only the child but also their family may suffer “financial problems . . . as well as increased stress” if the parents do not perform screening.²²⁷ What is more, if patients refuse to undergo genetic screening, and their child ends up having the condition that could have been avoided, patients might blame themselves for an “irresponsible” choice, and others—including doctors—might blame them too.²²⁸

Consequently, financial and stigmatic pressures may result from inadequate governmental support, healthcare, etc., for those with disabilities, and both forces can encourage screening against certain conditions. “These social pressures, combined with the attitudes of geneticists and obstetricians and the structural bias introduced by routinisation of testing, guarantee that allowing parents a ‘free choice’ results in a systematic bias against the birth of genetically disabled children, a bias that can only be called eugenic.”²²⁹ Society is thus left with “laissez faire eugenics,” with “social ‘market forces’ result[ing] in predictable outcomes, even though everyone still has a nominally free choice.”²³⁰ And similar arguments have been raised regarding trait-selective abortions: even if “legalized abortion [is not] a eugenicist conspiracy—a deliberate plot on the part of those favoring abortion rights to reduce the number of people of a given race, sex, or disability”—it will still have “disparate eugenic impact[s]” based on race, sex, and disability.²³¹

But while the dividing line regarding eugenics is blurry, it can be made clearer. By expanding access to healthcare, expanding access to long-term services and supports (LTSS) for those with disabilities, reducing misinformation or stigma about disabilities, continuing to fund research into treating genetic conditions, and more,²³² the United States can address the economic pressures, stigma, and implicit societal coercion that can influence reproductive decisions. Once parents are no longer faced with anti-disability animus or economic constraints that result from the state’s failure to properly support those with disabilities, there is no specter of government involvement—and therefore of eugenics. Any genetic screening that occurs, then, whether via PGD/IVF or prenatal diagnosis/abortion, is a truly voluntary, “private

²²⁵ *Id.*

²²⁶ *Id.*

²²⁷ *Id.*

²²⁸ *Id.* at 177.

²²⁹ *Id.* at 178.

²³⁰ *Id.*

²³¹ Michael S. Paulsen, *Abortion as an Instrument of Eugenics*, 134 HARV. L. REV. F. 415, 421–25 (2021).

²³² See *infra* Section IV.A.2.

choice”²³³—free from any explicit or *implicit* financial or stigmatic pressures—rather than “Naziism.” In other words, the only way to “achieve an uncoerced free choice for everyone in reproductive decisions . . . [is] to combat the social forces that produce laissez faire eugenics.”²³⁴ So, there is a difference, albeit a blurry one, between state-sponsored eugenics and voluntary choice. But by recognizing a right to PGD and subjecting that right to regulation, as this Article argues for below,²³⁵ society can ensure that the use of PGD and other ARTs falls firmly, and solely, in the latter category.

6. A Narrow, Eugenics-Based Definition Would Inevitably, and Possibly Intentionally, Curtail Parental Autonomy

Furthermore, this is not the first time that two somewhat-related concepts with blurry lines have been conflated for the arguable purpose of curtailing reproductive rights. Professor B. Jessie Hill has demonstrated how many state legislatures have seized upon both the COVID-19 pandemic and lingering linguistic muddiness around the definition of “elective” medical procedures to restrict access to abortion.²³⁶ Specifically, many states sought “to limit abortion access under the authority of executive orders limiting ‘non-essential,’ ‘non-urgent,’ or ‘elective’ medical and surgical procedures” by “rely[ing] on the narrow meaning of ‘elective’ in the abortion context, as well as underlying ambiguity about the meaning of ‘elective.’”²³⁷

Similarly, were the Court to reject the fundamentality of the right to use PGD and IVF on the grounds that genetic screening is eugenics, this outcome—coupled with states’ efforts at passing fetal personhood laws and the end of *Roe* and *Casey*²³⁸—could seriously diminish parental reproductive autonomy. Were there no right whatsoever to use PGD and IVF, not only might parents be unable to pursue more troublesome uses of the technology, e.g., screening for nonmedical characteristics or Down syndrome, but they may also be unable to screen for genetic conditions that very clearly pose substantial childrearing burdens. Without access to information pertaining to such conditions’ presence, parents may end up compelled to bear children destined for shortened, painful lives; to blindly implant an embryo and then abort it upon prenatal diagnosis (assuming their state even allows abortion in those circumstances); or to just forego reproducing biologically.²³⁹ As a result, the states would be able to “commandeer[] th[e] personal decision-making” of patients regarding

²³³ Preterm-Cleveland v. McCloud, 994 F.3d 512, 589–90 (6th Cir. 2021).

²³⁴ King, *supra* note 217, at 178.

²³⁵ See *infra* Parts IV–V.

²³⁶ B. Jessie Hill, *Essentially Elective: The Law and Ideology of Restricting Abortion During the COVID-19 Pandemic*, 106 VA. L. REV. ONLINE 99, 99–100 (2020).

²³⁷ *Id.* at 100.

²³⁸ See *supra* notes 12–27.

²³⁹ See *supra* Section I.B.

their reproduction, “which interferes not only in a profoundly private personal decision, but also does violence to the ethical norm of patient autonomy.”²⁴⁰

As a result, the frequent comparisons of abortion, birth control, and genetic screening to eugenics comes across, much like officials seizing on the ambiguity of “elective,” as an attempt to curtail procreative liberty. Insofar as states are seeking to outright ban trait selection due to fears of eugenics or other third-party harms, rather than eliminate the financial and societal pressures undergirding controversial uses of PGD or abortion while otherwise preserving the availability of those treatments, their actions seem directed more toward restricting parental autonomy than to actually dealing with disability discrimination. Therefore, were the Court to equate genetic screening with eugenics—despite the many questions surrounding the accuracy of that comparison—and thereby deny recognition for this right, it would be undermining parental access to a treatment that many feel is fundamentally “pro-family.”²⁴¹

C. Defining the Right at Some Intermediate Level of Abstraction May Entangle Courts in Difficult and Possibly Counterproductive Line-Drawing Exercises

Rather than narrowly defining the liberty interest as a right to commit eugenics, or broadly defining it as a right to influence offspring characteristics pre-birth, the Court could also adopt a definition of intermediate breadth. This definition could be something along the lines of “the right to select against sufficiently serious offspring characteristics pre-birth.” But there are serious normative and line-drawing problems posed by this approach.²⁴² Not only might courts lack the technical expertise to make these determinations regarding which conditions are serious enough to merit genetic screening, but an incorrect assessment might also rigidly enshrine within the Fourteenth Amendment the right to screen a certain condition out of existence in a way that could, counterproductively, engender discrimination and other third-party harms.²⁴³

Moreover, laws that single out only certain genetic conditions as worthy of protection from being screened out of existence may themselves send negative messages to people with other conditions not deemed so worthy. As Judge Donald asked in *McCloud*, “Why, then, does H.B. 214 protect only the Down syndrome community? What message does the explicit protection of the Down syndrome community send to those with spina bifida or cystic fibrosis?”²⁴⁴ And she answered that question by looking to the amicus brief of “[a] group of mothers who have raised children with Down syndrome,”²⁴⁵ who expressed concern that by “unfairly singl[ing] out one group

²⁴⁰ *Preterm-Cleveland v. McCloud*, 994 F.3d 512, 589 (6th Cir. 2021).

²⁴¹ Klein, *supra* note 15.

²⁴² See *infra* Section IV.A.2.

²⁴³ See *infra* Section IV.A.2.

²⁴⁴ *McCloud*, 994 F.3d at 582 (Donald, J., dissenting).

²⁴⁵ *Id.*

for disparate treatment under the guise of ‘protection,’” the law “politiciz[es] children with Down syndrome,” “perpetuates a sense of ‘otherness’ between the disability community at large and those with Down syndrome,” and “hurts parents’ efforts at promoting inclusion, diversity[,] and rights to all persons with disabilities.”²⁴⁶

In conclusion, the Court should define the right to use PGD broadly—as the right to influence offspring characteristics pre-birth. A broad definition is consistent with the Court’s other reproduction-related cases, whereas a narrow definition, rooted in the potential eugenic effects of PGD, would likely result in the right not being recognized as fundamental and would thereby curtail parental autonomy. Such a narrow definition would also ignore the differences between eugenics and private choices while doing nothing to address the factors making the line between the two blurry. Additionally, an intermediate definition might itself result in discrimination within the broader disability community and would entail difficult line drawing beyond the expertise of the courts. Thus, the right should be broadly defined.

IV. THE BASIS FOR RECOGNIZING A RIGHT

This Article thus proceeds under the more expansive substantive due process analytical framework at step two.²⁴⁷ It first discusses whether the right to influence offspring characteristics pre-birth would fall within the scope of rights pertaining to procreation previously acknowledged as fundamental by the Court, and it addresses normative and practical flaws associated with that formulation. It next discusses whether there is historical support for recognizing the right, looking at the relevant medical history, state common law, and state regulation. Finally, this Article examines whether there has been any international consensus regarding the right.

A. The Use of PGD and IVF Falls Within the Scope of Rights Previously Deemed Fundamental by the Court

As discussed above,²⁴⁸ in substantive due process cases, one of the Court’s main analytical tools in determining a right’s fundamentality has been assessing the extent to which the asserted liberty interest falls within the scope of rights it has previously deemed fundamental.²⁴⁹ For PGD and IVF, the right to influence offspring characteristics pre-birth arguably fits within the broader “right to reproduce” that the Court has recognized, i.e., “procreative liberty.”²⁵⁰

²⁴⁶ *Id.* (last alteration in original) (citation omitted).

²⁴⁷ See *infra* Section III.B.3 for discussion of the alternative possibility.

²⁴⁸ See *supra* notes 128–46 and accompanying text.

²⁴⁹ See, e.g., *Lawrence v. Texas*, 539 U.S. 558, 574–75 (2003); *Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2257–58 (2022).

²⁵⁰ Robertson, *supra* note 28, at 428–29. In addition to procreative liberty, “one can also

1. IVF and PGD Fit Within the Scope of Procreative Liberty . . .

At first blush, procreative liberty would seem to encompass the right to influence offspring characteristics pre-birth, both in general and via PGD, including selecting embryos on the basis of disability or genetic condition. The use of PGD and IVF seems to fall squarely within the cluster of rights, e.g., contraception and marriage, previously acknowledged by the Court as fundamental; it certainly seems like a “personal decision[] relating to marriage, procreation, contraception, family relationships, child rearing, and education,” rights currently protected by substantive due process.²⁵¹ In addition, PGD paired with IVF is an ART, and recognizing a right to access technologies that facilitate reproduction seems to flow naturally from recognition of the right to access technologies that prevent reproduction, i.e., contraceptives. ARTs like IVF are arguably on the other side of the same coin as contraception, access to which is already recognized as fundamental,²⁵² so the right to use PGD and IVF should be too.²⁵³

Furthermore, PGD and IVF lack the key attribute that motivated the Court in *Dobbs* to carve abortion out from the scope of procreative liberty: the destruction of potential life.²⁵⁴ Again, PGD paired with IVF involves fertilized embryos, but those embryos are not potential life absent implantation. To hold otherwise—that something can be potential life even if some further, affirmative step is necessary before there is a non-zero chance of life—would arguably mean that sperm cells or unfertilized eggs are potential life too. If embryos stored *in vitro* are unborn life, even if they must first be implanted, then so too are sperm and eggs, even if they must first be brought together for fertilization.

Besides the presence of parallels to other rights previously acknowledged as fundamental, there is also a strong link between those rights and PGD and IVF. If

make an argument [for fundamentality] based on family autonomy in rearing children.” *Id.* at 424; see also Coan, *supra* note 32, at 255 (“[Genetic selection] might also be analogized to the traditional right of parents to make important child-rearing decisions . . .”). Such rights were first established in *Meyer v. Nebraska*, 262 U.S. 390, 400 (1923), recognizing the right to educate children in foreign languages, and *Pierce v. Society of Sisters*, 268 U.S. 510, 535–36 (1925), recognizing the right to send children to private and parochial schools. While there is some meat to this analogy—if one can shape one’s children through upbringing and education, i.e., nurture, then they might also have the right to do so through PGD and IVF, i.e., nature—it does seem too large a leap, especially in light of the Court’s insistence, at least in some cases, that rights should be narrowly defined. See *supra* notes 128–46 and accompanying text; Coan, *supra* note 32, at 255. For that reason, this Article focuses on procreative liberty.

²⁵¹ *Lawrence*, 539 U.S. at 574.

²⁵² See, e.g., *Eisenstadt v. Baird*, 405 U.S. 438, 453 (1972); *Griswold v. Connecticut*, 381 U.S. 479, 485–86 (1965).

²⁵³ See *Lifchez v. Hartigan*, 735 F. Supp. 1361, 1376–77 (N.D. Ill. 1990) (holding that the right to access contraceptives must also guarantee a right to access ARTs like IVF).

²⁵⁴ See *supra* notes 184–86 and accompanying text.

prospective parents were denied the right to use PGD, then they would not be able to screen for the characteristic they want to avoid when undergoing IVF. Absent such screening, parents would face the choice between not reproducing whatsoever (or at least via their own genetic materials) and implanting an embryo that may have a devastating genetic disorder or disability.

In the former scenario, the lack of access to the information provided by PGD dissuades prospective parents from reproducing because the risk of implanting an embryo with the undesired characteristic may be too great. This outcome would implicate similar concerns to those raised in *Skinner v. Oklahoma*.²⁵⁵ That case, addressing the forced sterilization of inmates, declared that Oklahoma was depriving individuals of their “right to have offspring,” and implicitly, to procreate specifically using their own biological materials.²⁵⁶ Oklahoma almost certainly could not have justified its statute by saying that the inmates could instead just adopt children or use surrogates or donated biological materials (had those been available at the time). So, denying prospective parents the vital information provided by PGD, such that they entirely forego reproducing using their own genetic materials due to a fear of passing on a serious condition, would likely implicate that same “right to have offspring.”²⁵⁷ And the availability of alternatives that do not entail a full genetic link to one’s children, like adoption or surrogacy, would almost certainly not rectify this issue. Relatedly, insofar as there is a right to have children, there should also be a right to access information that informs reproductive decision making.²⁵⁸

Several scholars have likewise concluded that the technology’s usage falls within the procreative liberty protected by the Fourteenth Amendment. Notably, Professor John Robertson has argued that procreative liberty would encompass the “right to select or control offspring characteristics” if said characteristics are central or “material” to whether reproduction will occur.²⁵⁹ Surmising that Supreme Court precedent has established fundamental rights to avoid both undesired reproduction and the denial of reproductive capacity,²⁶⁰ Robertson concludes that there is an overarching

²⁵⁵ 316 U.S. 535 (1942).

²⁵⁶ *Id.* at 536.

²⁵⁷ *Id.* at 536, 541.

²⁵⁸ *Cf. Lifchez v. Hartigan*, 735 F. Supp. 1361, 1377 (N.D. Ill. 1990) (“The cluster of constitutional choices that includes the right to abort a fetus within the first trimester must also include the right to submit to a procedure designed to give information about that fetus which can then lead to a decision to abort.”); Lillian R. BeVier, *An Informed Public, an Informing Press: The Search for a Constitutional Principle*, 68 CALIF. REV. 482, 482–83 (1980) (discussing whether the rights to free speech and self-governance guarantee “the public’s right to be informed” by “an informing press”).

²⁵⁹ Robertson, *supra* note 28, at 428–29.

²⁶⁰ *Id.* at 425–26 (citing *Planned Parenthood of Se. Pa. v. Casey*, 505 U.S. 833 (1992); *Roe v. Wade*, 410 U.S. 113 (1973); *Eisenstadt v. Baird*, 405 U.S. 438 (1972); *Griswold v. Connecticut*, 381 U.S. 479 (1965); *Skinner v. Oklahoma*, 316 U.S. 535 (1942)).

right “to choose whether or not to reproduce.”²⁶¹ Accordingly, if an embryonic characteristic, including disability, genetic disorder, sex, or nonmedical condition, is determinative of whether reproduction proceeds, then the law must afford this decision the same recognition it gives to other reproductive choices.²⁶² Thus, so long as the characteristic is truly determinative, and not merely a “preference,” parents would have the fundamental right to select embryos on that basis.²⁶³

2. Notwithstanding Practical and Normative Flaws

But whether influencing offspring characteristics pre-birth, including selecting embryos on the basis of disabilities or other disfavored characteristics, is a fundamental right does not seem as clear-cut as Robertson maintains, or as the initial similarities to other fundamental rights would suggest. Answering Robertson, other scholars have noted that determining the materiality of a characteristic in the IVF context would be rather difficult. Particularly, Professor Rachel Remaley, discussing PGD for sex selection, asserts that determining materiality would be problematic via either an objective test (asking if a reasonable person would find the information central to their reproductive choices), because it would be incapable of addressing society’s diverse viewpoints on reproduction, or a subjective test (asking parents “whether they would have children even if they couldn’t have access to such technology”), because of the risk of parents falsely answering in the affirmative.²⁶⁴ Thus, tying the fundamentality of the right to use PGD (or to influence offspring characteristics pre-birth more generally) to the materiality of the characteristic in question would place courts in a very difficult position. Courts might not be able to separate the determinative characteristics, selection on the basis of which Robertson argues deserves protection, from the mere “preferences” that might not implicate procreative liberty or warrant the regard that reproductive choices generally receive.²⁶⁵

Furthermore, Robertson’s notion that certain embryonic characteristics can be material to *whether* reproduction occurs has its own flaws. While a certain characteristic in an embryo may determine whether the couple implants *that particular embryo*, such a characteristic may not determine whether the couple proceeds with IVF overall. A prospective parent undergoing PGD and IVF wants—and most likely is going—to have a child, especially given the expense of the process, which often exceeds \$12,000.²⁶⁶ The results of PGD generally determine *which* potential embryos

²⁶¹ *Id.* at 426.

²⁶² *Id.* at 429.

²⁶³ *Id.*

²⁶⁴ Remaley, *supra* note 28, at 258.

²⁶⁵ Robertson, *supra* note 28, at 429.

²⁶⁶ Benjamin VanHoose, *Florida Couple Welcomes Son After Winning Contest for Free*

will be implanted, not *whether* any embryos will be implanted or whether pregnancy will occur, except in the fairly infrequent occurrence that every single embryo has the undesired characteristic, such that none are implanted.²⁶⁷ Even then, however, it is not unlikely that the parent will undergo further rounds of IVF and PGD, such that pregnancy will still occur in the end.

Because the use of PGD will normally affect only which embryos are implanted, not whether embryos are implanted, procreative liberty is arguably not implicated. Embryonic selection on the basis of disability, sex, or genetic abnormality may not affect whether parents will reproduce at all but instead “which kind of child they will have,” a decision for which there is no currently acknowledged fundamental right.²⁶⁸ There is thus a significant difference between “whether” and “which” with respect to reproduction, and the right to not reproduce for *any* reason does not logically encompass the right to not reproduce for *any particular* reason; rather, “the right to have a child at all, and the right to select certain characteristics of that child, are entirely separate.”²⁶⁹

That same line of reasoning appeared in two opinions by Seventh Circuit Judges. First, as Judge Manion noted:

Indiana and the amici States persuasively argue that the right identified in *Roe* and *Casey* is only the right to decide whether to have a child, not the right to decide which child to have. This argument makes sense. After all, the women for whom the nondiscrimination provisions present an obstacle have already determined that they want a child. The nondiscrimination provisions simply prohibit those women from targeting their unborn child because of later-discovered immutable human characteristics.²⁷⁰

Similarly, Judge Easterbrook argued that *Casey* did not control because it never “consider[ed] the validity of an anti-eugenics law” and that “[u]sing abortion to promote eugenic goals is morally and prudentially debatable on grounds different from those

IVF: ‘A Dream Come True’, PEOPLE (Nov. 18, 2019, 1:12 PM), <https://people.com/human-interest/florida-couple-welcomes-son-ivf-contest/> [<https://perma.cc/AP3L-TFQN>].

²⁶⁷ See, e.g., Jeani Chang, Sheree L. Boulet, Gary Jeng, Lisa Flowers & Dmitry M. Kissin, *Outcomes of In Vitro Fertilization with Preimplantation Genetic Diagnosis: An Analysis of the United States Assisted Reproductive Technology Surveillance Data, 2011–2012*, 105 FERTILITY & STERILITY 394, 397 (2016) (finding that PGD yields at least one embryo without the undesirable genetic or chromosomal condition, therefore resulting in embryo transfer, around seventy-five percent of the time).

²⁶⁸ Remaley, *supra* note 28, at 257.

²⁶⁹ *Id.* at 257–58.

²⁷⁰ *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of Ind. St. Dep’t of Health*, 888 F.3d 300, 311 (7th Cir. 2018) (Manion, J., concurring in the judgment in part and dissenting in part).

that underlay the statutes *Casey* considered.”²⁷¹ He thus concluded that there is “a difference between ‘I don’t want a child’ and ‘I want a child, but only a male’ or ‘I want only children whose genes predict success in life.’”²⁷²

Remaley thus reasons that what ultimately matters is the burdensomeness of the condition sought to be avoided.²⁷³ In particular, she notes that, when considering the right to abortion in *Roe*, the Court had emphasized the burdens associated with “carrying, delivering, and raising a child” and had concluded that these burdens are so imposing that states cannot compel someone to carry their pregnancy to term unless that pregnancy has progressed to the point where the state’s interest in potential life outweighs the pregnant person’s interests in avoiding those burdens.²⁷⁴ (Although *Dobbs* overturned *Roe*, it is still replete with references to and discussions of the burdens associated with pregnancy; the Court decided that the states, not the judiciary, ought to weigh those burdens against their interest in prenatal life, not that those burdens are irrelevant.²⁷⁵) The burdens in carrying and delivering a child will typically be the same regardless of whether the fetus has the desired sex, race, or other characteristic, so only those burdens associated with *raising* a child without the undesired characteristic versus one with it are generally relevant, if burdensomeness is to be the metric for fundamentality, as Remaley maintains.²⁷⁶ Consequently, procreative liberty would not encompass all uses of PGD/IVF, or all attempts at influencing offspring characteristics pre-birth, whether “material” or not. Instead, parents could, at most, use PGD for characteristics that substantially increase childrearing responsibilities,²⁷⁷ which almost certainly would not include sex²⁷⁸ or other “non-medical or non-therapeutic traits,” but which might include sufficiently serious genetic diseases or conditions.²⁷⁹

But one issue with ascertaining whether a right to influence offspring characteristics pre-birth is fundamental based on the comparative burdensomeness of child-rearing is the difficulty courts would face with line drawing. Few would contest that having a child with Tay-Sachs, sickle cell anemia, or cystic fibrosis would entail substantial difficulties not present with raising a child without such a condition.²⁸⁰ If using PGD and IVF can prevent a child from being born with a grave condition that

²⁷¹ *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of Ind. St. Dep’t of Health*, 917 F.3d 532, 536 (7th Cir. 2018) (Easterbrook, J., dissenting from denial of rehearing en banc).

²⁷² *Id.* (citation omitted).

²⁷³ Remaley, *supra* note 28, at 258.

²⁷⁴ *Id.* at 259 (citing *Roe v. Wade*, 410 U.S. 113 (1973)).

²⁷⁵ *See Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2257, 2261, 2276–77 (2022); *see id.* at 2328–29, 2341 (Breyer, J., dissenting).

²⁷⁶ *See* Remaley, *supra* note 28, at 259.

²⁷⁷ Vacco, *supra* note 28, at 1221.

²⁷⁸ *See id.*; Remaley, *supra* note 28, at 259.

²⁷⁹ Vacco, *supra* note 28, at 1221.

²⁸⁰ *See* L.A. Cargill, *Top Ten Worst Genetic Diseases*, HEALTHFULLY (Dec. 18, 2018), <https://healthfully.com/top-ten-worst-genetic-diseases-4081925.html> [<https://perma.cc/SV22-VAA6>].

may drastically reduce their quality or length of life, or significantly increase the mental, emotional, financial, or physical burdens on their parents, then parents very well might demand—and receive—the right to use this prevention. Were parents denied the right to screen for such devastating conditions, they might face the choice between foregoing reproduction entirely (or at least with their own genetic materials) and risking the implantation of embryos that could develop into children destined for short, painful lives.

On the opposite end of the spectrum, conditions like mild color blindness or mild ADHD may not as significantly impact either the child's quality of life or the parents' difficulties in childrearing.²⁸¹ Thus, parents may less plausibly claim a right to avoid these conditions.

But there are a host of traits that arguably fall somewhere in the middle, conditions that may impose not insignificant burdens on parents, and that may reduce a child's quality of life somewhat, but not to the extent seen with fatal, degenerative conditions. Among these may be blindness, deafness, achondroplasia, and Down syndrome, wherein life may be harder for parents and children alike, but not as painful or drastically shortened as with other disorders. Would parents have the right to screen for such characteristics? Almost any genetic condition can pose *some* additional burdens, and while there are some that might clearly fall on one side of the line or the other, a principled way of distinguishing those in the middle may remain elusive. Consequently, a court determining which uses of PGD and IVF are fundamental based on the burdensomeness of the condition sought to be avoided would be practically problematic.

Moreover, tying the fundamentality of the right to influence offspring characteristics pre-birth (whether through PGD or otherwise) to the childrearing burdens associated with the undesired characteristic is normatively flawed. Such burdens are often far too malleable to constitute a sound basis for determining whether a constitutional right exists.²⁸² These burdens can be reduced or eliminated with medical advancements, as seen with a recent drug possibly turning cystic fibrosis from a death sentence to a manageable, chronic illness.²⁸³ Alternatively, any childrearing burdens associated with a genetic condition could be affected by new technology, like with color blindness glasses.²⁸⁴ Additionally, a condition's seriousness or prognosis may

²⁸¹ *Living with Color Blindness*, COLBLINDOR (2018), <https://www.color-blindness.com/living-with-color-blindness/> [<https://perma.cc/Q6PH-X5QA>] (discussing main challenges as being, *inter alia*, coordinating clothing or identifying ripe produce).

²⁸² See Robertson, *supra* note 28, at 447 n.103, 477.

²⁸³ See Carolyn Y. Johnson, *Long-Awaited Cystic Fibrosis Drug Could Turn Disease into a Manageable Condition*, WASH. POST (Oct. 31, 2019, 12:15 PM), <https://www.washingtonpost.com/health/2019/10/31/long-awaited-cystic-fibrosis-drug-could-turn-deadly-disease-into-manageable-condition/> [<https://perma.cc/L4JF-X9EK>].

²⁸⁴ See, e.g., Alex Maragos, *Workout Group Gives Colorblind Member the Gift of a Lifetime*,

be largely the product of societal attitudes or stigma, rather than biology or genetics.²⁸⁵ Finally, to the extent burdens are economic, they may be eliminated or mitigated both by new technologies and government policy.

Down syndrome is rather illustrative of many of these flaws. As recently as 1983, the life expectancy of people with Down syndrome was only twenty-five years.²⁸⁶ But now, it is not uncommon to see people live into their sixties and seventies, with many of them holding jobs, attending post-secondary school, and entering romantic relationships.²⁸⁷ As Judge Manion pointed out:

[S]tudies show that people with Down syndrome *and their parents and siblings* are quite happy and lead fulfilling lives. A 2011 Harvard study found that “[a]mong those surveyed, nearly 99% of people with DS indicated that they were happy with their lives, 97% liked who they are, and 96% liked how they look. Nearly 99% of people with DS expressed love for their families, and 97% liked their brothers and sisters.” In the same year, Boston Children’s Hospital found that 99 percent of parents or guardians of Down syndrome children loved their child and 79 percent “felt their outlook on life was more positive because of their child.” Ninety-four percent of siblings 12 and older reported that they were proud of their Down syndrome brother or sister, and 88 percent said that they were better people because of their sibling. Children with Down syndrome bring joy to everyone around them. And despite their limitations, they can go on to achieve great things. People like Karen Gaffney, who leads a non-profit foundation dedicated to advocating for those with Down syndrome, prove that point all the time. Gaffney has sw[u]m across Boston Harbor, completed a relay across the English Channel, and competed in the Escape from Alcatraz triathlon in the course of her advocacy.²⁸⁸

NBC CHI. (Nov. 21, 2019, 6:22 AM), <https://www.nbcchicago.com/news/local/workout-group-gives-colorblind-member-gift-of-lifetime-565157532.html> [<https://perma.cc/2LFD-484H>].

²⁸⁵ Polly Curtis, *Down’s Syndrome Changing Attitudes*, GUARDIAN (Sept. 1, 2007, 10:27 AM), <https://www.theguardian.com/stage/2007/sep/01/theatre3> [<https://perma.cc/4R89-EP5A>].

²⁸⁶ *Down Syndrome Facts*, NAT’L DOWN SYNDROME SOC’Y, <https://www.ndss.org/about-down-syndrome/down-syndrome-facts/> [<https://perma.cc/ES2L-6YG4>] (last visited Oct. 18, 2022).

²⁸⁷ *Facts About Down Syndrome*, NAT’L ASS’N FOR DOWN SYNDROME, <https://www.nads.org/resources/facts-about-down-syndrome/> [<https://perma.cc/8M9A-ZYKF>] (last visited Oct. 18, 2022).

²⁸⁸ *Planned Parenthood of Ind. & Ky., Inc. v. Comm’r of Ind. St. Dep’t of Health*, 888 F.3d 300, 315–16 (7th Cir. 2018) (Manion, J., concurring in the judgment in part and dissenting in part) (citations omitted).

One factor behind these improvements is that modern medicine has enabled surgeons to address the genetic heart defects often accompanying Down syndrome.²⁸⁹ Thus, it is an example of the extent to which medical advancements can reduce a genetic condition's effects on one's quality and length of life—what used to be a “burdensome” or “material” condition may become less so as medical science improves.

But even more important has been the role of changing societal attitudes regarding the condition and how to properly care for those with it. As more and more patients have been shifted toward home care, as opposed to being institutionalized, they have become significantly healthier and better cared-for.²⁹⁰ Once patients were no longer confined from birth in institutions, where they were often shackled, ignored, or forced to wear diapers, both their quality and length of life dramatically improved.²⁹¹ These changing societal attitudes were in fact “the main factor in improving the health and life expectancy” of patients, beyond even the medical advancements.²⁹² Once parents were disabused of their well-intentioned but ultimately misguided notions that their children “were better off hidden away than exposed to the cruelty and bullying of the outside world,” and once physicians stopped informing parents that institutionalization was what was best for people with Down syndrome, their children only became happier and healthier.²⁹³ In other words, the primary reason Down syndrome had such a grim prognosis and was viewed as such a burdensome condition was stigma, and once that stigma was reduced, proper care ensued, and the prognosis improved drastically.²⁹⁴ The perception of the condition, not the underlying genetics, was largely what resulted in Down syndrome being so “burdensome.”

Finally, Down syndrome also illustrates the difficulty of considering the economic burdens associated with raising a child with a disability or genetic condition. Healthcare costs for children with Down syndrome can be as much as twelve times higher than for children without.²⁹⁵ But such a statistic only reinforces how tricky the necessary line drawing can be: How many times higher do healthcare costs associated with a trait need to be before the burdens on parents are large enough to render that particular use of PGD and IVF fundamental? Twelve times? Ten? Four?

Furthermore, the economic burdensomeness of a condition is largely dependent on the status quo, which can be altered by government policy in addition to medical advancements and changing societal attitudes. If access to healthcare were expanded, for instance, then such burdens, like those twelvefold higher healthcare costs, might

²⁸⁹ *Survival: Down Syndrome Life Spans Lengthen*, N.Y. TIMES (July 31, 2001), <https://www.nytimes.com/2001/07/31/health/psychology/survival-down-syndrome-life-spans-lengthen.html> [<https://perma.cc/7EZW-TXRH>].

²⁹⁰ *Id.*

²⁹¹ *See* Curtis, *supra* note 285.

²⁹² *Id.*

²⁹³ *Id.*

²⁹⁴ *Id.*

²⁹⁵ *Data and Statistics on Down Syndrome*, CDC (Sept. 19, 2019), <https://www.cdc.gov/ncbddd/birthdefects/downsyndrome/data.html> [<https://perma.cc/TD7L-PCGG>].

be significantly reduced.²⁹⁶ Currently, both Medicare and Medicaid coverage for LTSS for those with disabilities is rather limited, despite LTSS being crucial for helping recipients live rich, fulfilling lives.²⁹⁷ Particularly, financial eligibility requirements, limited coverage of “durable medical equipment,” and a lack of coverage for personal care assistants often force those with disabilities into nursing homes or prevent them from holding jobs.²⁹⁸ But if, for instance, “Medicare for All” plans were enacted, then a lot of these gaps could be filled: not only could Medicare be made available for all Americans, but LTSS could also be provided through Medicare to all Americans with disabilities.²⁹⁹ If LTSS were available for all who needed it, regardless of income, then people with disabilities like Down syndrome could receive the assistance necessary to enable them to be maximally independent, significantly improving their quality of life while making them less dependent on—or “burdensome” to—their families.³⁰⁰ Therefore, a genetic condition that is currently economically burdensome may suddenly become more manageable with policy change, thus rendering these burdens alone insufficiently compelling to conclude that a fundamental right exists to use PGD and IVF to avoid that condition.³⁰¹

Overall, it does seem that influencing offspring characteristics pre-birth (like through PGD and IVF) could fit within the scope of procreative liberty. Thus, there would be a right to select offspring characteristics either generally or on the basis of sufficiently “material” or “burdensome” conditions. But serious normative and practical shortcomings with both of those possible touchstones for fundamentality remain.

B. Attempting to Influence Offspring Characteristics Pre-birth Is Deeply Rooted in American History and Tradition

The lack of a wholly neat fit within Supreme Court precedent is not dispositive, however. Beyond looking at whether the asserted right falls within the scope of rights embodied in prior substantive due process cases, the Court has also examined

²⁹⁶ *Id.*

²⁹⁷ Robyn Powell, ‘Medicare for All’ Must Truly Be for All—Including People with Disabilities, REWIRE NEWS (Mar. 13, 2019, 1:15 PM), <https://rewire.news/article/2019/03/13/medicare-for-all-must-truly-be-for-all-including-people-with-disabilities/> [<https://perma.cc/8FLY-S5VA>].

²⁹⁸ *Id.*

²⁹⁹ David M. Perry, *Mainstream Medicare-for-All Proposals Just Got a Lot More Inclusive*, PAC. STANDARD (Mar. 12, 2019), <https://psmag.com/news/medicare-for-all-supports-for-disabilities-sanders-jayapal> [<https://perma.cc/CV4L-7ZXS>].

³⁰⁰ *Id.*

³⁰¹ While some might question the relevance of broad policy measures in an area implicating prospective parents’ intensely personal and private choices, it is exactly such policy measures that might reduce some of the economic pressures, e.g., increased healthcare costs, that can prevent parents from exercising meaningful choice. In the changed policy landscape contemplated by this Article, parents would be freer to decide, without worrying about the financial implications, what characteristics they would or would not want their offspring to possess. *See supra* Sections III.B.4–5.

whether the right is deeply embedded in American history and tradition.³⁰² The technology of IVF was only invented in the 1970s,³⁰³ and PGD was first employed in 1989 to test for cystic fibrosis.³⁰⁴ Because the technology is only decades old, PGD and IVF might not (at least on their own) be “in any plausible sense ‘deeply rooted in this Nation’s history and tradition.’”³⁰⁵

But as before, if one were to go up a level of abstraction and look instead at general attempts at shaping offspring characteristics pre-birth, which seems likely in light of the technology’s closeness to other forms of procreation,³⁰⁶ then it becomes increasingly plausible that there may be a “deeply rooted” fundamental right.³⁰⁷ People have tried to influence the sex of their children for centuries, if not millennia,³⁰⁸ and have engaged in similar efforts to avoid disabilities or birth defects for just as long.³⁰⁹ Until more recently, such efforts were generally just ineffective superstitions, or they involved selective abortion and infanticide;³¹⁰ nevertheless, there is little doubt that, at both the Founding and the ratification of the Fourteenth Amendment, pre-birth attempts at influencing fetal health and other characteristics were widespread.³¹¹

³⁰² See *supra* notes 128–46 and accompanying text.

³⁰³ Zhu, *supra* note 184.

³⁰⁴ Davidson, *supra* note 184.

³⁰⁵ Coan, *supra* note 32, at 255 (quoting *Washington v. Glucksberg*, 521 U.S. 702, 721 (1997)).

³⁰⁶ See *supra* Section III.A.

³⁰⁷ See generally *Glucksberg*, 521 U.S. 702 (1997) (finding that there is a deeply rooted tradition in outlawing assisting someone in suicide).

³⁰⁸ See, e.g., Remaley, *supra* note 28, at 249–50 (discussing postconception uses of abortion and infanticide, along with preconception superstitions like “having sex in dry weather when the moon is full, the nut harvest is plentiful, and there is a north wind,” to attempt to select the sex of one’s offspring).

³⁰⁹ See, e.g., Kara Rogers, *9 Bizarre Myths About Pregnancy*, ENCYCLOPAEDIA BRITANNICA, <https://www.britannica.com/story/9-bizarre-myths-about-pregnancy> [<https://perma.cc/6ZCU-TKHJ>] (last visited Oct. 18, 2022) (eating spicy food or cutting one’s hair as causing blindness in children, or looking at ugly animals as causing unborn children to resemble them); Adam Smith, *The Weird and Wonderful Fertility Customs and Superstitions Women Face During Pregnancy*, METRO (Nov. 15, 2018, 7:58 AM), <https://metro.co.uk/2018/11/15/the-weird-and-wonderful-fertility-customs-and-superstitions-women-face-during-pregnancy-8111445/> [<https://perma.cc/2P96-R5F3>] (piercing the bread of a pregnant person with utensils as causing blindness in children).

³¹⁰ See *supra* notes 308–09 and accompanying text.

³¹¹ See, e.g., John M. DeSesso, *The Arrogance of Teratology: A Brief Chronology of Attitudes Throughout History*, 111 BIRTH DEFECTS RSCH. 123, 133–34 (2019) (discussing 1891 scientific paper concluding that birth defects can be caused by stimuli during first two months of gestation); Therese O’Neill, *What to Expect When You’re Expecting (100 Years Ago)*, WEEK (Jan. 10, 2015) (discussing gender selection, parents being physically and mentally healthy during sex to avoid birth defects, and foregoing sex during pregnancy to avoid harming child (citing JOHN KELLOGG, LADIES’ GUIDE IN HEALTH AND DISEASE (1884))); Ann Waldron, ‘Steel Magnolias’ of the Old South, WASH. POST (Apr. 10, 1990), <https://www>

And even if folk-tales and infanticide during the 1700–1800s do not suffice to establish a fundamental right (or they only establish a right to *try* to influence offspring characteristics, rather than to successfully do so³¹²), more recent history also strongly counsels in favor of finding the right deeply rooted. In particular, the advent of modern medicine has witnessed an improved understanding of pregnancy and the causes of birth defects. Since the 1950s, people have been taking folic acid supplements, both before and during early pregnancy, to prevent brain and spinal cord birth defects linked with a dietary deficiency of folate, a B-group vitamin.³¹³ Prospective parents commonly take other vitamin supplements too, in order to prevent certain conditions like anemia and osteoporosis and to ensure proper growth and development of the nervous system, bones, eyes, muscles, blood cells, etc.³¹⁴ Moreover, since the 1970s, science has also better acknowledged the harmful teratogenic, i.e., birth-defect-inducing, properties of “drugs, infectious diseases, synthetic hormones, environmental pollutants, alcohol[,] and smoking,”³¹⁵ so pregnant people can now avoid these substances to ensure their babies are healthier and unafflicted by birth defects or diseases like Fetal Alcohol Syndrome.³¹⁶ Furthermore, it is becoming

.washingtonpost.com/archive/lifestyle/wellness/1990/04/10/steel-magnolias-of-the-old-south/3d9648a2-ed0a-493b-912c-135428d788c3/ [https://perma.cc/PG66-VBXW] (doctors’ use of bleeding, leeches, purges, and drugs during pregnancy in Antebellum South); Brenda Wilmoth Lerner, *Obstetrics in the 1700s*, ENCYCLOPEDIA.COM, https://www.encyclopedia.com/science/encyclopedias-almanacs-transcripts-and-maps/obstetrics-1700s [https://perma.cc/MA77-BVLB] (last visited Oct. 18, 2022) (discussing late-eighteenth-century “advances associated with childbirth and obstetrics,” including encouraging childbirth “in rooms with fresh air and sunlight,” “admonish[ing] [patients] of the potential risks to their reproductivity brought about by wearing corsets,” and “identify[ing] pelvic deformities brought about by the fashionable low protein diet of wealthy women, as well as those caused by rickets in malnourished poorer women”); *Childbirth in Early America*, DIGIT. HIST. (2021), https://www.digitalhistory.uh.edu/topic_display.cfm?tcid=70 [https://perma.cc/B6YJ-VEUU] (discussing how “pregnancy was surrounded by superstitions” in Colonial America).

³¹² Such an argument, however, seems inconsistent with *Dobbs*. Just as the absence of a history of criminalizing pre-quickening abortions, likely resulting from the lack of “scientific methods for detecting pregnancy in its early stages,” did “not mean that anyone thought the States lacked the authority to do so,” *Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2236, 2251–52 (2022) (internal quotation marks and citation omitted), the ineffectiveness of pregnancy-related folk remedies does not suggest that Americans in the 1700–1800s thought of themselves as lacking either the ability or the right to alter offspring characteristics.

³¹³ Salim Al-Gailani, *Making Birth Defects ‘Preventable’: Pre-conceptional Vitamin Supplements and the Politics of Risk Reduction*, 47 *STUD. HIST. & PHIL. OF BIOLOGICAL & BIOMEDICAL SCI.* 278, 278 (2013).

³¹⁴ *Vitamins and Other Nutrients During Pregnancy*, MARCH OF DIMES (Feb. 2018), https://www.marchofdimes.org/pregnancy/vitamins-and-other-nutrients-during-pregnancy.aspx [https://perma.cc/DM87-5PDW].

³¹⁵ Al-Gailani, *supra* note 313, at 282.

³¹⁶ *Id.* at 286.

increasingly common for physicians to perform fetal surgeries to correct birth defects *in utero* and treat conditions like anemia, spina bifida, and amniotic band syndrome.³¹⁷

These methods have all been used for many decades to prevent birth defects and ensure that babies are born healthier, thus allowing parents to intentionally select against disabilities in their offspring. Unlike PGD and IVF, these practices do not enable parents to choose which offspring are born, but much like PGD and IVF, they do allow parents to, at the very least, potentially influence the characteristics and overall health of their children. Just as one could employ PGD and IVF to screen out embryos likely to possess a certain disability or genetic condition, one could use fetal surgery, take supplements, and avoid teratogens to yield healthier, “able-bodied” babies. Thus, these historical developments would suggest that, even if PGD and IVF are themselves fairly new, there is a centuries-old tradition of attempting to influence, and since at least the 1950s a tradition of successfully influencing, offspring health and characteristics prior to birth.

In addition to examining the history of the practice relating to the asserted right, the Court also often examines the history of state and federal statutes and regulations addressed at the practice.³¹⁸ Since the inception of PGD and IVF, there have been essentially no federal or state laws limiting their applications, nor any administrative agencies that determine the acceptable uses of the treatment.³¹⁹ Although the Clinical Laboratory Improvement Amendments apply to “[t]he genetic testing process itself,” and although the Food and Drug Administration may at some point require all genetic tests to be clinically valid, the purposes for which PGD and IVF are used are left solely to the discretion of doctors and professional organizations.³²⁰

But such professional self-regulation has also been minimal:

[P]rofessional guidance relevant to the use of PGD is scant and insufficient. Society guidelines are not legally binding, and many guidelines state that they are educational resources, not requirements. Furthermore, none of the relevant professional societies have promulgated conclusive guidelines aimed at restricting PGD to a set of ethically acceptable uses.³²¹

And this guidance has been inconsistent as well as scarce, e.g., the American Society for Reproductive Medicine changing its position on the ethics of using PGD for

³¹⁷ *Fetal Surgery*, MAYO CLINIC (Sept. 14, 2019), <https://www.mayoclinic.org/tests-procedures/fetal-surgery/about/pac-20384571> [<https://perma.cc/E8DW-FCHR>].

³¹⁸ *See, e.g.*, *Lawrence v. Texas*, 539 U.S. 558, 570 (2003).

³¹⁹ Michelle J. Bayefsky, *Comparative Preimplantation Genetic Diagnosis Policy in Europe and the USA and Its Implications for Reproductive Tourism*, 3 REPROD. BIOMEDICINE & SOC’Y ONLINE 41, 43 (2017).

³²⁰ *Id.*

³²¹ *Id.*

nontherapeutic sex selection.³²² The lack of any domestic regulation of PGD and IVF—bolstered by the absence of professional self-regulation—would therefore weigh in favor of a fundamental right. This lack of regulation is thus the opposite situation to *Bowers*, where America’s long history of criminalizing sodomy weighed against recognition of a fundamental right.³²³

If anything, with respect to state regulation of efforts at influencing offspring characteristics pre-birth more generally, governments have largely supported such practices. For instance, nations across the globe have adopted policies encouraging women to ingest folic acid to improve offspring health and potentially reduce birth defects.³²⁴ Widespread governmental support, including in the United States, of medical advancements that improve fetal health and alter offspring characteristics would thus suggest that there is a tradition of doing so and that the rights at stake are fundamental.³²⁵

In applying its tradition test, the Court will often further examine state common law as well as state statutes.³²⁶ Starting with Texas in the 1970s,³²⁷ states have increasingly recognized a cause of action for wrongful birth, with almost half now allowing such claims.³²⁸ In wrongful birth suits, parents sue a healthcare provider for malpractice, typically for negligently failing to inform them of their unborn child’s disability, genetic condition, or other disease, under the theory that they would have either aborted the fetus or not transferred the embryo as part of IVF had they been so informed.³²⁹ Because a birth occurs due to a physician’s negligence that otherwise would have been avoided, parents can recover the increased childrearing costs and the “non-pecuniary losses . . . for interference with family life.”³³⁰

These cases thus recognize a doctor’s duty to offer appropriate genetic testing, correctly assess the results, and timely notify parents.³³¹ The fact that roughly half the states have imposed on physicians a legal duty to test for and inform prospective parents of fetal or embryonic disabilities or birth defects suggests that parents have a right to such information. If it is wrongful for a doctor conducting PGD or prenatal diagnosis to neglect to inform prospective parents of a potential birth defect, disability,

³²² *Id.*

³²³ *Bowers v. Hardwick*, 478 U.S. 186, 192–94 (1986); see *Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2249–56 (2022) (describing “unbroken tradition of prohibiting abortion on pain of criminal punishment persist[ing] from the earliest days of the common law until 1973”).

³²⁴ Al-Gailani, *supra* note 313, at 278.

³²⁵ *Id.*

³²⁶ Krotoszynski, *supra* note 129, at 927–28.

³²⁷ *Jacobs v. Theimer*, 519 S.W.2d 846 (Tex. 1975).

³²⁸ Paola Frati et al., *Preimplantation and Prenatal Diagnosis, Wrongful Birth and Wrongful Life: A Global View of Bioethical and Legal Controversies*, 23 HUM. REPROD. UPDATE 338, 344 (2017) (listing the twenty-three states that recognize wrongful birth claims).

³²⁹ *Id.*

³³⁰ *Id.* at 343.

³³¹ *Id.* at 344.

or genetic abnormality, then it seems unlikely that the state could ban PGD and thereby prevent doctors from fulfilling their duty to test and disclose.

Furthermore, some states have even recognized a cause of action for wrongful life. These suits involve similar claims but a different posture, as they are brought on behalf of the child, arguing that they would have been better off not being born had the doctor properly diagnosed and informed the parents of the child's potential condition.³³² But largely out of a reluctance to accept the argument that nonlife is better than life, most states have rejected this cause of action.³³³ However, the fact that some nevertheless allow such suits reinforces the notion that doctors have a duty at least to the parents, and possibly to the unborn child, to correctly diagnose birth defects or disabilities and inform parents accordingly.³³⁴ And such a duty would suggest that states cannot validly ban PGD and IVF.

Overall, it seems likely that there is a “deeply rooted” right to influence offspring characteristics pre-birth (including through PGD) recognized in our “history and tradition.”³³⁵ Modern medicine has long enabled parents to alter offspring characteristics to make their children healthier and less “disabled.” There is no state or federal regulation of PGD; if anything, the government has encouraged parents to take vitamin supplements and improve fetal health prior to birth. And finally, the advent of wrongful birth and life actions at common law has established that doctors often have a duty to inform parents about birth defects or disabilities, such that parents have a right to receive that information—a right that the government likely could not freely abrogate.

C. There Is an International Consensus Regarding a (Limited) Right to Influence Offspring Characteristics Pre-birth

There is yet another factor the Court regularly resorts to in substantive due process cases: whether there is an international consensus, current or emerging, regarding the asserted right. This sort of reasoning was especially salient in *Lawrence v. Texas*, where Justice Kennedy charted the evolution over the preceding decades of societal attitudes and laws regarding homosexuality within the United States,³³⁶ the U.K., and other European countries.³³⁷ He concluded that this evolution was “at odds with the premise . . . that the claim put forward was insubstantial in our Western civilization.”³³⁸

³³² *Id.* at 343.

³³³ *Id.* at 346.

³³⁴ *See id.* at 346–52.

³³⁵ *Washington v. Glucksberg*, 521 U.S. 702, 705 (1997).

³³⁶ 539 U.S. 558, 572–74 (2003) (noting the change from fifty U.S. states outlawing sodomy to twenty-four at the time of *Bowers* to thirteen at the time of *Lawrence*, with only four actively enforcing such laws).

³³⁷ *Id.* at 572–73 (discussing a European Court of Human Rights decision legalizing same-sex intimacy in forty-five European nations).

³³⁸ *Id.* at 573.

As applied to PGD and IVF, there is an international consensus weighing in favor of a right to use the technology, albeit a limited one. In contrast to the complete absence of regulation within the United States, international regulation of PGD and IVF is fairly extensive, and a majority of European countries regulate PGD in some capacity.³³⁹ France and the U.K. have state agencies that oversee PGD and IVF, determine the uses for which the technology is approved, and can decide ad hoc to permit other uses by prospective parents.³⁴⁰ In general, the agencies permit PGD and IVF only when sufficiently serious medical conditions are implicated.³⁴¹ Other countries, including Italy and Switzerland, have legalized PGD in recent decades and permit its use for “therapeutic” purposes, although they, unlike France and the U.K., do not specify what conditions satisfy that criterion.³⁴² Despite initial concerns about the technology being a slippery slope for policies reminiscent of Naziism, Germany has also legalized the practice in the past decade, but only for “severe, incurable illnesses” that are “genetically detectable in the embryo.”³⁴³ Meanwhile, Sweden and Spain have passed legislation limiting the approved uses of PGD, citing concerns over sex selection and savior siblings, while the Netherlands, Greece, Belgium, and Israel have, like France and the U.K., established national agencies to oversee PGD and control its approved uses.³⁴⁴ Outside Europe, Australia has, similarly to the U.K., established the Infertility Treatment Authority to regulate PGD and IVF, delineate their approved uses, and allow additional uses ad hoc.³⁴⁵

Despite regulatory frameworks differing by country, Western nations have largely legalized PGD and IVF while restricting the treatment’s approved uses.³⁴⁶ And the trend has definitely favored legalization and regulation, with Switzerland, Italy,³⁴⁷ Germany,³⁴⁸ and Ireland³⁴⁹ all doing so in the past ten years, such that PGD

³³⁹ Bayefsky, *supra* note 319, at 42.

³⁴⁰ *Id.* at 43; Bayefsky, *supra* note 26, at 1161.

³⁴¹ *See* Bayefsky, *supra* note 319, at 42.

³⁴² *Id.* at 42–43.

³⁴³ Bettina Bock von Wülfingen, *Contested Change: How Germany Came to Allow PGD*, 3 REPROD. BIOMEDICINE & SOC’Y ONLINE 60, 61–64 (2016).

³⁴⁴ Vacco, *supra* note 28, at 1200.

³⁴⁵ *Id.* at 1208–09.

³⁴⁶ Bayefsky, *supra* note 319, at 42–43 (contrasting the approach of France and the U.K., which limit PGD usage to serious medical conditions and regulate these conditions precisely, with that of Switzerland and Italy, which instead have legalized PGD without specifying the set of conditions for which it can be used).

³⁴⁷ *Id.* at 42.

³⁴⁸ Wülfingen, *supra* note 343, at 61.

³⁴⁹ *See, e.g.,* Xavier Symons, *Ireland to Permit PGD*, BIOEDGE (Jan. 20, 2018), <https://www.bioedge.org/bioethics/ireland-to-permit-pgd/12565> [<https://perma.cc/F7EA-C8XG>]; *World First for Irish IVF Clinic with Successful PGD Pregnancy for a Fatal Inherited Disease*, CORK FERTILITY CENTRE, <https://springboardpr.ie/world-first-for-irish-ivf-clinic-with-successful-pgd-pregnancy-for-a-fatal-inherited-disease/> [<https://perma.cc/R9GW-8T6A>] (last visited Oct. 18, 2022).

is now available in over twenty European countries.³⁵⁰ The increasingly widespread legality of the practice weighs in favor of a right to use PGD and IVF, but the fairly extensive regulation of the technology's permissible uses would suggest that the right is not unfettered.

Moreover, at a higher level of generality, the fact that the international community has consistently worked to promote folic acid supplements and other practices aimed at improving fetal health demonstrates international recognition of the right to influence offspring characteristics pre-birth.³⁵¹ In sum, as regards the United States, these international developments weigh in favor of a fundamental right (though possibly limited in scope) to use PGD and IVF.

V. WHAT SORTS OF GOVERNMENT REGULATIONS COULD SURVIVE STRICT SCRUTINY?

In general, the Court will apply two different standards of review when evaluating the constitutionality of laws challenged on substantive due process grounds.³⁵² Rational basis review affords the least amount of protection and is typically applied only in the absence of any fundamental right.³⁵³ Its application can thus be safely ruled out here, operating under the assumption that, based on precedent, history, and international regulation, there is a fundamental right to use PGD and to influence offspring characteristics more generally. Upon recognition of a fundamental right, the presumptive standard of review is strict scrutiny,³⁵⁴ indeed, given *Dobbs*'s vigorous rejection of both the undue burden standard and the right to abortion more generally, it is safe to assume that strict scrutiny is now the sole standard for any and all fundamental rights.³⁵⁵ To survive such scrutiny, a law must be narrowly tailored to achieve a compelling governmental interest, which typically requires that it be a necessary means to a very important end.³⁵⁶

A. *Compelling State Interests Implicated by PGD*

In the context of using PGD to screen for disabilities or genetic conditions, potential interests would include preventing the various third-party harms associated

³⁵⁰ Anniek Corveleyn et al., *Preimplantation Genetic Diagnosis in Europe*, in JRC SCI. & TECH. REPORTS 1, 13 (2007).

³⁵¹ See Al-Gailani, *supra* note 313, at 278.

³⁵² See, e.g., Valerie J. Pacer, Note, *Salvaging the Undue Burden Standard—Is It a Lost Cause? The Undue Burden Standard and Fundamental Rights Analysis*, 73 WASH. U.L.Q. 295, 297 n.11 (1995) (discussing “the Supreme Court’s ‘two-tier scrutiny’ [employed in its] . . . substantive due process analysis”).

³⁵³ See, e.g., *id.*; Roman Cath. Diocese v. Cuomo, 141 S. Ct. 63, 70 (2020) (Gorsuch, J., concurring).

³⁵⁴ See, e.g., Pacer, *supra* note 352, at 297 n.11.

³⁵⁵ *Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2272–75 (2022).

³⁵⁶ See, e.g., Pacer, *supra* note 352, at 297 n.11; *Roe v. Wade*, 410 U.S. 113, 155 (1973).

with PGD, namely disability discrimination, the commodification of children, discrimination based on genetics more generally, and eugenics. Given Justice Thomas and Judges Shepherd, Griffin, and Bush have all argued that there is a compelling governmental interest in preventing abortion from being used for eugenic purposes or to engender discrimination against the disabled,³⁵⁷ the Court would almost certainly conclude that the state has a compelling interest in preventing PGD from being used in the same manner.³⁵⁸

B. Potential Narrowly Tailored Regulations

On the strength of such interests, the state could potentially ban all uses of the technology to screen for insufficiently serious (or “nontherapeutic”) conditions, and it could very likely create expert agencies (to delineate appropriate uses of the technology) or establish informed consent requirements and waiting periods.

1. Banning “Nontherapeutic” Uses

Although the above interests are very likely compelling, any regulatory means employed by the state must still be narrowly tailored. First, banning wholesale all uses of PGD would clearly be inconsistent with recognizing any sort of fundamental right to use the technology. However, banning all *nontherapeutic* (or nonmedical) uses of PGD and IVF, or analogously, all uses of the technology targeting embryonic characteristics that do not substantially affect childrearing burdens or are not material to reproductive decision making, might survive strict scrutiny.

With such a ban, parents could not use the technology for purely nonmedical characteristics, like height, eye color, or intelligence, or for genetic conditions that, like color blindness, are fairly minor and do not substantially impact the child’s quality or length of life or significantly burden the parents. Such characteristics almost certainly would not fall within procreative liberty’s scope, both because their presence or absence would very likely not be “material” to or determinative of the parents’ reproductive decisions, and because significant childrearing burdens would not be implicated.³⁵⁹ Not only would the parents’ interests in avoiding certain offspring characteristics be at their lowest when the traits are nonmedical or do not otherwise significantly impact childrearing, but also state interests in preventing children from being commodified and in avoiding discrimination against those with the undesired characteristics are at their zenith.³⁶⁰ As a result, states would almost

³⁵⁷ See *supra* Part II.

³⁵⁸ Cf. *Dobbs v. Jackson Women’s Health Org.*, 142 S. Ct. 2228, 2284(2022) (“[L]egitimate state interests” in “regulating abortion . . . include . . . the prevention of discrimination on the basis of race, sex, or disability.”).

³⁵⁹ See *supra* Section IV.A.2.

³⁶⁰ In other words, the burdensomeness of a condition, despite the problems associated with line drawing, would likely be relevant to a court’s conclusions regarding both whether

certainly have compelling interests in preventing the use of PGD and IVF to select embryos on the basis of nontherapeutic conditions or minor genetic disorders, and a wholesale ban would certainly effectuate those interests.³⁶¹

However, it is not clear that this mechanism would be sufficiently narrowly tailored. And the reason is once again line drawing³⁶²—what does “nontherapeutic” mean exactly? If colorblindness is insufficiently serious to qualify as therapeutic, what about ADHD, Down syndrome, or blindness? It would be rather difficult for physicians and patients to identify where along the spectrum from fatal to cosmetic a given genetic condition lies.³⁶³ Thus, this vagueness might prevent a straightforward ban on nontherapeutic uses of PGD from being as narrowly drawn as it needs to be to survive strict scrutiny.

2. Expert Agency to Determine Approved Uses

Thus, were the government to seek even more nuanced or tailored regulation of PGD and IVF than simply banning all screening for nontherapeutic traits or minor conditions, it would likely need to draw some lines and to vary its regulation of the technology based on the seriousness of the traits at issue. To that end, the federal or state governments could potentially adopt a framework comparable to that found in several European nations. Under this regulatory approach, a government body would compile “a list of conditions for which PGD [is] approved,” and for all other conditions not listed, the agency could decide case-by-case whether to permit PGD’s use to screen for that trait, collecting evidence regarding the childrearing burdens a disease may pose and evaluating the seriousness of the condition, the probability of the trait being inherited, and accounts from those living with the condition.³⁶⁴ The agency could use this evidence and its expertise to ban the use of PGD to screen for what it identifies as nontherapeutic traits or minor genetic conditions, furthering state interests in avoiding discrimination and commodification. Simultaneously, the agency could allow all uses of PGD to screen for genetic diseases or disabilities deemed sufficiently serious to merit inclusion on the list of approved conditions, such as Tay-Sachs or Huntington’s, thereby respecting parental interests in avoiding

there is a fundamental right and whether any regulations curtailing that right are sufficiently narrowly tailored.

³⁶¹ *Cf.* *Preterm-Cleveland v. McCloud*, 994 F.3d 512, 547–48 (6th Cir. 2021) (en banc) (Bush, J., concurring) (asserting that a ban on discriminatory abortions is the most narrowly tailored way to eradicate them).

³⁶² *See supra* Section III.C; Section IV.A.2.

³⁶³ *Cf.* *Lifchez v. Hartigan*, 735 F. Supp. 1361, 1363–67 (N.D. Ill. 1990) (striking down an Indiana law prohibiting fetal experimentation absent a therapeutic benefit to the fetus in part because it was unconstitutionally vague, as “experimentation” and “therapeutic” were undefined and ostensibly broad enough to apply to IVF and PGD precursors, leaving physicians without a clear concept of what conduct was prohibited); *Forbes v. Napolitano*, 236 F.3d 1009, 1010 (9th Cir. 2000) (similar); *Jane L. v. Bangert*, 61 F.3d 1493, 1502 (10th Cir. 1995) (similar).

³⁶⁴ *Bayefsky, supra* note 26, at 1160–61.

diseases entailing substantial suffering or burdens. Furthermore, the agency could consider evidence regarding the possibility of reducing or eliminating the childrearing burdens associated with a condition through policy reforms, medical and technological advancements, or changing societal attitudes, thus ensuring continued, flexible sensitivity toward state interests in avoiding discrimination and eugenics.

In contrast, a court may not be well-situated to determine the fundamentality of an asserted right to use PGD and IVF to select against embryos with a specific genetic disorder or disability, due to both the malleability of a condition's burdensomeness and the difficulties with assessing materiality.³⁶⁵ Thus, it would likely be problematic for courts to enshrine specific uses of PGD and IVF within the Fourteenth Amendment based on such amorphous, variable concepts. However, an apolitical government body of experts, such as bioethicists, physicians, disability rights advocates, and reproductive rights advocates, capable of examining the aforementioned empirical evidence and accounting for changes over time, could flexibly add or remove genetic disorders from the list of approved uses of PGD. This institution would therefore be better suited for such tough, fact-specific assessments and for balancing parental interests against state interests.³⁶⁶

Specifically, the government body could resemble that of England,³⁶⁷ although the exact statutory mechanisms for the agency's establishment are beyond the scope of this Article. Nevertheless, there are several primary aims for which such a body should strive: ensuring the participation of experts; insulating the agency from the political pressures associated with changing administrations that may differ in their support for reproductive rights; and committing to intersectionality and diversity in viewpoints. The third of those objectives would be especially important in light of the pre-*Roe* history of abortion committees, declared unconstitutional in *Doe v. Bolton*,³⁶⁸ where physicians, largely white men, were tasked with deciding which patients should be able to receive abortions, a regime that made it "especially difficult for the poor and nonwhite to qualify."³⁶⁹

³⁶⁵ See *supra* Section IV.A.2.

³⁶⁶ Cf. *Washington v. Glucksberg*, 521 U.S. 702, 787–88 (Souter, J., concurring in the judgment) ("[W]hichever way the Court might rule today, events could overtake its assumptions, as experimentation in some jurisdictions confirmed or discredited the concerns about progression from assisted suicide to euthanasia. Legislatures, on the other hand, have superior opportunities to obtain the facts necessary for a judgment about the present controversy. Not only do they have more flexible mechanisms for factfinding than the Judiciary, but their mechanisms include the power to experiment, moving forward and pulling back as facts emerge within their own jurisdictions.").

³⁶⁷ See *Vacco*, *supra* note 28, at 1201 (describing the composition of the U.K.'s Human Fertilisation and Embryology Authority as half specialists in the areas of medicine and research and half specialists in other areas, with the diversity of viewpoints intended to "assure[] public representation").

³⁶⁸ 410 U.S. 179 (1973).

³⁶⁹ Alan Charles & Susan Alexander, *Abortions for Poor and Nonwhite Women: A Denial of Equal Protection*, 23 HASTINGS L.J. 147, 148 (1971).

With that caveat in mind, this system would almost certainly be narrowly tailored to the state's compelling interests—especially since nontherapeutic or otherwise potentially troubling uses of the technology are already occurring.³⁷⁰ And the establishment of an expert agency would likely be superior to a statute that merely, and inflexibly, prohibits “nontherapeutic” uses, as creating an expert agency capable of specifically defining which conditions are eligible for PGD would avoid some of the vagueness issues associated with a straightforward ban.³⁷¹

3. Informed Consent and Waiting Periods

Moreover, other means would likely be available to the state, either as an alternative to or a supplement for regulations restricting access to certain uses of PGD and IVF. For instance, states could continue to allow virtually unfettered discretion to patients and physicians regarding their assisted reproductive choices while simultaneously attempting to address the misinformation or ignorance that many disability rights advocates fear underlie such decisions.³⁷² Perhaps states could enact waiting periods and informed consent requirements before prospective parents can proceed with screening or implantation, analogous to those measures that have been upheld as constitutional in the abortion context³⁷³—especially now that the undue burden standard has been replaced with rational basis review for abortion regulations.³⁷⁴ Much like states may require a patient to wait twenty-four hours prior to receiving an abortion, and physicians to “inform the woman of the nature of the procedure, the health risks of the abortion and of childbirth, and the ‘probable gestational age of the unborn child,’” states could similarly mandate waiting periods for and physician provision of information to patients undergoing IVF.³⁷⁵ If prospective parents were seeking to avoid implanting an embryo with, e.g., Down syndrome, physicians may be required to inform them that the quality and length of life of patients with Down syndrome have improved dramatically over the past few decades;³⁷⁶ that LTSS, despite gaps in coverage, may be available through Medicaid or Medicare to help alleviate any financial burdens;³⁷⁷ and that many parents of children with the condition have found their childrearing experiences profoundly fulfilling.³⁷⁸

³⁷⁰ See *supra* Section I.C.

³⁷¹ See, e.g., Norton, *supra* note 29, at 1617.

³⁷² See *supra* Section I.C.1.

³⁷³ See, e.g., Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 881–87 (1992).

³⁷⁴ Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2283–84 (2022).

³⁷⁵ Casey, 505 U.S. at 881.

³⁷⁶ See *supra* Section IV.A.2.

³⁷⁷ See *supra* Section IV.A.2.

³⁷⁸ See, e.g., Brian G. Skotko, Susan P. Levine & Richard Goldstein, *Having a Son or Daughter with Down Syndrome: Perspectives from Mothers and Fathers*, 155A AM. J. MED. GENETICS 2335, 2335 (2011) (“99% [of respondents] reported that they love their son or daughter; 97% were proud of them; 79% felt their outlook on life was more positive because of them; 5% felt embarrassed by them; and 4% regretted having them.”).

Through such measures, the state would have a mechanism for ensuring parental choices are fully informed, rather than based on stigma toward or misunderstanding of those with disabilities. As a result, states could fulfill their compelling interests in avoiding eugenics and discrimination toward Americans with disabilities without potentially impinging upon the procreative liberty and reproductive choices of people undergoing IVF. Accordingly, such measures—which seek to tackle eugenic “market forces” and to make the use of PGD more informed, rather than bar access to certain uses—would certainly be narrowly tailored.

One thing to note, however, is the difference between these proposed waiting periods and informed consent requirements and those that have been upheld—despite substantial criticism—in the abortion context. Abortion waiting periods have been attacked for imposing significant economic burdens on patients (particularly on poor or rural patients and people of color),³⁷⁹ while informed consent requirements have been accused of compelling physicians to disseminate misinformation to patients regarding the pain to the fetus, the risk of breast cancer, and the various other physiological harms allegedly associated with abortions.³⁸⁰ But such concerns seem less salient in the context of PGD and IVF. Given the time and expense involved with the procedure,³⁸¹ an additional waiting period is less likely to impose a substantial economic burden that might foreclose going through with the treatment, unlike with a similar waiting period in the context of an abortion—not to mention that abortions are necessarily more time sensitive. And there is a serious risk of misinformation as a motivating factor for screening against certain embryonic disabilities or genetic disorders,³⁸² whereas people who have decided to get an abortion are generally already informed and only rarely change their minds upon the provision of the required informational materials or, in some states, even undergoing compulsory ultrasounds.³⁸³ Thus, an informed consent requirement also seems less problematic in the PGD and IVF context.

These regulations could become yet more effective were the government to supplement informed consent requirements with expanded access to healthcare and LTSS for those with disabilities. If those with disabilities had greater access to medical care, equipment like wheelchairs, and personal care assistants, then they would be able to stay in their homes or communities, rather than end up at expensive

³⁷⁹ See, e.g., Lisa R. Pruitt & Marta R. Vanegas, *Urbanormativity, Spatial Privilege, and Judicial Blind Spots in Abortion Law*, 30 BERKELEY J. GENDER L. & JUST. 76, 81–82 (2015).

³⁸⁰ See, e.g., Harper Jean Tobin, *Confronting Misinformation on Abortion: Informed Consent, Deference, and Fetal Pain Laws*, 17 COLUM. J. GENDER & L. 111, 113 (2008).

³⁸¹ See VanHoose, *supra* note 266.

³⁸² See *supra* Section I.C.1.

³⁸³ See, e.g., Ushma D. Upadhyay et al., *Evaluating the Impact of a Mandatory Pre-abortion Ultrasound Viewing Law: A Mixed Methods Study*, 12 PLOS ONE 1, 1 (2017) (finding a Wisconsin ultrasound law led to only a 2.5% increase in the number of women who continued their pregnancies).

nursing homes, and they could more easily hold jobs and otherwise actualize their talents and abilities. As a result, the higher healthcare costs and other economic burdens posed by disabilities, i.e., “the material aspects of disability oppression,” would be mitigated. Thus, when coupled with informed consent requirements, this measure could reduce the barriers both stigma and economic burdens may pose to prospective parents deciding whether to implant an embryo with a certain condition.

Ultimately, then, attempting to eliminate the sociopolitical forces driving “laissez faire” eugenics (whether through healthcare reform, informed consent requirements, etc.) is the most targeted—the most narrowly tailored—solution to the third-party harms implicated by PGD and other ARTs. Jurists like Judge Bush have argued that “[a] prohibition on eugenic abortions would be the least restrictive way to further states’ compelling interest in eradicating them.”³⁸⁴ By analogy, a ban on all uses of PGD, or on the use of PGD to screen for nontherapeutic conditions, would likewise be the least restrictive way to prevent eugenics in the IVF context. But that is not the case. Removing economic pressures to screen against disabilities, e.g., expanding access to healthcare and LTSS, as well as stigmatic pressures, e.g., implementing informed consent requirements to address misinformation regarding disabilities, would directly get at the underlying forces that result in genetic screening against those with disabilities or other disfavored characteristics. This form of regulation would therefore be *even more* narrowly tailored, as well as less intrusive upon parental choice.

CONCLUSION

As the increasing regulation of genetic screening in the abortion context inevitably bleeds over into the context of IVF and other ARTs, courts will find themselves facing tough questions. If someone challenges a law restricting their access to IVF and PGD on substantive due process grounds, how should courts define the right at issue? Is there a basis in precedent, history and tradition, or international regulation of the technology for recognizing the right, so defined, as fundamental? Finally, which sorts of government regulations, intended at preventing the potential third-party harms implicated by PGD, could survive strict scrutiny?

This Article has sought to tackle those questions in advance of the impending regulation of PGD and the legal challenges that will follow. It has demonstrated that the right should be defined broadly—because of its resemblance to other procreation-related rights that have received similarly broad treatment from the Court—and has combated the counter-argument that PGD’s potential third-party harms should result in a narrow definition, or potentially even a characterization of the practice as eugenics. This Article has argued that the right to use PGD, broadly construed as the right to influence offspring characteristics pre-birth, is fundamental: It fits within the scope of the Court’s procreative-liberty precedents (albeit not entirely neatly). It is

³⁸⁴ Preterm-Cleveland v. McCloud, 994 F.3d 512, 548 (6th Cir. 2021) (Bush, J., concurring).

deeply rooted in our nation's history and tradition in light of the relevant medical history, the absence of domestic regulation of the practice, and the common law's recognition of wrongful birth and life suits. And it has received international recognition. Finally, this Article has shown that, even when the government's actions are strictly scrutinized, it could still act to prevent disability discrimination, genetic discrimination, the commodification of children, and eugenics through measures like informed consent requirements, waiting periods, or the creation of expert agencies to oversee the use of genetic screening.

The approach for which this Article advocates would strike a balance between jurisprudential consistency, safeguarding parental autonomy, vindicating government interests, and respecting the limits of judicial expertise. Treating ARTs similarly to contraceptives and therefore as falling within the scope of procreative liberty—even though ARTs like PGD can implicate third-party harms—would be consistent with the Court's historically broad treatment of rights relating to reproduction. Recognizing a right to use ARTs like PGD would safeguard procreative autonomy and ensure that parents are not faced with a choice between foregoing reproduction and risking having children with devastating genetic conditions. But the government need not be blind to the risk that parents might employ the technology in such a way as to engender broader societal harms like disability discrimination; under this proposed approach, the state could still regulate to limit problematic uses of the technology or to root out the financial constraints or stigma that may underlie the decision to screen against a certain condition. Furthermore, by not having to assess the right to access PGD on a condition-by-condition basis (whether as part of ascertaining if the right to a given use of the technology is fundamental or instead if government regulation of that use would survive strict scrutiny), courts can avoid wrestling with tough line-drawing questions potentially beyond their competency. And ultimately, by defining the right broadly, recognizing it as fundamental, and concluding that certain forms of regulation could nonetheless survive strict scrutiny, the Court could set the stage for the political process to tackle the economic and stigmatic pressures that motivate the most problematic uses of PGD. Through this *outside-the-Box* solution, our society can better enable truly, fully free reproductive decision making.