MAKING MOMMIES: LAW, PRE-IMPLANTATION GENETIC DIAGNOSIS, AND THE COMPLICATIONS OF PRE-MOTHERHOOD

KIMBERLY M. MUTCHERSON*

> "The major threats from coming advances in reproductive technology are not medical but political, social and philosophical."[1]

Debate and concern about the ability to manipulate human life through the use of reproductive technologies is not new. As the use of technology slowly spreads, it becomes necessary to critically evaluate how calls to regulate this technology, by constraining access to or limiting particular uses of particular technologies, will impact long-standing conundrums about reproduction, parenting, and the law. To that end, this Article focuses on three topics: 1) the potential for legal regulation of pre-implantation genetic diagnosis, also known as PGD; 2) the relationship between such future regulation and the existing legal landscape attendant to parenting, procreation, and pregnancy; 3) and the specific consequences for women of legal incursion into PGD decision-making.[2] PGD refers to a

---

* Associate Professor of Law, Rutgers School of Law–Camden. Many thanks to the participants of the 2006-2007 Institute for Research on Women Seminar on Health and Bodies at Rutgers University. My exposure to their work and their comments on my work were of tremendous assistance. Thanks also to the participants in the junior faculty colloquium at Rutgers School of Law-Camden, Professor Sally Goldfarb, the staff of the Columbia Journal of Gender and Law, and the Center for Bioethics at the University of Pennsylvania. Finally, as always, thanks to Max and Josephine for allowing me to be their Mama and to Samantha for sharing the journey with me.

[1] GREGORY STOCK, REDESIGNING HUMANS 155 (2003).

[2] This Article deliberately does not engage in substantial discussion of the consequences of PGD and other reproductive technology for the children born of it or those who are not born because of it, other than to reference the disability critique of embryo screening. It is critical that the medical community continue to study both the physical and perhaps psychological ramifications of reproductive technology for the children who owe their lives to these advances in science, but these worries are put aside though certainly not because they are unworthy of study.

process of testing embryos prior to implantation in order to determine various genetic characteristics. Pre-implantation testing is frequently employed to determine whether the future child will have a particular disease or disability, but testing can also be used simply to determine sex.

Using PGD as a representative reproductive technology, this Article focuses on motherhood and mothering, and the metamorphosis of legal controls on motherhood that is occasioned and increased by access to progressively more transformative types of reproductive technology. As the Article describes, motherhood is contested territory and many women struggle to conform to their own definitions of what it means to be a "good mother" and avoid the dreaded label of "bad mother." The law is not neutral on motherhood, and it has long acted as a conforming force by setting overt or covert minimum standards of parenting in general and of mothering in particular. More perniciously, the law has been wielded unevenly and in a discriminatory fashion, which has led to disproportionate representation of the poor and people of color in the nation's child welfare system. In doing so, the law participates in a process of naming some women bad mothers and questioning, even at times denying, their right to parent.

The binding power of the law when it comes to motherhood is only partially about dictating access to parenting, controlling relationships between mothers and their children, manipulating choices about the use of certain medical procedures, and involving itself in alternative means of family formation. As importantly, the law wields expressive power in this arena meaning that regulations or laws that criminalize, prohibit, discourage, or punish choices or behaviors transmit messages that can provoke shame or embarrassment and lead to ostracism and approbation. We know that laws dictate norms of behavior. In doing so, they help us to understand our place in society and the value that our society places upon us. Therefore, it is a very serious thing when the law begins to create specific edicts of behavior for reproductive decisions.

Through an analysis of the law's eventual approach to PGD, this Article explains how future regulatory actions will play a role in expanding the category of bad mother. Women across a broad spectrum of life experiences and socioeconomic circumstances might find themselves grouped with less advantaged women who have long struggled to free themselves from the yoke of the bad mother label. These moments of shared denigration could create unexpected and potentially powerful allegiances among mothers. But, even if they do not, legal regulation of choices related to the use of reproductive technology will become part of the landscape of how the law categorizes and values motherhood. By extrapolating into the future, this Article provides guidance to those

legislative and policymaking bodies that seek to intrude in an arena that is of tremendous personal importance and that involves one of the most private matters affecting human beings—the quest for progeny.

Part I begins with a description of the medical landscape attendant to modern pregnancies in the United States. It then highlights some of the controversies and difficulties technology brings to the experience of pregnancy and pre-pregnancy, including both the potential pressures on women to accede to prenatal testing and the critiques of the manner in which PGD has been employed to reject embryos that fail to meet certain standards of supposed normality. It ends by evaluating why a state legislature might choose to regulate PGD though it has not regulated prenatal testing in any profound way.

Part II discusses the myriad ways in which existing law impacts procreative and parental decision-making, and how the public nature of procreation and pregnancy make this stage of life ripe for regulation and categorization that is deeper and more intimate than is often the case when the law regulates non-pregnant bodies. More specifically, this section emphasizes the disparate gender impact of such regulation. The section particularly focuses on the vagaries of restrictive abortion regulation to highlight the link between how states have chosen to regulate abortion and future attempts to regulate PGD.

Part III imagines and contemplates the constitutionality of future state regulation of PGD, specifically a potential ban on the technology or limitations on its uses. Part IV articulates the likely consequences of future legislation for women and explains how many legislative choices, including bans or limitations on the use of PGD, will negatively impact many women, partly by continuing attempts to delineate categories of good and bad motherhood. Finally, the Article concludes that regulation of PGD is an idea that should not yet be put into practice.

I. THE AGE OF HIGH TECH PREGNANCIES

> "Each time a new technological development is hailed the same question arises: is this liberation, or oppression in a new guise?"[3]

> "Preimplantation diagnosis . . . offers the prospect of 'admission standards' for all fetuses produced by such techniques."[4]

---

[3] RITA ARDITTI ET AL., TEST-TUBE WOMEN 2 (1984).

According to historical records, the first urine-based pregnancy test was available as early as 1350 B.C. in ancient Egypt.[5] The potentially pregnant women who urinated on wheat and barley seeds to determine the sex of their future babies could not have imagined the possibilities for planning, monitoring, and ending a pregnancy that are available in the twenty-first century. By the 1950s, the obstetrical field began to offer ultrasounds so that the womb became transparent.[6] Such tests became routine by the 1980s.[7] Also in the 1950s, physicians experimented with prenatal tests like amniocentesis,[8] or amnio, to determine potential infirmities with a fetus.[9] And, by the 1970s, such testing became routine for limited categories of women including those thirty-five or older at the time of delivery.[10]

---

[4] Marsha Saxton, *Why Members of the Disability Community Oppose Prenatal Diagnosis and Selective Abortion*, *in* PRENATAL TESTING AND DISABILITY RIGHTS 147, 158 (Erik Parens & Adrienne Asch, eds., 2000).

[5] Nat'l Insts. of Health, The History of the Pregnancy Test Kit: A Timeline of Pregnancy Testing, http://history.nih.gov/exhibits/thinblueline/timeline.html (last visited Apr. 1, 2009).

[6] PRESIDENT'S COMM'N FOR THE STUDY OF ETHICAL PROBS. IN MED. AND BIOMED. AND BEHAV. RES., SCREENING AND COUNSELING FOR GENETIC CONDITIONS: A REPORT ON THE ETHICAL, SOCIAL, AND LEGAL IMPLICATIONS OF GENETIC SCREENING, COUNSELING, AND EDUCATION PROGRAMS 26 (1983), *available at* http://www.bioethics.gov/reports/past_commissions/geneticscreening.pdf.

[7] *Id.* at 27.

[8] An amniocentesis, or amnio, is "a diagnostic procedure performed by inserting a hollow needle through the abdominal wall into the uterus and withdrawing a small amount of fluid from the sac surrounding the fetus." *Amniocentesis*, MEDLINE PLUS MEDICAL ENCYCLOPEDIA, http://www.nlm.nih.gov/medlineplus/ency/article/003921.htm (last visited Sept. 11, 2007). When performed, an amnio can reveal if a fetus has a "chromosomal disorder[ ] such as Down syndrome, structural defects such as spina bifida (open spine, where the vertebrae fail to close), anencephaly (a condition in which the brain is incomplete or missing), and many rare, inherited metabolic disorders." *Id.*

[9] Sonia Mateu Suter, *The Routinization of Prenatal Testing*, 28 AM. J.L. & MED. 233, 235 (2002).

[10] *Id.* It has been asserted that the widespread use of amniocentesis for women of advanced maternal age can be attributed in great part to lawsuits brought in the 1970's by women whose obstetricians did not refer them for testing and who gave birth to children with impairments. Cynthia M. Powell, *The Current State of Prenatal Genetic Testing in the United States*, *in* PRENATAL TESTING AND DISABILITY RIGHTS, *supra* note 4, at 44, 45. By 1983, "the American Academy of Pediatrics and the American College of Obstetrics and Gynecology recommended that all pregnant women thirty-five or older at the time of

By 1973, when the Supreme Court decided that women have a constitutional right to an abortion, the availability of prenatal testing allowed women to gather information to help them decide whether to terminate a pregnancy or carry it to term.[11] Since 1976, the fertility industry has given women the opportunity to have their eggs fertilized ex vivo, or outside of the body, and then implanted in their bodies or that of a chosen surrogate through in-vitro fertilization (IVF).[12] New prenatal testing available earlier in the pregnancy, such as Chorionic Villus Sampling (CVS) which can be performed as early as ten weeks into a developing pregnancy,[13] has been available to pregnant women in recent decades as an alternative to second-trimester procedures like amnio. Since the early 1990s, women have been able to seek screening of their embryos through PGD to avoid implanting embryos with the potential for disease and, in some cases that will be discussed later in this Article, to actually increase

---

delivery be offered amniocentesis; thus amniocentesis became a routine part of obstetric care." *Id.*

[11] Roe v. Wade, 410 U.S. 113 (1973). Even as the Court has chipped away at this right as the years progressed, the core right to choose an abortion remains protected, though with increasing limitations. *See* Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833 (1992) (upholding certain restrictions on a woman's right to access abortion including forced waiting period and informed consent requirements); Gonzales v. Carhart, 550 U.S. 124, 127 S. Ct. 1610 (2007) (upholding a Congressional ban on a second-trimester abortion procedure called "partial birth abortion").

[12] *See generally* ROBIN MARANTZ HENIG, PANDORA'S BABY: HOW THE FIRST TEST TUBE BABIES SPARKED THE REPRODUCTIVE REVOLUTION (2004).

[13] CVS entails "the removal of a small piece of tissue (chorionic villi) from the uterus during early pregnancy to screen the baby for genetic defects." *Chorionic Villus Sampling*, MEDLINE PLUS MEDICAL ENCYCLOPEDIA, http://www.nlm.nih.gov/medlineplus/ency/article/003406.htm (last visited Sept. 11, 2007). Unlike amniocentesis, which cannot be reliably performed until the fifteenth week of pregnancy or later, CVS can be conducted between ten to twelve weeks into a pregnancy and test results are available in one to two weeks, which is a more rapid turnaround than is typically the case for amniocentesis. *Id.* This type of testing can reveal chromosomal anomalies such as Down syndrome and diseases such as Tay Sachs, but it cannot detect neural tube defects like spina bifida. *Id.* Tay-Sachs is a deadly and rare inherited disorder that is most common in Eastern European Ashkenazi Jews and for which there is no cure. Children with Tay-Sachs "appear to develop normally for the first few months of life. Then, as nerve cells become distended with fatty material, mental and physical abilities deteriorate. The child becomes blind, deaf, and unable to swallow. Muscles begin to atrophy and paralysis sets in. Even with the best of care, children with Tay-Sachs disease usually die by age 4." *Tay-Sachs Disease*, MEDLINE PLUS MEDICAL ENCYCLOPEDIA http://www.nlm.nih.gov/medlineplus/taysachsdisease.html. (last visited Sept. 11, 2007).

the chances that a future child will be born with a characteristic, including a disability, shared by her parent or parents.[14]

As technology provides greater opportunities for knowledge it also provides greater opportunities for manipulation and control. A woman no longer has to wait until her third or fourth month of pregnancy before amnio or CVS can be used to evaluate the health of her fetus. Now, in contrast to ultrasounds and other types of prenatal testing, PGD allows a future mother to decrease the odds of having a child with a disability or genetic disease by screening out embryos before she even becomes pregnant.[15] As two authors explain:

> PGD, whether by polar body or embryo biopsy, is actually a pre-pregnancy version of CVS and amniocentesis, the two procedures most widely used for genetically testing fetuses. CVS and amniocentesis are generally done after the ninth week post-fertilization, when the fetus is already established and developmentally advanced. PGD, as currently practiced, has the advantage that the embryo is never in the mother's oviduct or uterus prior to the diagnosis.[16]

PGD can only be used in conjunction with IVF,[17] and requires that a healthcare provider harvest eggs from the woman seeking to be the mother, from a chosen egg source,[18] or from a future surrogate and then fertilize those eggs with the sperm of the intended father or a selected sperm source.

PGD can reveal a variety of information and can be put to many uses. By extracting a single cell from a day old eight-cell embryo, a physician can determine whether the future child will be male or female,

---

[14] Nat'l Insts. of Health, Nat'l Human Genome Res. Inst., Reproductive Genetic Testing, http://www.genome.gov/10004766 (last visited Mar. 12, 2007) [hereinafter, Reproductive Genetic Testing].

[15] *Id.*

[16] Richard J. Tasca & Michael E. McClure, *The Emerging Technology and Application of Preimplantation Genetic Diagnosis*, 26 J.L. MED & ETHICS 7, 11 (1998).

[17] *Id.*

[18] Rather than using the commonplace terminology of egg donor, this Article opts to describe a woman who provides eggs but who does not plan to mother an ensuing child as an egg source. It does so because the vast majority of these women do not, in fact, donate their eggs but are well paid for the sale of those eggs to willing and eager buyers. The same is true of so-called sperm donors and this Article will refrain from using that term as well.

which is vital information when a genetic disease is sex linked.[19] PGD has also been successful when "applied to patients carrying chromosomal rearrangements, such as translocations, in which it has been proven to decrease the number of spontaneous abortions and prevent the birth of children affected with chromosome imbalances."[20] PGD may increase the rate of successful embryo implantations, decrease the risk of miscarriages, and eliminate genetic anomalies in the offspring of women of advanced maternal age.[21] The process can help prevent the gestation or birth of children who will have an extremely debilitating, life-ending illness like Tay-Sachs. [22] The procedure can help future mothers avoid implanting embryos that carry genes for other serious chronic illnesses like sickle cell anemia[23] and cystic fibrosis.[24] The technology may also be employed to screen out genetic markers for generally late-onset and potentially deadly illnesses such as breast cancer [25]or Huntington's disease.[26] In one of its more controversial uses, parents have employed PGD to create a child who is a tissue match for an existing ill child who is in need of a tissue donor.[27] PGD has also been controversial when employed for sex selection without a risk of an underlying sex-linked disease.[28]

---

[19] Reproductive Genetic Testing, *supra* note 14.

[20] *Id.*(one of the most common causes of early pregnancy loss is an imbalance in the number or arrangement of chromosomes in an embryo).

[21] *Id.*

[22] Tasca & McClure, *supra* note 16, at 7 ("Cystic fibrosis [], Tay-Sachs disease, Duhenne's muscular dystrophy [] Fragile X Syndrome, and Down syndrome [] are just a few of the many severe, and sometimes fatal, genetic disorders that can be diagnosed with [PGD].").

[23] Kangpu Xu et al., *First Unaffected Pregnancy Using Preimplantation Genetic Diagnosis for Sickle Cell Anemia*, 281 JAMA 1701, 1701-06 (1999).

[24] Tasca & McClure, *supra* note 16, at 7.

[25] Kenneth Offit et al., *Preimplantation Genetic Diagnosis for Cancer Syndromes A New Challenge for Preventive Medicine*, 296 JAMA 2727, 2727-30 (2006).

[26] Keron Sermon et al., *Preimplantation Genetic Diagnosis for Huntington's Disease with Exclusion Testing*, 10 EUR. J. HUM. GENET. 591, 591 (2002).

[27] PRESIDENT'S COUNCIL ON BIOETHICS, REPRODUCTION AND RESPONSIBILITY: THE REGULATION OF NEW BIOTECHNOLOGIES 90 (2004), *available at* http://www.bioethics.gov/reports/reproductionandresponsibility/_pcbe_final_reproduction_and_responsibility.pdf.

[28] *Id.*

According to the President's Council on Bioethics, "[A]t least one-third of individuals who use PGD are otherwise fertile, and this number may increase as the potential uses of PGD expand."[29] In other words, those who are otherwise capable of reproducing without medical assistance will utilize PGD for a variety of reasons, only some of which may involve avoiding disease or infirmity. As physicians gain knowledge and skill, it will become possible to screen not only for early-onset life-threatening illnesses, but also for illnesses that will manifest later in life, such as Alzheimer's, or illnesses that are chronic, but not necessarily life-threatening if treated, such as diabetes.[30] Future PGD consumers can refuse to implant embryos with markers for mental illness, stroke, Parkinson's disease, or glaucoma. The very distant future may involve the use of PGD to screen for height, future weight, and eye color or, in a truly fantastic or frightening twist, a sunny disposition.[31]

PGD represents just one of the technological tools available to those seeking pregnancy and parenthood in the modern world and, because of the cost and physical burden it requires, it is one of the lesser utilized technologies. Whether using PGD or some other technological advance, technology plays a substantial role in many if not most pregnancies in the United States. For some women, technology plays a crucial early role in whether they will ever become pregnant. A woman, and frequently her male partner if she has one, may undergo extensive fertility testing[32] to determine

---

[29] *Id.*

[30] *Id.*

[31] *Id.* Disorders or traits derived from "multiple genes, chromosomal abnormalities, or random mutations in a parent's genetic code" are much harder to detect and screen for though perhaps this will become less true in years to come. DEBORA L. SPAR, THE BABY BUSINESS 108 (2006). Dr, Jeff Steinberg, a physician at the Fertility Institutes with offices in Los Angeles and Manhattan, sparked controversy early in 2009 when he released a statement indicating that his practice would start offering would-be parents the choice to use PGD to select hair, eye, or even skin color of future babies. Gina Salamone, *Custom-made Babies Delivered*, N.Y. DAILY NEWS, March 5, 2008, at 3, *available at* http://www.nydailynews.com/news/2009/03/02/2009-03-02_custommade_babies_delivered_fertility_cl.html. The physician later retracted his statement after some public outcry. *Id.*

[32] The American Society of Reproductive Medicine (ASRM) says that a heterosexual couple unable to conceive pregnancy after a year of unprotected intercourse should seek fertility counseling or treatment. If the couple seeks medical intervention at this point, they will receive physical exams "to determine their general state of health and to evaluate physical disorders that may be causing infertility." The ASRM also suggests that the couple should be "interviewed about their sexual habits in order to determine whether intercourse is taking place properly for conception." Where greater testing is needed to

the origin of any fertility problems. She may take fertility drugs to increase her chances of conceiving or to allow her to create eggs that will be harvested for later use for IVF.[33]

Even a woman who achieves pregnancy without any technological assistance will almost certainly have a technological pregnancy. Healthcare providers routinely offer to all pregnant women a variety of prenatal tests such as ultrasounds, screening for gestational diabetes, Hepatitis B, HIV or syphilis, and blood type Rh factor.[34] If she has a history of miscarriage or fetal anomalies or if she will be thirty-five or older at the time of delivery, she may choose an amniocentesis, CVS, or some other type of screening or diagnostic testing to help predict the health of her fetus.[35]Women who give

---

determine a possible underlying physical cause for infertility, women will likely have "an analysis of body temperature and ovulation, x-ray of the fallopian tubes and uterus, and laparoscopy. For men, initial tests focus on semen analysis." ASRM, Frequently Asked Question About Infertility, http://www.asrm.org/Patients/faqs.html (last visited Sept. 10, 2007).

[33] According to the ASRM, "[m]ost infertility cases—eighty to ninety percent—are treated with conventional therapies, such as drug treatment or surgical repair of reproductive organs." IVF may be used where women "have blocked or absent fallopian tubes, or where men have low sperm counts. IVF entails surgical removal of eggs from a woman's ovaries, which are then placed in a Petri dish with sperm. Any fertilized eggs that emerge from this process can then be implanted in a woman's uterus for the purpose of attempting to achieve a pregnancy." *Id.*

[34] March of Dimes Pregnancy and Newborn Health Education Center, Your First Tests, http://www.marchofdimes.com/pnhec/159_519.asp (last visited Sept. 11, 2007); According to the National Institutes of Health's Medline Plus Encyclopedia, good prenatal care includes: "Frequent prenatal examinations to detect early problems, [r]outine ultrasounds to detect fetal abnormalities and problems [and] routine screening for: Sexually transmitted diseases[,] Rubella immunity[,] Blood type problems (Rh and ABO)[,] Diabetes[,] Genetic disorders—if a family history or the age of the mother presents a high risk [,] Blood pressure abnormalities[and] Urine protein." *Pregnancy Care*, MEDLINE PLUS MEDICAL ENCYCLOPEDIA, http://www.nlm.nih.gov/medlineplus/ency/article/007214.htm (last visited Sept. 10, 2007).

[35] American College of Obstetricians and Gynecologists, *ACOG Practice Bulletin Number 77: Fetal Chromosomal Abnormalities*, 109 OBSTETRICS & GYNECOLOGY 217, 217 (2007) ("Historically, maternal age 35 years or older at the time of delivery has been used to identify women at highest risk of having a child with Down syndrome, and these women have been offered genetic counseling and amniocentesis or chorionic villus sampling (CVS)."). Recently, the American College of Obstetricians and Gynecologists (ACOG) called for the more routine use of non-invasive screening tests to offer increased access to information about fetuses with Down syndrome. Press Release, ACOG, *New Recommendations for Down Syndrome Call for Screening of All Pregnant Women* (Jan. 2, 2007), *available at* http://www.acog.org/from_home/publications/press_releases/nr01-02-07-

birth in hospitals, as the vast majority of American women do,[36] will almost certainly be hooked up to a fetal heart monitor and many will avail themselves of an epidural to ease the pain of labor. A pregnant woman may agree to take drugs to induce or help to accelerate labor.[37] A startlingly large number of women in this country will have Caesarean sections rather than deliver vaginally.[38] Thus, from ultrasounds to blood tests to genetic testing, technology and its advances are intricately connected to what it means to be pregnant and give birth in America.

In large and small ways, then, technology has fundamentally transformed the experience of pregnancy, delivery, and motherhood for thousands of women. Communities of women no longer hold dominion over pregnancy as they once did.[39] Instead, the pregnant body has become medicalized[40] and with this medicalization of pregnancy comes significant

---

1.cfm (recommending that physicians offering non-invasive screening for Down syndrome to all pregnant women irrespective of age).

[36] Today, ninety-eight percent of North American and British women deliver their babies in hospitals. TINA CASSIDY, BIRTH 74 (2006).

[37] Physicians often use Oxytocin, sold under the brand name Pitocin, to help "start or strengthen labor and to reduce bleeding after delivery." *Oxytocin*, MEDLINE PLUS MEDICAL ENCYCLOPEDIA, http://www.nlm.nih.gov/medlineplus/druginfo/meds/a682685.html (last visited Feb. 14, 2008).

[38] Approximately thirty percent of all births in the United States are by Caesarean section (C-section). Atul Gawande, *How Childbirth Went Industrial*, THE NEW YORKER, Oct. 6, 2006, at 59. The high rate of C-sections in this country has been attributed to a number of factors including physician fears of malpractice suits if there is a negative outcome during a birth, more high-risk pregnancies as women delay childbearing or undergo fertility treatments, greater childbearing among women with chronic disease, like diabetes, and increasing rates of multiple births. Cassidy, *supra* note 36, at 118. Some also attribute any increase in the C-section rate to the "too posh to push" phenomenon which refers to women who elect C-sections to allow for more convenient scheduling of births and/or to avoid some of the possible complications of vaginal births like bladder or anal incontinence. *Id.* at 123-24.

[39] Cassidy, *supra* note 36, at 27-63 (describing the history of midwifery and the eventual shift from home births attended by midwives to hospital births attended by physicians). *See also* Adrian E. Feldhusen, *The History of Midwifery and Childbirth in America: A Time Line*, MIDWIFERY TODAY, 2000, http://www.midwiferytoday.com/articles/timeline.asp; JOAN ROTHSCHILD, THE DREAM OF THE PERFECT CHILD 94 (2005). ("By the end of World War II the profession of obstetrics was fully in control of pregnancy and birth, completing a process begun at the turn of the twentieth century.").

[40] In her book, MAKING PARENTS, Charis Thompson describes feminist critiques of the "excessive medicalization of reproduction in the West." These critics feared that "pregnancy and childbirth had become mechanized and pathologized by a patriarchal and

consequences for women, their partners and families, their healthcare providers, and, ultimately, the community.

A. The Use and Abuse of Prenatal Testing

Different interest groups offer varying rationales for extensive prenatal testing, but one indisputable purpose of such testing is to allow women to discover some potential fetal health problems and to act in accordance with that knowledge. What actions might be possible will change depending upon the fetal abnormality that the tests reveal and the stage of pregnancy when the particular test is available. Some women might choose abortion[41] and, in the small subset of cases where medical intervention is possible, some women might seek out fetal surgery to correct an anomaly.[42] For other women, the purpose of information gathering may

---

increasingly interventionist medical establishment" that usurped a more woman-centered and natural childbirthing process that more closely served the needs and interests of women. CHARIS THOMPSON, MAKING PARENTS 57 (2005) (internal citations omitted). *See also* ROTHSCHILD, *supra* note 39, at 94 ("Doctors had come to treat pregnancy and birth as pathological conditions to be medically 'managed.'").

[41] One clinic surveyed by Parens and Asch reported that of women who received a diagnosis of Down syndrome for a fetus, approximately sixty-two percent opted to end the pregnancy. Apparently, this rate of abortion is believed to be relatively low and reflects the clinic's practice of referring women with a diagnosis of a fetus with Down syndrome to a pediatric geneticist, a nurse clinician who specializes in the care of pediatric genetic patients, and to families and caregivers of people living with Down syndrome. Erik Parens & Adrienne Asch, *The Disability Rights Critique of Prenatal Genetic Testing: Reflections and Recommendations*, *in* PRENATAL TESTING AND DISABILITY RIGHTS *supra* note 4, at 3, 8. *See also* Patricia E. Bauer, *The Abortion Debate No One Wants to Have*, WASHINGTON POST, Oct. 18, 2005, at A25; Tasca & McClure, *supra* note 16, at 9 ("Figures for the worldwide prenatal screening of carriers of Tay-Sachs between 1969 and 1992 show that of 1,298 pregnancies monitored by CVS or amniocentesis, 201 affected fetuses were found and all 201 were electively aborted.") (citation omitted).

[42] The Center for Fetal Diagnosis and Treatment at the Children's Hospital of Philadelphia, a leader in fetal surgery, lists at least thirteen conditions that can be treated surgically prior to the birth of a fetus, including twin-to-twin transfusion syndrome, spina bifida, congenital heart disease, and congenital diaphragmatic hernia (CDH). Ctr. for Fetal Diagnosis & Treatment at the Children's Hosp. of Phila., Open Fetal Surgery and Fetal Care: Fetal Diagnosis and Treatment, http://www.chop.edu/consumer/jsp/division/service.jsp?id=27703 (last visited Oct. 11, 2007). While the list is impressive, the reality is that there is no fetal treatment and certainly no cure for the vast majority of ailments that can be identified through prenatal testing and the number of such surgeries continues to be low, reportedly as low as 600 such surgeries being performed in a given year. Mary Carmichael & Claudia Kalb, *Treating the Tiniest Patients*, NEWSWEEK, June 9, 2003, at 48 (describing the controversy surrounding fetal surgeries that create great risk for the pregnant woman and fetus, but that do not cure the disease); *see also* Maggie Jones, *A Miracle, and Yet*, N, Y.

simply be to provide peace of mind or to give them time to prepare for the experience of caring for a child who presents special parenting challenges.

The wide availability of choices for prenatal and pre-conception screening can be viewed as liberating and as enhancing the autonomy of women by allowing them to make decisions based on a greater amount of information. However, the use of technology has incited concerns and is not without its detractors. Those who have raised fears about technology include feminist scholars who rang early alarms about the future uses of reproductive technology and expanded access to prenatal testing.[43] Writing over twenty years ago, feminist commentators feared the abusive potential of reproductive technologies. They predicted a world in which women were prosecuted for declining prenatal testing or in which children born with disabilities sued their mothers for their refusal to submit to prenatal screening and treatment that might have improved their lives.[44] Disability activists and scholars have likewise raised, and continue to raise, alarms about how technology may be used to decrease the frequency of children born with disabilities and to perpetuate negative myths about the quality of life for people with disabilities and their families.[45]

Though many of the most disturbing scenarios envisioned early in the timeline of assisted reproductive technology failed to materialize, this is not to say that that there have not been continuing medical incursions into the womb and, with them, soft constraints placed upon women's choices. By soft constraints, this Article refers not to the handcuffs on choice represented by laws or policies forbidding certain abortion procedures or requiring specific prenatal tests. Rather, the term "soft constraints" refers to

---

TIMES MAGAZINE, July 15, 2001, at 38 (describing the medical and ethical dilemmas involved in fetal surgery for spina bifida). Further, while such surgeries are referred to as "fetal surgeries," surgical intervention during pregnancy inevitably requires performing procedures on the woman who carries the fetus. Thus, these surgeries and how they have been touted raise the specter of concerns about maternal/fetal conflicts, informed consent, and the use of women's bodies. Monica J. Casper, *Fetal Surgery Then and Now*, 28 CONSCIENCE 24, 24-27 (2007).

[43] *See generally* RITA ARDITTI ET AL., TEST-TUBE WOMEN (1984).

[44] Ruth Hubbard, *Personal Courage is Not Enough*, *in* TEST TUBE WOMEN, *supra* note 43, at 344.

[45] Parens & Asch, *supra* note 41, at 3, 6; *see also* Amy Harmon, *In New Tests for Fetal Defects, Agonizing Choices for Parents*, N.Y. TIMES, June 20, 2004, at 1 ("Activists for the rights of the disabled say that a kind of grass-roots eugenics is evolving that will ultimately lead to greater intolerance of disabilities and less money for cures and treatments.").

the subtle societal, social, or legal pressures that lead women to acquiesce to healthcare or testing which they would prefer to avoid.[46] This type of soft constraint can quietly but thoroughly impact and, at times, interfere with a woman's pregnancy or pre-pregnancy decision-making and therefore warrants substantial scrutiny.

For instance, in the context of widespread prenatal testing, serious concerns exist about the coercive circumstances in which women choose to have themselves or their fetuses tested for potential abnormalities. All prenatal tests, like other medical procedures, require a woman's informed consent. However, anecdotal evidence indicates that consent to these tests appears to be largely pro forma and frequently it is not effectively conveyed to the patient that she has the ability to refuse.[47] In an article describing research about state mandated offers of Alpha-Fetoprotein, or AFP, screening[48] for pregnant women receiving prenatal care in California,

---

[46] Professor Michele Goodwin describes pregnancy and motherhood discrimination as forms of "soft" but real discrimination "that create 'double binds' for women who believe they must choose between the pursuit of a career and early motherhood." Michele Goodwin, *Assisted Reproductive Technology and the Double Bind: The Illusory Choice of Motherhood*, 9 J. GENDER RACE & JUST. 1, 2 (2005). She is most concerned with young women torn between a desire for early motherhood and a desire for career advancement who are advised by others to delay mothering and who later need artificial means of creating pregnancies. Professor Goodwin explains that the term "soft" discrimination "exists without an actual act committed against a woman, the perception of discrimination is subjective, and therefore might be difficult to prove in traditional modes of adjudication." *Id.* In keeping with Professor Goodwin's work, this Article uses the term "soft constraints" to connote the type of constraint on choice that could not easily be attributable to legal rules and structures, but which nonetheless result from the culture of motherhood created and sustained in part by the law.

[47] Nancy Anne Press & Carole H. Browner, *Collective Silences, Collective Fictions*, *in* WOMEN & PRENATAL TESTING 201, 201-03 (Karen H. Rothenberg & Elizabeth J. Thomson, eds., 1994); *see also* Karen H. Rothenberg & Elizabeth J. Thomson, *Women and Prenatal Testing: An Introduction to the Issues*, *in* WOMEN AND PRENATAL TESTING, *supra*, at 1, 2 ("Many women feel obliged to accept testing; they do not perceive that they have a choice."); R. Alta Charo & Karen H. Rothenberg, *"The Good Mother": The Limits of Reproductive Accountability and Genetic Choice*, *in* WOMEN AND PRENATAL TESTING, *supra*, at 105, 107-08. ("To argue for such a moral or legal accountability requires that one view the decision to use or forego genetic testing as a voluntary and informed choice that is causally related to some subsequent harm. Those assumptions, however, are not well founded. . . . From the preconception stage forward, choice free of situational coercion may be an illusion.").

[48] AFP screening involves a blood test at some point between the fifteenth and twentieth weeks of pregnancy. The test can reveal potential anomalies such as Down Syndrome or open neural tube defects like spina bifida. The state of California recommends this testing for all pregnant women. Most insurance companies will pay for the testing because it is recommended by the state. UCSF Medical Ctr., Prenatal Diagnosis: Alpha-

Nancy Anne Press and Carole H. Browner report that some agencies understood the mandate to offer testing as being tantamount to a mandate to test. Some providers admitted that they make it difficult for women to refuse testing.[49] Press and Browner also reported that:

> Nearly all the information provided concerned the test procedure itself and what a woman had to do to obtain testing. Consent was thereby implicitly assumed unless a patient explicitly indicated that her wishes were to the contrary. Moreover, AFP screening was generally introduced in the part of the intake in which other blood work was scheduled. Since these other blood tests were presented as routine, but not voluntary, the effect was to routinize the AFP test as part of the HMO's standard prenatal care package.[50]

To the extent that a pregnant woman identifies routine prenatal testing as something to which she prefers not to be subjected, the context of such an offer would typically make clear that such a refusal is unexpected and worrisome in the sense that it implicates access to treatment concerning the life or health of her future child.[51] Similarly, women who opt to carry a fetus to term despite a diagnosis of a fetal disability might face condemnation for that choice.[52]

Describing her worries about the coercive environment in which women make decisions about prenatal testing, Abby Lippman writes:

> Feminists concerned with how prenatal testing technology creates a coercive lifestyle for women and how technology may be used to manipulate them are not 'fetalists' or fatalists. Recognizing the power imbalances between the providers and the users of testing,

---

Fetoprotein (AFP) Screening, http://www.ucsfhealth.org/childrens/medical_services/preg/prenatal/afp.html (last visited Oct. 10, 2007).

[49] Press & Browner, *supra* note 47, at 205.

[50] *Id.* at 206.

[51] In their anthology on prenatal testing and disability rights, Adrienne Asch and Erik Parens note that healthcare providers presume that most people who participate in prenatal genetic counseling will also consent to testing. Parens & Asch, *supra* note 41, at 11. The authors further note, "Often patients have been referred by physicians and do not understand that prenatal testing is an option that, in light of their values, beliefs, and needs, they may not want to use." *Id.*

[52] Saxton, *supra* note 4, at 147, 157.

> they are concerned about potential violence to women from the use of technology. They are seeking not to limit women's options but to ensure and expand them by exposing the structures that now constrain women's choices. To these critics—and I am among them—choice in prenatal testing means that it can be rejected by a woman without someone questioning her motives. It means that a woman could, if she wished, continue her pregnancy after a fetal diagnosis is made because we have guaranteed her help to support a child with a disability. And it means that personal actions are completely severed from public agendas so that a decrease in uptake rates from current levels might be seen to measure the effectiveness, not the failure, of prenatal screening.[53]

As technology expands the information available to pregnant women or women seeking pregnancy, it potentially constructs barriers to choice and establishes real or perceived limits on the range of decisions that a woman can make on her own behalf or on behalf of her future child. Joan Rothschild challenges the rhetoric of choice as used in the context of prenatal testing in the following way:

> But what does having choice mean? It means, to start with, deciding whether to be tested or not in the first place. It also means being pressured to do so if one hesitates. Choice means having virtually only one option to avoid a diagnosed defect: abortion. Choice means deciding, often on the basis of ambiguous information, whether to terminate or continue the pregnancy . . . . [Parental] decisions, although made individually, become cumulative, defining and ranking undesired—and by default desired—qualities of children to be born. As they participate in prenatal diagnosis, parents become complicit in inscribing the imperfect fetus and in designing which fetuses are acceptable and which are not.[54]

Extending Rothschild's claim, it is also the case that as individual women make decisions about prenatal diagnoses, those decisions have a cumulative impact on the expectations of motherhood and pre-motherhood. These decisions make women complicit in inscribing the perfect and

---

[53] Abby Lippman, *The Genetic Construction of Prenatal Testing: Choice, Consent, or Conformity?*, *in* WOMEN AND PRENATAL TESTING *supra* note 47, at 1, 29 (citations omitted).

[54] ROTHSCHILD, *supra* note 39, at 111-12.

imperfect mother because choices about testing, whether explicitly defined as such, are mothering choices. They are choices about what type of mother a woman imagines herself to be and what type of child she imagines mothering. These individual choices made in the privacy of physicians' offices are not completely isolated from the public sphere. They are discussed in chat rooms among strangers and on television shows geared toward women. They are the subjects of op-eds in major newspapers and magazines, legislative debates, and government reports. The end result is that private choices about prenatal or pre-conception testing are part of the public discussion about parenting and help to determine whether society will judge the choices women make, and consequently the women themselves, as perfect or imperfect.

For some, any woman who subjects herself and her fetus to testing for the purpose of deciding whether to terminate a pregnancy has shown herself to be wanting as a future mother and morally suspect. Others view information gathering and decision-making that is in the best interest of the mother, future child, and the family as responsible behaviors. It is at the point of evaluating the decisions a woman makes once she has information about a fetal anomaly that camps begin to form around the notions of good and bad choices. The obligations of pregnancy and pre-motherhood begin almost from the moment that a woman contemplates becoming pregnant and certainly long before she receives the news of a positive pregnancy test. The timeline for mothering responsibilities has lengthened and with it the interval for passing judgment on how an individual woman fulfills a duty to her growing fetus, her future child, and to the larger society.[55]

B. PGD vs. Prenatal Testing: Why Regulate One and Not the Other?

Before launching into a more specific discussion about regulation of PGD, it is useful to consider why a state could place limits on the use of PGD if it has not placed similar limitations on the use of prenatal tests that can lead to abortion or other decisions that are, arguably, to the detriment of a future child.

It is not immediately clear how PGD makes decisions about achieving a pregnancy demonstrably different from those that women have been making during pregnancy for decades. An ultrasound that reveals an anomaly in the twentieth week of pregnancy is not remarkably different from CVS testing that reveals the same anomaly during the twelfth week of a pregnancy. To the extent that the question is solely one of timing,

[55] Charo & Rothenberg, *supra* note 47, at 105.

advancing technology and the knowledge that it brings with it have done nothing to shift the moral and legal landscape about testing, though the question of what to do in the face of a fetal anomaly identified during pregnancy, especially later in the pregnancy, certainly has legal and moral implications. At its core, however, a woman who uses PGD to make decisions about the genetic traits of a potential fetus is no different from the same woman electing to use amniocentesis or CVS to determine whether she will carry a pregnancy to term. Using PGD is a logical progression from other methods of seeking to control birth outcomes such as pre-conception counseling, consulting psychics, or prayer.[56] There is a continuum, but preconception and prenatal decisions derive from a desire—and a constitutional right, according to some scholars—to control what was heretofore uncontrollable. [57]

In spite of the similar uses for PGD and prenatal testing and the similar outcomes they can engender, concrete differences between PGD and prenatal testing explain why the former might be more subject to regulation than the latter. First, requiring any form of prenatal testing necessitates an invasion of a woman's bodily integrity, which raises the stakes of such testing as both a practical matter and a matter of constitutional analysis.

---

[56] Some argue that as technology allows parents to make even more specific choices about their future children through the use of embryo selection or genetic manipulation, those decisions should also be protected. In the words of Professor Debora Spar:

> One can argue . . . that the market for PGD—even a market for asthma-free, curly-haired, taller-than-normal offspring—is simply a logical extension of the existing baby business. After all, thousands of clients are using lower-tech methods to pursue essentially similar outcomes. When parents purchase eggs, for example, they are clearly selecting along genetic lines. Why else pay extra for that attractive Ivy League donor? Sperm is also marketed by genes, as evidenced by information regarding the donor's height, weight, and favorite hobbies. Preimplantation genetic diagnosis, in that regard, is only another step forward, a higher tech means of achieving more accurate results. If parents will pay for smarter eggs and taller sperm, why not pay more to guarantee that the child who results from this high-potential pairing really does carry the optimal set of genes. In economic terms, perfected children make perfect sense.

SPAR, *supra* note 31, at 99.

[57] *See, e.g.*, Elizabeth Price Foley, *Human Cloning and the Right to Reproduce*, 65 ALB. L. REV. 625, 627-38 (arguing, in part, the position that the Constitution does recognize a right to use reproductive technology as part of a right to procreate). JOHN ROBERTSON, CHILDREN OF CHOICE: FREEDOM AND THE NEW REPRODUCTIVE TECHNOLOGIES (1994).

Denying access to such testing raises issues of the patient's autonomy and the sanctity of the relationship between healthcare provider and patient. Standing alone, these differences might explain why legislative bodies have not been eager to require prenatal tests or limit what choices a woman can make about her pregnancy in the wake of receiving the results of such testing. Second, prenatal testing has become an ingrained and routine element of prenatal care and is viewed by many—healthcare providers and pregnant woman included—as a required part of the process of having a baby.[58] A robust body of case law exists in which women have successfully sued physicians for wrongful birth when testing is not offered and a child is subsequently born impaired, which indicates[59] that voluntary prenatal testing plays a vital role in women's experience of pregnancy. The high frequency of physicians offering prenatal testing and women choosing to undergo tests may also contribute to the lack of impetus for legislators and regulators to require or limit testing, given that the issue is primarily seen as medical decision-making best left to be discussed by the involved parties. In light of these factors, it is not surprising that there are few attempts to actively regulate access to prenatal testing or control the aftermath of such testing.[60]

---

[58] *See, e.g.*, Nemours Foundation, Prenatal Tests, http://kidshealth.org/parent/system/medical/prenatal_tests.html (last visited Oct. 24, 2008) ("Certain prenatal tests are considered routine—that is, almost all pregnant women receiving prenatal care get them."); Mayo Clinic, Prenatal Testing: Should You Consider It?, http://www.mayoclinic.com/health/prenatal-testing/PR00014 (last visited Oct. 24, 2008) ("Prenatal screening tests—such as blood tests and ultrasounds—are routine in most pregnancies.").

[59] *See, e.g.*, Keel v. Banach, 624 So. 2d 1022 (Ala. 1993) (reversing grant of summary judgment in favor of physician in wrongful birth claim because law allowed parents to maintain such an action); Siemieniec v. Lutheran Gen. Hosp., 512 N.E.2d 691 (Ill. 1987) (allowing parents to maintain wrongful birth action against physicians and hospital after giving birth to a son with hemophilia); Procanik v. Cillo, 478 A.2d 755 (N.J. 1984) (allowing parents to recover for the wrongful birth of a child); Harbeson v. Parke-Davis, Inc., 656 P.2d 483 (Wash. 1983) (recognizing actions for wrongful birth and wrongful life in Washington).

[60] The disability community has frequently raised serious objections to the manner in which prenatal and now pre-implantation testing is used to screen out future children with disabilities. The community has called for greater education of future parents, healthcare providers, and genetic counselors about the lives of people with disabilities, as well as much wider availability of affordable services for people with disabilities and their families. *See, e.g.*, Saxton, *supra* note 4, at 148 ("We believe that the current promotion and application of prenatal screening has a potent message that negatively affects people with disabilities, influences women in decision-making about their own pregnancies, and reinforces the general public's stereotyped attitudes about people with disabilities.").

In contrast to prenatal testing, regulation of PGD allows legislative bodies to regulate in the interest of future children without coming into direct conflict with a woman's body, and to do so in a climate in which access to such technology is limited and therefore is less of a routine and expected part of a woman's experience of pregnancy. Further, because of financial issues and physical requirements, only a small, moneyed segment of the population has access to PGD and, as such, regulation of the practice might engender less broad uproar because of its perceived limited impact on the general population of pregnant women.[61]

Additionally, and perhaps most importantly, as public debate about other controversies in reproduction and reproductive technology continues to rage, PGD will inevitably be swept up in larger conversations about protecting the integrity of humanity or expanding our human future. Many states have banned human cloning for purposes of reproduction[62] and many of the arguments against human cloning hinge on moral and religious concerns about the manipulation of embryos and drastic changes to the nature of human reproduction.[63] During the George W. Bush presidency,

---

[61] This is not to say that there are no organized forces that might bristle at increased regulation of access to reproductive technology. RESOLVE: The National Infertility Association has the power to mobilize thousands in opposition to legislative action imposes substantial governmental control over private reproductive healthcare decisions. *See, e.g.*, RESOLVE: The National Infertility Association and Supporters Defeat Dangerous Georgia Bill (Apr. 9, 2009), http://www.resolve.org/site/PageServer?pagename=fmed_mccpr040809.

[62] Fifteen states have passed laws prohibiting or limiting cloning for the purpose of reproduction. Nat'l Conf. of State Legislatures, State Human Cloning Laws, http://www.ncsl.org/programs/health/Genetics/rt-shcl.htm (last visited July 29, 2008). These states include Arkansas, ARK. CODE ANN. §§ 20-16-1001-1004 (2008); California, CAL. BUS. AND PROF. CODE § 16004-5 (2008), CAL HEALTH AND SAFETY CODE § 24185, § 24187, § 24189, § 12115-7 (2008); and New Jersey, N.J. STAT. ANN. § 2C:11A-1, §26:2Z-2.

[63] Prominent bioethicist Leon R. Kass has declared human cloning to be an abomination and has emphatically rejected its morality. He has argued in part:

> [C]loning shows itself to be a major alteration, indeed, a major violation, of our given nature as embodied, gendered and engendering beings—and of the social relations built on this natural ground. Once this perspective is recognized, the ethical judgment on cloning can no longer be reduced to a matter of motives and intentions, rights and freedoms, benefits and harms, or even means and ends. It must be regarded primarily as a matter of meaning: Is cloning a fulfillment of human begetting and belonging? Or is cloning rather, as I contend, their pollution and perversion? To pollution and perversion, the fitting response can only be horror and revulsion; and conversely, generalized horror and revulsion are prima

the federal government has limited access to research funds for experiments involving embryonic stem cells in part because of a respect for embryonic life.[64] Agencies exist to help place frozen embryos left over from IVF patients in adoptive homes, as though these embryos are no different from the thousands of children in foster care in the United States.[65] Many activists with disabilities and disability community allies loudly decry the devaluation of the lives of people with disabilities supposedly inherent in decisions about screening out embryos with markers for disease or disability.[66] In this climate, PGD is a logical target because it so clearly implicates concerns for potential life, radical change in the level of control exercised over reproduction, and legitimate, though arguably misplaced, concerns about eugenics.

Despite the current lack of legislative and regulatory attention paid to PGD, as the procedure becomes more ubiquitous and bundled with more disquieting technology, such as human cloning, it is more likely that regulators will begin to evaluate what role the law can play in controlling who, if anyone, can access the technology and how it can be used.

> facie evidence of foulness and violation. The burden of moral argument must fall entirely on those who want to declare the widespread repugnance of humankind to be mere timidity or superstition.

Leon R. Kass, *The Wisdom of Repugnance*, THE NEW REPUBLIC, June 2, 1997, at 17.

[64] According to former President George W. Bush's press office, "Destroying human life in the hopes of saving human life is not ethical, and it is not the only option before us." Press Release, Off. of the Press Sec'y, Fact Sheet: Advancing Stem Cell Research While Respecting Moral Boundaries (June 20, 2007). Thus, the Bush Administration severely limited the availability of federal funding for human embryonic stem cell research that involves the destruction of human embryos.

[65] *See, e.g.*, Nightlight Christian Adoptions, Snowflakes Program, http://www.nightlight.org/snowflakeadoption.htm (last visited July 29, 2008).

[66] *See, e.g.*, Erik Parens & Adrienne Asch, *Disability Rights Critique of Prenatal Genetic Testing: Reflections and Recommendations*, 9 MENTAL RETARDATION & DEVELOPMENTAL DISABILITIES RES. REVS. 40, 42 (2003); Adrienne Asch, *Disability Equality and Prenatal Testing: Contradictory or Compatible?*, 30 FLA. ST. U. L. REV. 315, 332-34 (2003).

II. THE LAW AS IT IS: PRESENT REGULATION OF REPRODUCTIVE CHOICES AND PARENTING

> "There have always been mothers but motherhood was invented."[67]

We live in a time of a largely hands-off approach in the arena of reproductive technology with the government abdicating any profound regulatory role to the market.[68] This era will end as technology makes the fantastic attainable and as the alarms raised by bioethicists, conservative and liberal commentators, feminist philosophers, disability rights activists, and other interested parties ring louder. Eventually the clamor will be such that state legislatures and, perhaps, the federal government, will begin limiting the uses of reproductive technologies.[69] These future regulatory choices have striking potential to impact the lived experiences of individuals who by choice or by circumstance build their families with the use of reproductive technology. Such regulation, of course, can only be contemplated in an environment in which childbearing, child creation, and parenting are construed as both private and public acts, worthy of protection through law but also subject to control.

There are multiple existing legal paradigms from which future regulators of PGD might choose to or feel compelled to draw. These

---

[67] ANN DALLY, INVENTING MOTHERHOOD 17 (1982).

[68] Business school professor Debora Spar describes our existing regulatory regime as follows:

> In the United States . . . regulatory and legislative authorities have largely ignored the market for reproductive services. There are very few restrictions on fertility treatments and little regulation of providers. Instead, the market for fertility in the United States is vibrant, competitive, and expanding in the absence of any kind of formal controls. Because the United States is such a large and technically advanced market, moreover, it serves as a magnet for infertile couples around the world.

SPAR, *supra* note 31, at 5.

[69] For instance, in early 2009, as a fairly direct response to the birth of octuplets conceived by ART to Nadya Suleman, a single mother already raising six children conceived through IVF, the Georgia legislature considered passing a law on embryonic personhood that many worried would significantly impair the fertility and biomedical research industries in the state. Maureen Downey, *Embryo rights go too far in Senate bill*, ATLANTA-JOURNAL CONSTITUTION, Mar. 10, 2009, at 10A, *available at* http://www.ajc.com/services/content/printedition/2009/03/10/stemed0310.html.

include legal regulation of the medical profession and medical experimentation, regulation of procreation, including sterilization and abortion, and the regulation of parenting. This Article is primarily concerned with how the regulatory examples available in the latter two categories may have both a political and constitutional impact on how PGD is eventually controlled, limited, or protected. Obviously, when future parents make decisions about PGD they make procreative decisions in the sense that they are determining the circumstances under which they will create progeny. IVF patients use PGD to exercise an exacting level of control over a planned act of procreation thus making PGD a decision about the positive right to choose to procreate and the negative right to avoid procreating when it involves parameters with which the future parents are uncomfortable.[70]

PGD can also be construed as implicating parental decision-making because decisions about screening out particular embryos can be viewed, at least in some contexts, as medical decision-making on behalf of children. Arguably, strong comparisons can be made between a parent who decides to end life-sustaining treatment for a severely ill newborn and a parent who opts not to implant the embryo that will become that future severely ill newborn. This argument does not assume that the sick newborn and the genetically doomed embryo are morally or legally comparable. Rather, the focus is on the power of individuals as parents and future parents to make medical decisions on behalf of existing and future offspring. In one scenario, the parental choice can end the existence of sick progeny. In the other, the parent avoids the creation of that progeny.

Working together, the paradigms of procreation and parenting create a framework for the regulation of PGD and suggest limits on how legal regulation of the practice might be constructed and interpreted.

A. Burdened Mothers

This Article deliberately focuses on women and motherhood because of the gendered reality of the institution of parenthood in this country. That reality includes the fact that for women mothering brings substantially more burdens than does fathering for men. Though it is true that social norms about fatherhood and fathers' duties have become charged territory in the wake of movements to encourage more paternal engagement in parenting, it still holds true that masculinity and fatherhood are less

[70] JOHN ROBERTSON, *supra* note 57, at 25-40.

intertwined and less publicly scrutinized and controlled than womanhood and motherhood.[71]

Society subjects mothers to categories of good and bad, and these categories are frequently based on attributes as much as or more than actions. As Molly Ladd-Taylor and Lauri Umanksy explain in the introduction to their anthology, "BAD MOTHERS": "[T]he 'bad' mother label does not necessarily denote practices that actually harm children. In fact, it serves to shift our attention away from a specific act to a whole person—and even to entire categories of people."[72] These authors note that three broad groups of women have been relegated to the realm of bad motherhood over the past century. These women were those who by choice or circumstance "did not live in a 'traditional' nuclear family; those who would not or could not protect their children from harm; and those whose children went wrong."[73] Good mother status has never been easy to attain and its parameters regularly shift, as do the cultures from which the myths of good mothering derive.[74] And, as is true with most myths, "the current Western version is so pervasive that, like air, it is unnoticeable. Yet it influences our domestic arrangements, what we think is best for our children, how we want them to be raised, and whom we hold accountable. Because we are inevitably caught up in our own cultural vortex, we fail to question our most basic suppositions."[75]

The law and legal system have done their part to perpetuate the split between good and bad mothers. All bodies are not welcome pregnant bodies and all mothers are not welcome mothers. Bad mother status seems to be far too easy for women to attain and for our legal system to identify. Family courts overflow with women of color and their children in numbers far disproportionate to their representation in the general population.[76] State

---

[71] Patricia King explains, "Although men are biological parents and are responsible for the care of children, the parenting role is not culturally understood to be a defining one for them." Patricia A. King, *Ethics and Reproductive Genetic Testing: The Need to Understand the Parent-Child Relationship*, *in* WOMEN AND PRENATAL TESTING *supra* note 47, at 98, 100.

[72] MOLLY LADD-TAYLOR & LAURI UMANSKY, "BAD" MOTHERS 3 (1998).

[73] *Id.*

[74] SHARI L. THURER, THE MYTHS OF MOTHERHOOD xv (1994).

[75] *Id.*

[76] *See generally* DOROTHY ROBERTS, SHATTERED BONDS: THE COLOR OF CHILD WELFARE (2003).

actors enforce foster care, adoption, and custody laws so as to question the legitimacy of mothering by lesbians and single women.[77] Women with disabilities have struggled to garner wide societal respect for their choice to achieve pregnancy and become mothers.[78] Many scholars have written of the devaluation of Black motherhood.[79] Sterilization abuse of Black women and Latinas reminds us that the dominant society does not welcome every mother into the realm of motherhood.[80]

Women who are current or recovering drug users also frequently face public condemnation of their choice to mother or the choices that they make as mothers. Women are demonized for having babies when they do not have adequate financial resources to care for those children. Women are criticized for giving birth out of wedlock and for having babies without a male partner. Women are accused of having babies to reap financial rewards from government assistance programs or to achieve legal immigration status in the United States. A wide range of behaviors and choices subject women to categorization as bad mothers sometimes even before they have had a child. Merely achieving pregnancy can be viewed as an act of irresponsibility for which women are shamed and for which the label of bad mother is deemed appropriate. As Joan Rothschild explains:

> Naming is a formidable power. To label someone or some group deviant and make the label stick is to have power to set and enforce societal standards. It is the power to stigmatize not only asocial behavior but also those engaged in it. In extreme form, deviance labeling turns to scapegoating, the deviant becoming the

---

[77] *See, e.g.*, Bottoms v. Bottoms, 249 Va. 410, 420 (1995) (upholding transfer of custody from lesbian mother to maternal grandmother in part because "living daily under conditions stemming from active lesbianism practiced in the home may impose a burden upon a child by reason of the 'social condemnation' attached to such an arrangement, which will inevitably afflict the child's relationships with its 'peers and with the community at large.'").

[78] Anne Finger, *Claiming All of Our Bodies*, *in* TEST TUBE WOMEN, *supra* note 43, at 281, 283-86 (discussing the eugenics movement and its support for coerced or non-consented sterilizations of people with disabilities).

[79] *See, e.g.*, DOROTHY ROBERTS, KILLING THE BLACK BODY: RACE, REPRODUCTION AND THE MEANING OF LIBERTY (1997).

[80] Stephen Trombley, *Exporting Sterilization*, *in* THE RIGHT TO REPRODUCE: A HISTORY OF COERCIVE STERILIZATION 214 (1988); Elena R. Gutierrez, *Policing "Pregnant Pilgrims": Situating the Sterilization Abuse of Mexican-Origin Women in Los Angeles County*, *in* WOMEN, HEALTH, AND NATION: CANADA AND THE UNITED STATES SINCE 1945 380 (Georgina Feldberg et al., eds., 2004).

> despised Other, a lesser brand of human who confirms what one is not.[81]

Even before a woman becomes a mother she is subject to legal regulation of her pregnancy during which the law's regulation of parenting firmly rests on the pre-mother It is pregnant women, not their male partners if they have them, who have been prosecuted in criminal court or subject to adverse rulings in family court for drug use during pregnancy.[82] It is pregnant women who have been threatened with and forced to endure Caesarean sections without their consent when it is deemed by courts and medical professionals to be in the best interest of an unborn child.[83] It is pregnant women who have been subjected to unconsented blood transfusions to protect their unborn babies.[84] It is women of reproductive age who have been threatened with the loss of their jobs when working in environments that pose a risk to a potential fetus.[85] When state actors subject a woman to criminal sanction for behavior during pregnancy that purportedly places a fetus at risk, the law makes clear that pregnant bodies, women's bodies, are appropriate sites for government control and sanction.

---

[81] ROTHSCHILD, *supra* note 39, at 38.

[82] *See, e.g.*, *State v. McKnight*, 576 S.E.2d 168, 179 (S.C. 2003) (woman convicted of homicide by child abuse for the still birth of her daughter who tested positive for cocaine byproduct during an autopsy), *rev'd*, 661 S.E.2d 354 (S.C. 2008) (post conviction relief granted on basis of ineffective assistance of counsel); *In re* Blackshear, No. JU-103261, 1999 Ohio App. LEXIS 4274 (Sept. 7, 1999), *aff'd* 90 Ohio St. 3d 197 (2000); *Whitner v. State*, 492 S.E. 777, 778 (S.C. 1997) (woman sentenced to 8-years in prison for "causing her baby to be born with cocaine metabolites in its system by reason of [her] ingestion of crack cocaine during the third trimester of her pregnancy"); *In re* Ruiz, 27 Ohio Misc. 2d 31 (Ct. Com. Pl., Juv. Ct. 1986); Cynthia Dailard & Elizabeth Nash, *State Responses to Substance Abuse Among Pregnant Women*, The Guttmacher Rep. on Pub. Pol'y (Dec. 2000), *available at* http://www.guttmacher.org/pubs/tgr/03/6/gr030603.pdf (describing civil and criminal responses to illegal drug use by pregnant women); Adam Nossiter, *Rural Alabama County Cracks Down on Pregnant Drug Users*, N.Y. TIMES, March 15, 2008, at A10 (describing prosecutions over an eighteen-month period of at least eight pregnant women who used illegal drugs), *available at* http://www.nytimes.com/2008/03/15/us/15mothers.html.

[83] Janet Gallagher, *Collective Bad Faith: "Protecting" the Fetus*, *in* REPRODUCTION, ETHICS AND THE LAW: FEMINIST PERSPECTIVES 343, 343-44 (J. C. Callahan, ed., 1995) [hereinafter Gallagher, *Collective Bad Faith*]; *See also* Janet Gallagher, *Prenatal Invasions and Interventions*, 10 HARV. WOMEN'S L.J. 9, 9-10 (1987).

[84] *See, e.g.*, *In re* Jamaica Hosp., 128 Misc. 2d 1006 (N.Y. Sup. Ct. 1985); Raleigh Fitkin-Paul Morgan Memorial Hosp. v. Anderson, 201 A.2d 537 (N.J. Sup. Ct. 1964).

[85] Int'l Union v. Johnson Controls, 499 U.S. 187 (1990).

The state's assertion of interests in children and future children frequently reserves its most stringent and harshest scrutiny and mechanisms of control for women's bodies. Unquestionably, there are viable societal interests in the individual and private experience of carrying a pregnancy to term because pregnancy has historically been a form of societal property and because the state has been authorized to take actions in the name of child protection. These interests have a moral and ethical dimension that the state can legitimately enforce through overt and indirect mechanisms of persuasion, coercion, and control. Over time and distance, "[W]omen's reproductive decisions have consistently been viewed as being made for the benefit of others, whether their husbands, their families, or the state."[86] In such a world, women can be pressured and, in the extreme case, forced into using technology as a means to meet their parental obligations to existing children, a fetus, or even a child not yet conceived.

As our society attempts to manage the reproductive choices offered by technology, it behooves us to interrogate the ways in which these technologies oblige us to think differently about parenting and parents. Although the ramifications of increased access to and utilization of reproductive technology are undoubtedly many, this Article is most concerned with the troubling ways in which the obligations and expectations of parenting are gendered, and frequently raced and classed. Mothers and mothers-to-be, only partly as a consequence of biology, shoulder a much heavier burden when it comes to being a good prospective parent during pregnancy and good actual parent once a child is born. This uneven burden has been the subject of much scholarly literature and it is unnecessary to repeat all of those well-reasoned, if not always widely accepted, arguments here. Specifically, this Article is concerned with the manner in which technology enhances the burdens of motherhood for all women and how those shifting burdens make motherhood, especially good motherhood, terrain that is even more fraught socially and eventually legally than it has been in the past.

Given that pregnancy and motherhood engender a level of societal intrusion not experienced by men, the gendered consequences of PGD regulation should not be ignored. During pregnancy and perhaps before pregnancy, the question of who has the primary burden and benefit of making these reproductive decisions and, therefore, whose reproductive freedom would be most impacted by regulation, is murky. A law mandating testing during pregnancy or limiting the choices that a woman could make about terminating a pregnancy is a law aimed at and with a primary impact

[86] Charo & Rothenberg, *supra* note 47, at 126.

on women but, evenprior to pregnancy, there are ways in which PGD regulation would disproportionately burden women.

When a healthcare provider or lab technician creates embryos for IVF, necessary for PGD, the physical burden attendant to harvesting eggs is substantially greater for the egg source than for the sperm source.[87] Further, in most cases, it is the intended mother who bears the physical burdens of pregnancy.[88] Just as a pregnant woman, and not her male partner, must provide or refuse consent for any prenatal testing, in the context of reproductive health services, including PGD, it is often the woman who is the patient and therefore the person who must make final decisions about attempts to achieve pregnancy. Ultimately, the woman who will carry a child must consent to embryo transfer and it is she who could veto a transfer if she is unwilling or uncomfortable with carrying a certain embryo.[89] Under this set of facts, the consenting woman bears a heavier burden of decision-making than does her male counterpart when evaluating what embryos will be transferred to her uterus in an IVF cycle. Finally, and perhaps most importantly, it is the woman who is frequently the primary caregiver once a child is born.

It is true, then, that the regulation of PGD has a particular set of gendered consequences. Barbara Katz Rothman explains:

---

[87] ELIZA MUNDY, EVERYTHING CONCEIVABLE (2007).

[88] Surrogacy arrangements allow some women to avoid pregnancy while still maintaining a genetic tie to the future child. *See., e.g.*, Alex Kuczynski, *Her Body, My Body*, N.Y. TIMES, Nov. 30, 2008, at MM42 (describing the author's experience with a gestational surrogate who carried to term an embryo that was the product of the author's egg and her husband's sperm).

[89] The various configurations attendant to family formation in the modern world inevitably create scenarios in which power shifts to different parties. For instance, it is possible to imagine circumstances in which a woman would not be the final arbiter of which embryos she would carry. This circumstance would exist when a woman opts to act as a surrogate mother for a child that she will carry, but not parent. In such a case, the intended parent or parents would appear to have the final say in which embryos would be implanted with the hope of creating a successful pregnancy and eventual child. But, even in this case, a healthcare provider would need the future pregnant woman's consent to go forward with implantation and even a surrogate could not be forced to proceed with an implantation where she had concerns about the number or quality of embryos that the intended parent or parents wished to implant. A man might also wield veto power over an implantation where he acted as a known sperm source but withdraws his consent to implantation before the embryos are transferred. *See, e.g.*, Davis v. Davis, 842 S.W.2d 588, 597 (Tenn. 1992) (holding that in the absence of an agreement, the party wishing to avoid procreation should generally prevail in an embryo dispute, assuming that the other party has a reasonable possibility of achieving parenthood through other means).

> Increased knowledge, without increased responsibility on the part of the society, translates to increased knowledge with the inevitable burden of responsibility on mothers. We are asking mothers to become the gatekeepers of life. We are individualizing social problems of disease and disability, medicalizing life itself, and doing it through the bellies of pregnant women.[90]

Using law as a tool to reinforce categories of good and bad motherhood adds an extra layer of consideration to the choices that a woman makes about becoming pregnant. Thus, in both the pre-conception and prenatal periods, women are thinking about how to avoid being labeled a bad mother and the consequences of such a label. Further, they are making choices within an environment riddled with constraints. Again, in the words of Barbara Katz Rothman:

> Women are asked to "choose" whether to bring a child with certain genetic predispositions into the world, but they are not given choices about the environment in which that child would live. When a woman 'chooses' aborting rather than bringing to birth a child with a particular condition or predisposition, she is doing so in a world that sets the parameters of that child's life just as surely as genes do. Abortion can be the right choice, the moral choice, the only choice, but it, like birthing the child, is always a choice in a context.[91]

Thus, before pregnancy, during pregnancy, and after a child is born, women bear special burdens of procreation and its consequences. Women must make significant sacrifices and make both real and imagined "choices" about the circumstances under which they will become mothers and shoulder responsibility for the consequences those choices will have on themselves, their families, their children, and their communities. In light of this weighty responsibility, it only makes sense to give special consideration to the procreative consequences women will bear as PGD becomes subject to state sanction and manipulation.

Given the realities discussed in the previous paragraphs, the discussion that follows in subsequent sections will contend with the gendered inequalities of state regulation of parenting, pregnancy, conception, and preconception.

---

[90] Barbara Katz Rothman, *The Tentative Pregnancy: Then and Now*, *in* WOMEN AND PRENATAL TESTING, *supra* note 47, at 260, 267.

[91] *Id.*

B. Regulating Parenting

The law is no stranger to parents and parenthood as the state protects, regulates, and controls parenting and access to parenthood. The right to the custody of and decision-making authority for a child upon birth[92] is one of the few fundamental rights protected by the Constitution. Legal parenthood brings with it significant rights and responsibilities from the moment a child is born. Parents are obligated to keep their children clothed and fed; to provide them with financial support; to protect their health; and to ensure that they receive a minimal education.[93] When this relationship is disrupted, the law may create schedules for visitation, delineate the circumstances under which such visitation takes place, and require the payment of child support.[94] Post-birth, parents share most, if not all, of the legal obligations of parenthood, and gender does not officially dictate the contours of those responsibilities.[95] When parents violate the minimum standards of parenting set by the law, they are subject to censure and can, at the farthest end of the spectrum, permanently lose their parental rights.[96] Parenting is a right that can be denied and withdrawn.

---

[92] Troxel v. Granville, 530 U.S. 57, 65 (2000); Prince v. Massachusetts, 321 U.S. 158, 166 (1944); Meyer v. Nebraska, 262 U.S. 390, 399 (1923).

[93] Every state has statutes that provide definitions of abuse or neglect of a child. Child Welfare Information Gateway, *Definitions of Child Abuse and Neglect* (2007), http://www.childwelfare.gov/systemwide/laws_policies/statutes/define.cfm. Parental custody of a child may be disrupted where a child is abandoned, suffers physical abuse or sexual abuse, where a parent is an illegal, when a child is neglected by the deprivation of "adequate food, clothing, shelter, medical care, or supervision" or, in some states, through a failure to educate the child. *Id.*

[94] *See, e.g.*, N.J. STAT. ANN. § 9:2-4 (West 2007) (discussing custody arrangements for children after parental separation); ARIZ. REV. STAT. ANN. § 25-501 (2007) (creating a statutory duty of parental support for a minor child).

[95] Of course, the tyranny of social expectations means that seemingly neutral laws do not necessarily translate into even parenting responsibilities for men and women. It has long been documented that women bear a disproportionate burden of parenting responsibilities than is true for most fathers. Arlie Hochschild, THE SECOND SHIFT: WORKING PARENTS AND THE REVOLUTION AT HOME (1989); Diane Ehrensaft, PARENTING TOGETHER (1990); Theodore N. Greenstein, *Economic Dependence, Gender, and the Division of Labor in the Home: A Replication and Extension*, 62 J. MARRIAGE & FAM.,322, 322-24 (May, 2000).

[96] *See, e.g.*, N.J. STAT. ANN. § 9:2-18 (West 2007) (allowing for the termination of parental rights); CAL. FAM. CODE § 7828 (West 1992) (describing circumstances under which a proceeding to terminate parental rights may be brought).

C. Regulating Procreation Pre and Post-Conception

States play a critical role in protecting and, in extreme cases, limiting a person's access to parenting by regulating procreation. This is done via statutes that affect procreative behavior including those that focus on access to contraceptives and reproductive health services, like abortion, as well as statutes dealing with sterilization. Since *Buck v. Bell*, the Supreme Court has sought to set the parameters of a constitutional right to procreate. In *Buck*, the Court found no constitutional violation in Virginia's procedures for the non-consensual sterilization of "imbeciles."[97] Fifteen years later, in *Skinner v. Oklahoma*, the Court declined to explicitly overrule *Buck*, but did articulate the fundamental right to procreate and made clear that attempts to deprive individuals of such a right would be subject to an exacting level of constitutional scrutiny.[98] Thus, while there are circumstances in which the state can sanction involuntary permanent or temporary sterilization, these circumstances are sparse.[99] Many states have statutes or case law that allow caretakers to consent to permanent

---

[97] Buck v. Bell, 274 U.S. 200 (1927) (statutory hearing procedure for sterilization of young women in mental institution conformed to the requirements of due process).

[98] Skinner v. Oklahoma, 316 U.S. 535, 541 (1942). The *Skinner* Court wrote in relevant part:

> Marriage and procreation are fundamental to the very existence and survival of the race. The power to sterilize, if exercised, may have subtle, far-reaching and devastating effects. In evil or reckless hands it can cause races or types which are inimical to the dominant group to wither and disappear. There is no redemption for the individual whom the law touches. Any experiment which the State conducts is to his irreparable injury. He is forever deprived of a basic liberty. We mention these matters not to reexamine the scope of the police power of the States. We advert to them merely in emphasis of our view that strict scrutiny of the classification which a State makes in a sterilization law is essential, lest unwittingly, or otherwise, invidious discriminations are made against groups or types of individuals in violation of the constitutional guaranty of just and equal laws.

Id.

[99] *See, e.g.*, Wyatt v. Aderholt, 368 F. Supp. 1383, 1385 (M.D. Ala. 1974) (creating standards for involuntary sterilizations of institutionalized people with developmental disabilities); Ruby v. Massey, 452 F. Supp. 361 (D. Conn. 1978) (allowing parents of disabled daughters to employ procedure for unconsented sterilization of institutionalized wards); *In re* Sallmaier, 85 Misc. 2d 295 (N.Y. Sup. Ct. 1976) (allowing mother to consent to sterilization for severely developmentally disabled daughter).

sterilization or permanent birth control on behalf of wards with developmental disabilities[100] and some courts have sought to impose long-term birth control or sterilization on criminal defendants convicted of child abuse, other crimes against children, or failure to pay child support.[101] Therefore, although procreation is a protected right, it is not inviolable.

Sterilization regulation demonstrates that procreative decision-making begins prior to conception and that regulation of pre-conception decision-making has not proceeded along a clear or logical trajectory. As the law collapses categories of existence into each other, the consequences of conflating pre-pregnant women with those who are already pregnant or already mothers must be examined.

One difficulty in regulating pre-conception decision-making is in deciding when conception occurs. In the debate over emergency contraception, such as Plan B,[102] social conservatives argue that because the pills may work not only by preventing ovulation or fertilization, but also by making it less likely that a fertilized egg will implant in the uterus, emergency contraception is in fact an abortion procedure and should be understood and regulated as such.[103] The controversy led to significant delay of FDA approval for over the counter sales of the drug, and once the FDA acted to allow non-prescription access, age-based restrictions applied.[104] The difficulty surrounding FDA approval of Plan B highlights

---

[100] *See, e.g., In re* Valerie N., 707 P.2d 760 (Cal. 1985) (declaring that the developmentally disabled have a right to avoid procreation which may require that a guardian be able to consent to sterilization on their behalf).

[101] *See, e.g.*, Smith v. Superior Court, 725 P.2d 1101 (Ariz. 1986) (rejecting lower court ruling that would have allowed parents convicted of criminal child abuse to reduce their sentence by agreeing to voluntary sterilization at their own expense).

[102] *See* Plan B, What Is Plan B?, http://www.go2planb.com/index.aspx (last visited Oct. 24, 2008).

[103] Rob Stein, *FDA Approves Plan B Over-the-Counter Sale*, WASHINGTON POST, Aug. 25, 2006, at A04 ("Opponents also liken taking the pills to abortion, because they can sometimes prevent a fertilized egg from implanting in the womb.").

[104] One reporter explained the winding road to over-the-counter approval for Plan B as follows:

> The FDA's move reverses a decision it made three years ago prohibiting over-the-counter sales of the drug. That decision, which rejected the advice of the agency's outside advisers and internal reviewers, triggered intense criticism that the administration was letting political ideology influence scientific decisions, undermining the credibility and independence of an agency charged with protecting the nation's health.

just one way in which acts of procreation can incite passions and invite regulatory control.

Lawmakers have also attempted to regulate the products of conception through statutes pertaining to human embryos. Courts have rejected some legislative attempts to regulate various types of supposed embryo experimentation.[105] States like California have a very developed body of statutes dealing with a range of pre-conception decisions including determinations of embryo disposition[106] as well as rules for contending with post-birth quandaries about parentage and custody.[107] California penal law protects individuals from the unauthorized use of their gametes.[108]

States also express their reverence for embryos through their conflation of embryos, fetuses, and children, within their penal laws. Idaho includes embryos in its murder statute.[109] In Indiana, it is illegal to sell a

---

Id.

[105] *See, e.g.*, Forbes v. Woods, 71 F. Supp. 2d 1015 (D. Ariz. 1999), *aff'd sub nom.* Forbes v. Napolitano, 236 F.3d 1009 (9th Cir. 2000) (voiding for vagueness an Arizona statue that sought to criminalize experimentation on "any human fetus or embryo, living or dead, or any parts, organs or fluids of any such fetus or embryo resulting from an induced abortion").

[106] *See, e.g.*, CAL. HEALTH & SAFETY CODE § 125315 (West 2007) (delineating informed consent requirements for embryo disposition for patients participating in fertility treatments); *see also* COLO. REV. STAT. § 19-4-106 (2007) (describing the standards for determining parentage and embryo disposition in the context of assisted reproduction); CONN. GEN. STAT. §§ 19a-32d (2007) (banning human cloning and describing the options that must be made available to an individual who has created embryos through the use of assisted reproduction); MASS. GEN. LAWS. ch. 111L, § 4 (2007) (discussing informed consent requirements for patients participating in in vitro fertilization).

[107] *See also* DEL. CODE ANN. tit. 13, § 8-706 (2007) (discussing parentage and consent issues involving partners after the dissolution of a relationship or when one partner has withdrawn consent to the use of shared embryos); DEL. CODE ANN. tit. 13, § 8-707 (2007) (discussing parentage of embryos used to create a child after one partner has died); FLA. STAT. § 742.17 (2007) (describing procedures for disposition of pre-embryos in the event of death or divorce).

[108] CAL. PENAL CODE § 367g (West 2007); *see also* LA. REV. STAT. ANN. § 14:101.2 (2008) (forbidding the knowing unauthorized uses of a person's gametes).

[109] IDAHO CODE ANN. § 18-4001 (2007) ("Murder is the unlawful killing of a human being including, but not limited to, a human embryo or fetus."); *see also* MICH. COMP. LAWS § 600.2922a (2008) (providing liability for damages where a person commits a wrongful or negligent act against a pregnant individual and that "act results in a miscarriage or stillbirth by that individual, or physical injury to or the death of the embryo or fetus").

human ovum, zygote, embryo, or fetus.[110] Louisiana defines a live birth as one in which "there is the complete expulsion or extraction from its mother of a human embryo or fetus, irrespective of the duration of pregnancy, which after such separation, breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or movement of the voluntary muscles."[111] Given its gestational age, an embryo could never display the signs of life contemplated by the statute. For some purposes, Massachusetts describes an unborn child as "[T]he individual human life in existence and developing from implantation of the embryo in the uterus until birth."[112] In 2008, Colorado voters were asked to amend their state constitution to provide legal status to fertilized human eggs.[113]

A stunning declaration of embryo rights comes from the Louisiana legislature, which declares embryos to be juridical people, allows courts to appoint guardians to ensure their proper treatment, allows them to sue and be sued,[114] and recognizes embryos as separate entities from the facilities in which they are housed.[115] The state forbids the intentional destruction of embryos[116] and has created a procedure for embryo adoption in cases where an embryo's parents are unwilling to go through with implantation. [117] The standard for resolving disputes involving embryos is the best interests of the fertilized ovum.[118]

---

[110] IND. CODE ANN. § 35-46-5-3 (West 2007); *see also* FLA. STAT. § 873.05 (2007) (prohibiting the advertising or sale of human embryos); LA. REV. STAT. ANN. § 9:122 (2008) (forbidding the sale of human ovum, fertilized human ovum, or human embryos).

[111] LA. REV. STAT. ANN. 40:48 (2008).

[112] MASS. GEN. LAWS ch. 112, § 12K (2008).

[113] Kirk Johnson, *Proposed Colorado Measure on Rights for Human Eggs*, N.Y. TIMES, Nov. 18, 2007, at 23 (describing proposed constitutional amendment which would extend "inalienable rights, due process rights and equality of justice rights as defined in the state constitution to 'any human being from the moment of fertilization'"). On November 4, 2008, Colorado voters rejected the measure. Tiffany Sharples, *Ballot Initiatives: No to Gay Marriage, Anti-Abortion Measures*, TIME, Nov. 5, 2008, *available at* http://www.time.com/time/politics/article/0,8599,1856820,00.html.

[114] LA. REV. STAT. ANN. § 9:123 (2008).

[115] LA. REV. STAT. ANN. § 9:125 (2008).

[116] LA. REV. STAT. ANN. § 9:129 (2008).

[117] LA. REV. STAT. ANN. § 9:130 (2008).

[118] LA. REV. STAT. ANN. § 9:131 (2008).

The Louisiana statutory scheme described above and the failed Colorado amendment provide perspectives on the ways in which ideas about the moral status of embryos, combined with ideas about the limits and obligations of legal parentage, will likely shape future regulation of PGD. As the country debates the morality and usefulness of embryonic stem cell research, continues to fight battles about legalized abortion, and tries to reconcile parental responsibilities to children, fetuses, embryos, and gametes, the period before an embryo is implanted becomes increasingly fraught. The law can and will be utilized to treat infertility patients as parents even prior to pregnancy, fertility doctors as pediatricians, and embryos and fertilized eggs as children.

D. Regulating Pregnancy

By contrast to the limitations placed on forced sterilization or birth control, there are many examples of state incursions into the decision-making of pregnant women—a marker of the complications that pregnant bodies create for the law. Although sterilization strips a person of a right to procreate, a woman who is gestating a fetus has entered a distinctively contentious legal state because unlike other bodies, pregnant bodies are uniquely precious and public. The regulation of pregnant bodies differs from the regulation of other bodies and of parenting. Unavoidably, the regulation of pregnancy and its attendant reproductive decisions is more complicated than the regulation of parenting because it requires the state to consider both the rights and interests of a live person and whatever rights and interests may accrue to potential life; sometimes, of course, these interests appear to conflict. This complicated balancing has become even more tangled as pregnancy shifts further into the world of science and medicine as described in Part I, thus providing increasing opportunities for legal intervention into the choices made by pregnant women and their healthcare providers. Society's comfort with governmental exercise of control over the choices of pregnant women is a critical precursor to understanding how and why PGD regulation seems inevitable. It is perhaps useful, then, to briefly consider how society has come to see both subtle and overt regulations of pregnancy as necessary and constitutionally protected.

In many ways, pregnancies have always been a public affair because it is through women's successful pregnancies that a society sustains and perpetuates itself. Therefore, there is deep public interest in some women becoming pregnant and successfully carrying those pregnancies to term and the public has legitimate interests in pregnancy outcomes because children represent the future and society benefits when those children are healthy, well adjusted, and well cared for.

Although the public has an interest in pregnancy, it is an individual mother who makes the decisions about prenatal or pre-implantation testing,[119] as well as decisions about how she will behave and to what risks she is willing to subject herself and her fetus. These individual decisions create reverberations for the broader public. For instance, some disability rights activists argue that we are all diminished by a world in which it is acceptable to abort a fetus because tests indicate it would develop into a child with a disability.[120] Certainly the public shoulders the consequences when a woman bears a child she is unwilling or unable to provide care for, leaving the child to become a ward of the state. So, although we characterize procreation as a private right, many of the decisions made within this realm are legitimately subject to public scrutiny and perhaps some level of state regulation.

It is also the case that the state has an important role to play as parens patriae in protecting and caring for those who are incapable of looking after their own interests, especially children.[121] This state interest in protecting children has been extended to an interest in protecting future children and potential life.[122] States have used this broad interest to justify actions like appointing a legal guardian for a fetus when a pregnant woman is perceived to be engaging in behavior that presents a danger to her fetus,[123] confining a drug addicted pregnant woman during the duration of her pregnancy, [124]and ordering a Caesarean section for a woman who refused to follow the recommendations of her healthcare provider.[125]

---

[119] These decisions, of course, are not made in a vacuum. Some women may forego testing because of religious beliefs, ignorance, fear, or, in many cases, the lack of insurance or independent wealth to cover the costs of procedures.

[120] *See* Parens & Asch, *supra* note 41, at 3; Harriet McBryde Johnson, *Unspeakable Conversations*, N.Y. TIMES, Feb. 16, 2003, § 6, at 50.

[121] *See, e.g.*, Reno v. Flores, 507 U.S. 292, 317 (1993); Santosky v. Kramer, 455 U.S. 745, 766 (1982); Parham v. JR, 442 U.S. 584, 605 (1979).

[122] Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833 (1992).

[123] Ryan v. Beth Israel Hosp. et al., 96 Misc. 2d 816 (N.Y. Sup. Ct. 1978) (holding that woman appointed as guardian *ad litem* for fetus could not continue in that capacity when fetus was stillborn); *cf. In re* Guardianship of J.D.S., 864 So. 2d 534 (Fla. Dist. Ct. App. 2004) (upholding trial court's refusal to appoint a guardian for a developmentally disabled woman's fetus); *In re* Steven S., 128 Cal. Rptr. 525 (Ct. App. 1981) (dismissing as moot appeal by mother whose fetus had been assigned a guardian during her pregnancy along with an order for confinement for psychiatric treatment for the then pregnant woman).

[124] Gallagher, *Collective Bad Faith, supra* note 83 at 343-33 (describing the case of Brenda Vaughn, a pregnant woman who tested positive for cocaine, who a judge subjected to

Women are subject to many types of legal regulation that exercise some measure of control over their pregnant bodies. Some states mandate that healthcare providers offer certain prenatal tests to all patients.[126] Cigarette packages contain an explicit warning that smoking may cause risks to a developing fetus. The law requires bars and restaurants to post prominent signs warning women of the risks posed to a developing fetus when a pregnant woman drinks alcohol.[127]

Some states have sought custody of a fetus when a pregnant woman was thought to be engaging in behavior that put her future child at risk thus using the family court system to set behavioral norms for pregnant women.[128] Many women have lost custody of a child, temporarily or even permanently, based on a positive toxicology screening at the child's birth, thereby revealing the child's exposure to illegal drugs *in utero*.[129].

Criminal courts are another site where mothers and future mothers may be judged and found wanting. The state's interest in and ability to regulate the choices of poor women and women of color is substantially shaped by race, gender, and income bias, all forces that work against the

---

a 180-day sentence in a check fraud case stating, "I'm going to keep her locked up until the baby is born").

[125] *In re* A.C., 533 A.2d 611 (D.C. Ct. App. 1987), *rev'd* 573 A.2d 1235 (D.C. Ct. App. 1990); Jefferson v. Griffin Spalding County Hosp. Auth., 274 S.E.2d 457 (Ga. 1981); *In re* Madyun, 114 Daily Wash. L. Rptr. 2333 (D.C. Super Ct. July 26, 1986); *In re* Baby Boy Doe, 623 N.E.2d 326 (Ill. Ct. App. 1994); Taft v. Taft, 446 N.E.2d 395 (Mass. 1983).

[126] *See, e.g.*, ALA. CODE § 22-10A-2 (1975); CAL. HEALTH & SAFETY CODE § 125055 (West 2006); 63 OKLA. STAT. tit. 63, § 1-562 (2006).

[127] ACOG reports that "Federal warnings about the need to abstain from alcohol use in pregnancy were first issued in 1984." ACOG Comm. Opinion, *At-Risk Drinking and Illicit Drug Use: Ethical Issues in Obstetric and Gynecologic Practice*, 112 OBSTETRICS & GYNECOLOGY 1449, 1454. Since 1989, "all packaged alcohol beverages sold in the United States" must bear a label warning of the risks of drinking alcoholic beverages while pregnant. JANET GOLDEN, MESSAGE IN A BOTTLE 74 (2005).

[128] Gallagher, *Collective Bad Faith*, *supra* note 83, at 353 ("Social service agencies around the country used positive drug tests on newborn infants' urine as grounds for moving to take custody of babies.") (citation omitted); Dorothy Roberts, *The Challenge of Substance Abuse for Family Preservation Policy*, 3 J. HEALTH CARE L. & POL'Y 72, 85-86 ("Removal of children because of maternal substance abuse has contributed significantly to the increase in numbers of poor Black children pouring into foster care. There is evidence that the system of detecting and reporting drug use during pregnancy, which leads to removal of newborns from custody of the mother, is rife with race and class bias.") (citations omitted).

[129] *See supra* note 82 and accompanying text.

interests of these women as mothers.[130] Women have been prosecuted in many states for prenatal drug use under child abuse statutes or statutes making it a crime to provide drugs to a minor, though to date South Carolina is the only state where prosecutions have resulted in conviction and, in some cases, very harsh sentencing.[131] This is an extreme example of controlling individual choices and decision-making while conveying strong messages and attempting to shape behavior through the force of law.

While there is no doubt that a pregnant woman does a disservice to her fetus by exposing it to illegal drugs, it is necessary to note the contradictions and omissions of how states deal with some pregnancy behaviors versus others that may pose equal if not greater risk to a growing fetus. Cigarette smoking poses recognized risks to a developing fetus.[132] Abuse of some prescription drugs can be detrimental to a fetus, but there is no documentation of hospitals setting up programs to discover and arrest women who engage in this type of drug abuse during pregnancy in the same way that a South Carolina hospital created such a program to catch pregnant women who abused illegal drugs while pregnant.[133] There is slight evidence

---

[130] *See, e.g.*, Gallagher, *Collective Bad Faith*, *supra* note 83, at 352-55; ROBERTS, *supra* note 79.

[131] Nat'l Advocs. for Pregnant Women, S.C.: Leading The Nation in the Prosecution of Pregnant Women, July 17, 2006, http://advocatesforpregnantwomen.org/issues/punishment_of_pregnant_women/south_carolina_leading_the_nation_in_the_prosecution_punishment.php; Cynthia Dailard & Elizabeth Nash, *State Responses to Substance Abuse Among Pregnant Women*, GUTTMACHER REP. ON PUB. POL'Y, Dec. 2000, at 3, *available at* http://www.guttmacher.org/pubs/tgr/03/6/gr030603.pdf (discussing various state strategies for dealing with drug using pregnant women including criminal prosecutions); *cf.* Tamar Lewin, *Detention of Pregnant Woman for Drug Use Is Struck Down*, N.Y. TIMES, Apr. 23, 1997, at A16 (discussion civil detention of a drug using pregnant woman).

[132] The Centers for Disease Control (CDC) asserts that women who smoke during pregnancy are "about twice as likely to experience premature rupture of membranes, placental abruption, and placenta previa during pregnancy." CDC, Tobacco and Pregnancy, http://www.cdc.gov/reproductivehealth/tobaccousepregnancy/index.htm (last visited July 29, 2008). Babies born to pregnant women who smoke "[h]ave about 30% higher odds of being born prematurely[, a]re more likely to be born with low birth weight (less than 2500 grams or 5.5 pounds), increasing their risk for illness or death [, w]eigh an average of 200 grams less than infants born to women who do not smoke[, and a]re 1.4 to 3.0 times more likely to die of Sudden Infant Death Syndrome (SIDS)." *Id.*

[133] Ferguson v. City of Charleston, 532 U.S. 67 (2001) (holding that involuntary drug testing program run by Medical University of South Carolina violated the Fourth Amendment).

that excessive exercise can cause miscarriages early in a pregnancy,[134] but no one arrested Paula Radcliffe of Great Britain when she trained for a marathon throughout her pregnancy, though her feat certainly did inspire some concern about the conditions under which other women might safely follow her example of maintaining fitness during pregnancy.[135] And, when women carry multiple pregnancies to term, in spite of the clear risk to their future children engendered by gestating large numbers of babies at once, they become media celebrities, not pariahs.[136]

It is not coincidental that within the universe of potentially harmful behavior in which pregnant women may engage, it is illegal drug use, especially the use of crack cocaine, a drug frequently associated with African-American women,[137] that leads to widespread commentary, unconstitutional infringements on rights,[138] and criminal prosecutions.[139] Many women engage in behavior during pregnancy with potential for serious repercussions for a fetus, yet the category of behavior that the law identifies for its most stringent sanctions is narrow and biased. Additionally, singling out mothers who suffer from drug addiction and applying criminal sanctions arguably creates perverse incentives for drug-addicted mothers to avoid the medical care and substance abuse treatment that they need.[140] In

---

[134] M. Madsen et al., *Leisure Time Physical Exercise During Pregnancy and the Risk of Miscarriage: A Study Within the Danish National Birth Cohort*, 111 BJOG: AN INT'L J. OF OBSTETRICS & GYNAECOLOGY 1419 (2007) (finding some correlation between vigorous exercise in early pregnancy and an increased risk of miscarriage).

[135] Nine months after giving birth, Paula Radcliffe, an elite runner, won the New York City Marathon. Ms. Radcliffe trained for the marathon throughout her pregnancy. Katherine Hobson, *Marathon Winner Ran Throughout Her Pregnancy. Should You?*, U.S. NEWS.COM, Nov. 6, 2007, http://health.usnews.com/articles/health/2007/11/06/marathon-winner-ran-throughout-her-pregnancy-should-you.html; Gina Kolota, *Training Through Pregnancy to Be Marathon's Fastest Mom*, N.Y. TIMES, Nov. 3, 2007, at A1..

[136] Michele Goodwin, *Prosecuting the Womb*, 76 GEO. WASH. L. REV. 1657 (2008).

[137] Dorothy Roberts, *Making Reproduction a Crime, in* THE REPRODUCTIVE RIGHTS READER 368, 369 (Nancy Ehrenreich ed., 2008) (noting the increasing numbers of women being indicted for criminal offenses based on illegal drugs use during pregnancy and describing the majority of these women as "poor and Black" and "addicted to crack cocaine.").

[138] *Ferguson*, 532 U.S. at 67.

[139] *See, e.g.*, Whitner v. State, 492 S.E.2d 777 (S.C. 1997).

[140] The ACOG Ethics Committee has written:

the wake of such uneven application of the law, it is critical to consider how many types of bias might blossom in a state committed to regulating PGD, a topic expounded upon in the last section of this Article.

E. Regulating Abortion

Beyond pregnancy regulation in family courts and criminal courts, the law wields enormous power over a woman's pregnancy choices through its control over abortion. This control provides a particularly poignant comparison to how states could justify close regulation of PGD. Of course, abortion and the use of PGD are not identical practices, but they are often thought of in a similar vein[141]. The most critical and obvious difference between the two practices is that abortion takes place after a pregnancy is confirmed, at which point the embryo has already developed into a fetus.[142]

> A difficult dilemma is created by state laws that require physicians to report the nonmedical use of controlled substances by a pregnant woman or that require toxicology tests after delivery when there is evidence of possible use of a controlled substance (e.g., Minnesota statutes 626.5561 and 626.5562). Although such laws have the goals of referring the pregnant woman for assessment and chemical dependency treatment if indicated and of protecting fetuses and newborns from harm, these laws may unwittingly result in pregnant women not seeking prenatal care or concealing drug use from their obstetricians. Although it is always appropriate for a physician to negotiate with a patient about her willingness to accept a medical recommendation, respect for autonomy includes respect for refusal to be screened.

ACOG Comm. Opinion, *supra* note 127 at 1453.

[141] *See, e.g.*, A.L. Bredenoord et al., *Dealing with uncertainties: ethics of prenatal diagnosis and preimplantation genetic diagnosis to prevent mitochondrial disorders*, 14 HUM. REPROD. UPDATE 83-94 (2008) (discussing the ethical implications of prenatal and preimplantation diagnosis of mitochondrial disorders in an embryo or fetus); Kathy L. Hudson, *Preimplantation genetic diagnosis: public policy and public attitudes*, 85 FERTILITY & STERILITY 1638, 1638 (2006) (noting that debates about reproductive technology, including PGD, are mired in the vitriol surrounding the abortion debate).

[142] Emergency contraception, also known as Plan B or the morning-after pill, is a form of birth control pill taken after sex but before an embryo attaches to a woman's womb. William Saletan, *The Birds and the Plan B's*, WASH. POST, Apr. 2, 2006, at Outlook B03. As William Saletan points out, some claim that Plan B "causes abortions. Some say it only prevents them. And the dirty little secret is, nobody really knows." *Id.* The author points out that groups like Americans United for Life, the American Life League, and Concerned Women for America oppose Plan B as an abortion technique whereas Planned Parenthood and the Population Council claim that the drug has no effect on implantation and therefore cannot be classified as an abortion procedure. *Id.*

PGD, in contrast, must take place before an embryo is transferred into a woman's womb, where a pregnancy may or may not result. However, some commentators speak of abortion and PGD in the same breath because PGD is frequently configured as a way to avoid the costs and potential trauma of an abortion occasioned by a fetal anomaly.[143] Thus, both procedures are important tools for allowing a woman to exercise control over her reproductive capacity.

At the same time, both procedures inspire a substantial amount of moral ambiguity and conflict. Although many do not place an embryo and a fetus on identical moral ground and think that both assume less moral status than an existing child or woman, this is an opinion and not a fact. Others, including former President George W. Bush, consider the destruction of embryos as on par with an abortion in that both events result in the death of a child.[144] Further, it has been suggested that PGD may be even more morally suspect than abortion because it generally involves the creation of many embryos with the understanding and expectation that at least some of them will not be selected for implantation. PGD, therefore, presupposes an outcome of excess embryos and potential destruction in a way that is different from a woman who resorts to abortion only when she learns unwanted news about a fetus.[145] In this way, it is possible to see how the

[143] Unlike prenatal tests like amnio and CVS, "PGD, as currently practiced, has the advantage that the embryo is never in the mother's oviduct or uterus prior to the diagnosis. Thus, neither a physical awareness nor a psychological bonding to a developing fetus is present. In this context, PGD provides an option for an at-risk couple who want to avoid pregnancy termination." Tasca & McClure, *supra* note 16, at 11.

[144] In a 2001 press conference touting the benefits of "embryo adoption," President Bush spoke of the need to "ensure that our society's most vulnerable members are protected and defended at every stage of life." At several points in the speech that followed, the president reiterated his administrations opposition to stem cell research that involved the destruction of embryos, which the president clearly equated with the destruction of "human life." He remarked, "[T]here is no such thing as a spare embryo. Every embryo is unique and genetically complete, like every other human being. And each of us started out our life this way. These lives are not raw material to be exploited, but gifts." Priests for Life, President Discusses Embryo Adoption and Ethical Stem Cell Research (May 24, 2005), http://www.priestsforlife.org/news/05-05-24bushstemcellresearch.htm Unsurprisingly, Pope Benedict XVI has also declared that there is no moral distinction between a pre-implantation embryo and a post-implantation embryo. The Pope has declared, "The Magisterium of the church has constantly proclaimed the sacred inviolable character of every human life, from its conception to its natural end. . . . This moral judgment is valid at the very beginning of life of an embryo, before it is implanted in the womb of the mother, who will care for it and nourish it for nine months until the moment of birth . . . ." Nicole Winifield, *Pope: Embryos Deserve Right to Life*, ORLANDO SENTINEL, Feb. 28, 2006, at A6.

[145] As Jeffrey Botkin explains:

politics of PGD may for some be hopelessly entwined with the politics of abortion. This makes a discussion of state regulation of abortion and the justifications for such regulation relevant to a discussion of future regulation of PGD.

In *Planned Parenthood of Southeastern Pennsylvania v. Casey*,[146] the Supreme Court made it clear that the state interest in life begins at the earliest stages of pregnancy. From the start of a pregnancy, "the State has legitimate interests . . . in protecting the health of the woman and the life of the fetus that may become a child."[147] Even so, prior to fetal viability, a state "may not prohibit a woman from making the ultimate decision to terminate her pregnancy."[148] Further, a state may not impose an undue burden upon a woman's right to end a pregnancy.[149] A burden becomes undue, according to a portion of the opinion to which only the three-justice bloc of O'Connor, Kennedy, and Souter signed on, when a regulation's "purpose or effect is to place a substantial obstacle in the path of a woman seeking an abortion before the fetus attains viability."[150]

In its most recent abortion decision, *Gonzales v. Carhart*, the Court purported to uphold the framework of *Casey* and its balance between the woman, the state, and the fetus, and determined that states could ban a second trimester abortion procedure known by its opponents as a "partial

---

> For those who hold the conservative position, PGD will be seen as *more* ethically problematic than traditional prenatal diagnosis. PGD requires the creation of numerous embryos for each live birth produced. In a recent report by Ao et al., twelve couples utilized PGD to screen for CF. The couples produced 137 embryos, of which 26 were transferred to a woman's uterus and 5 births resulted. The loss of prenatal life was substantially greater through PGD than would have resulted had the twelve at-risk couples pursued traditional prenatal diagnosis and selective termination. Clearly, PGD does not resolve the ethical concerns in prenatal diagnosis for many who have fundamental objections to abortion—indeed, it makes the situation considerably worse.

Jeffrey R. Botkin, *Ethical Issues and Practical Problems in Preimplantation Genetic Diagnosis*, 26 J.L. MED. & ETHICS 17, 21 (1998).

[146] Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833 (1992).

[147] *Id.* at 846.

[148] *Casey*, 505 U.S. at 879 (plurality opinion).

[149] *Id.* at 878 (Section IV of plurality opinion, which does not announce the Court's opinion).

[150] *Id.*

birth abortion."[151] In upholding a federal ban on these procedures, writing for a divided Court that had undergone important personnel changes since the 1992 *Casey* decision, Justice Kennedy wrote, "[t]he government may use its voice and its regulatory authority to show its profound respect for life within the woman. . . . A central premise of [*Casey*] was that the Court's precedents after *Roe* had 'undervalue[d] the State's interest in potential life.'"[152]

Justice Kennedy reiterated that the three premises of *Casey* must "coexist" and noted the importance of the third premise which was

> [T]hat the State, from the inception of the pregnancy, maintains its own regulatory interest in protecting the life of the fetus that may become a child . . . . Where it has a rational basis to act, and it does not impose an undue burden, the State may use its regulatory power to bar certain procedures and substitute others, all in furtherance of *its legitimate interest in regulating the medical profession in order to promote respect for life, including the life of the unborn.*[153]

Importantly, the *Carhart* Court took pains to explain why the government could single out one procedure to be banned, while not eliminating other procedures that would still be used to terminate pregnancies in the second trimester. Justice Kennedy rationalized the decision based on the perception that:

> [T]he type of abortion proscribed by the Act requires specific regulation because it implicates additional ethical and moral concerns that justify a special prohibition. Congress determined that the abortion methods it proscribed had a "disturbing similarity to the killing of a newborn infant," and thus it was concerned with "draw[ing] a bright line that clearly distinguishes abortion and infanticide." The Court has in the past confirmed the validity of drawing boundaries to prevent certain practices that extinguish life and are close to actions that are condemned.[154]

---

[151] 127 S. Ct. 1610 (2007).

[152] *Id.* at 1633 (citing *Casey*, 505 U.S. at 873).

[153] *Id.* (emphasis added).

[154] *Id.* at 1633-34 (citations omitted).

A state's right to draw lines and make choices about when to condemn a medical procedure is a central consideration in the context of pre-conception decision-making. Some may see hypocrisy where a state seeks to limit or forbid access to procedures before embryo implantation but does not seek limits on prenatal procedures that will reveal similar information and perhaps result in the termination of a pregnancy. The distinction drawn by the *Carhart* Court helps to rationalize regulation of PGD even without regulation of prenatal decision-making by accepting that the legislature can end the particular way a practice happens even if it cannot ban the practice altogether.

In addition to interests in fetal life and the integrity of the medical profession, abortion jurisprudence implicates concerns about the physical and psychological health of women. Post-*Casey* and pre-*Carhart*, it seemed clear that a state could not place significant restraints on a woman's access to abortion, including banning certain procedures, without including an exception for the life and health of the mother.[155] In *Carhart*, however, the Court allowed the federal partial birth abortion ban to stand, though it lacked an exception for the health of the mother. The Court reasoned that in the context of the facial attack on the law, the lack of medical certainty about whether the Act's prohibition would ever impose significant health risks on women did not prevent Congress from acting.[156] Additionally, the Act did not forbid all second-trimester abortion procedures, but only one type of procedure.[157]

The question of how to define and measure health in the context of abortion resonates in the context of regulating PGD, as a result of the Court's endorsement of women-protective rationales for reducing reproductive choices. In *Gonzales*, the Court discusses the risk that physicians will not fully inform women of the nature of the banned second trimester abortion procedure, thereby depriving women of fully informed consent.[158] The Court suggests that there might be significant mental health consequences for a woman who later comes to regret her decision if she discovers the true nature of the abortion procedure after it has been performed.[159] The opinion concludes that"[t]he State's interest in respect for

---

[155] *Id.*; *see also* Stenberg v. Carhart, 530 U.S. 914 (2000).

[156] *Gonzales*, 127 S. Ct. at 1635-39.

[157] *Id.* at 1637.

[158] *Id.* at 1633-35.

[159] *Id.* at 1634.

life is advanced by the dialogue that better informs the political and legal systems, the medical profession, expectant mothers, and society as a whole of the consequences that follow from a decision to elect a late-term abortion."[160]

The Court's clumsy attempts to protect women from their own potentially flawed decision-making and from unscrupulous reproductive healthcare providers who do not facilitate adequate informed consent raises serious red flags about how the Court configures women in discussions about abortion decision making. Writing prior to *Carhart* about South Dakota's attempt to pass a broad abortion ban, Professor Reva Siegel argues vigorously against the constitutionality of such women-protective denials of reproductive choice.[161] As Siegel notes, the South Dakota legislature that passed the ban relied heavily on the findings of a task force it had created a year earlier which reported that "women need protection from abortion because women are misled into having abortions, coerced into having abortions, and are being harmed by abortions."[162] Specifically, the report authors claimed that male partners and abortion providers mislead or coerce women into ending pregnancies.[163] Ultimately, the task force concluded:

> [I]t is simply unrealistic to expect that a pregnant mother is capable of being involved in the termination of the life of her own child without risk of suffering significant psychological trauma and distress. To do so is beyond the normal, natural, and

---

[160] Gonzales v. Carhart, 127 S.Ct. 1610, 1634 (2007) (portion of plurality opinion not announcing opinion of the Court).

[161] The state's abortion ban, deceptively titled "South Dakota's Women's Health and Human Life Protection Act," used both fetal and women-protective language to justify its broad scope. The law's explicit purpose was "to fully protect the rights, interests, and health of the pregnant mother, the rights, interest, and life of her unborn child, and the mother's fundamental natural intrinsic right to a relationship with her child." H.B. 1215, 81st Leg. (S.D. 2006).

[162] Reva B. Siegel, *The New Politics of Abortion: An Equality Analysis of Woman-Protective Abortion Restrictions*, 2007 U. ILL. L. REV. 991, 1008-09.

[163] REPORT OF THE SOUTH DAKOTA TASK FORCE TO STUDY ABORTION (Dec. 2005) 10, *available at* http://www.dakotavoice.com/Docs/South%20Dakota%20Abortion%20Task%20Force%20Report.pdf. The task force and legislature also relied on scientifically dubious claims about psychological and physical consequences of abortions, including a range of mental health disorders. *Id.* at 41-45. The task force further claimed that women who terminate a pregnancy have a greater likelihood to be drug addicted, experience problems in relationships, and have difficulty parenting. *Id.*

> healthy capability of a woman whose natural instincts are to protect and nurture her child.[164]

Fundamentally, women-protective rationales used to limit women's reproductive health choices are steeped in stereotypes about women's "natural" roles as mothers and protectors of children. Siegel explains that abortion bans "draw persuasive force from familiar stereotypes about women's agency. . . . In depicting women as lacking capacity to make independent decisions and justifying restrictions on women's choices as necessary to protect their welfare, [the South Dakota ban] perpetuates these ancient traditions of gender paternalism."[165] Siegel continues, "South Dakota treats women as impaired in their capacity to make life plans to the extent that their life decisions deviate from role expectations concerning women's obligations as mothers"[166] through the assertion that it is "so far outside the normal conduct of a mother to implicate herself in the killing of her own child."[167] For a woman to engage in this supposedly unnatural behavior, her physician must deceive her into "thinking the unborn child does not yet exist, and thereby induce her consent without being informed, or the abortion provider must encourage her to defy her very nature as a mother to protect her child."[168] In either case, according to Siegel, "this method of waiver denigrates the woman's rights to reach a decision for herself."[169] Professor Siegel concludes that restrictions on abortion access premised upon gender stereotypes could not withstand equal protection scrutiny, regardless of whether *Roe* remains good law.[170]

---

[164] *Id.* at 47-48.

[165] Siegel, *supra* note 162, at 1034.

[166] *Id.* at 1036.

[167] *Id.* at 1037 (citation omitted).

[168] *Id.* at 1013.

[169] *Id.* at 1037 (citation omitted).

[170] Siegel makes four primary points to buttress her claim that abortion bans are unconstitutional. First, she notes that the Court's equal protection jurisprudence forbids states from acting with a discriminatory purpose, whether that purpose is the sole reason for the action or simple a "motivating factor." *Id.* at 1041. Therefore, a state that claims a neutral interest in protecting fetal life could not justify a discriminatory abortion ban premised solely on sex-stereotyped claims of a need to protect women from themselves or deceitful healthcare providers. *Id.* at 1043. Second, although citizens can freely choose to "embrace traditional gender-differentiated family roles," the Constitution forbids the government from legislating to enforce these roles. *Id* at 1042. Third, she writes, the

Though Siegel grounds her argument in equal protection analysis, her objections to government attempts to legislate antiquated and restrictive gender roles apply just as forcefully in the context of pre-implantation decision-making. This is true to the extent that future regulations would be grounded in beliefs about women's decisional incapacity and that natural mothering instincts somehow impair a woman's ability to make decisions that will result in the death of a child or, in the context of PGD, the loss or destruction of an embryo. Unfortunately, in a post-*Carhart* world, arguments about the regressive gender implications of women-protective reproductive choice legislation appear to be on shaky ground.[171]

Based on precedents, states have taken myriad steps to regulate the practice of abortion. Twenty-four states mandate a delay, usually twenty-four hours, between a woman's initial visit with an abortion provider and her abortion.[172] Typically, these requirements ensure that a woman will make at least two trips to her healthcare provider's office in order to end her pregnancy.[173] Additionally, several states have specific informed consent requirements delineating particular information a woman must receive before she consents to an abortion.[174] States may require parental

---

Constitution restricts governmental regulation of women's roles through the control of pregnancy "whether we treat the regulation of pregnant women as facially neutral or sex-based. . . . Laws regulating pregnant women are unconstitutional if enforcing constitutionally proscribed views of women was a motivating factor in the law's enactment." *Id.* at 1043. Fourth, and finally, those cases that have allowed governmental discrimination between men and women "that recognize their different physical roles in reproduction do not authorize the state to enforce gender-stereotypical family roles." *Id.* at 1044.

[171] In dissent, Justice Ginsburg takes strong exception to the majority's use of "ancient notions about women's place in the family and under the Constitution" to justify depriving women "of the right to make an autonomous choice, even at the expense of their safety." Gonzales v. Carhart, 127 S. Ct. 1610, 1648-49 (2007) (Ginsburg, J., dissenting) (citations omitted).

[172] GUTTMACHER INST., AN OVERVIEW OF ABORTION LAWS 1 (2009), *available at* http://www.guttmacher.org/statecenter/spibs/spib_OAL.pdf

[173] Ctr. for Reprod. Rights, Access to Abortion: Mandatory Delay and Biased Information Requirements (July 1, 2003), http://crr.civicactions.net/en/document/access-to-abortion-mandatory-delay-and-biased-information-requirements.

[174] As described by the Center for Reproductive Rights:

> Most laws dictate that the counseling include the "probable gestational age of the unborn child" and "the medical risks associated with carrying her child to term." Many of these laws also require physicians to offer government-produced pamphlets, with photos or detailed descriptions of the fetus, and lists of agencies that "can assist her in carrying her

notification for minors seeking abortions, though they must include a procedure that allows a young woman to judicially bypass parental notification or consent.[175] More recently, some states have sought to require abortion providers to conduct ultrasounds to ensure precise calculation of gestational age prior to an abortion.[176] After fetal viability, states can ban abortions altogether as long as a woman can still choose to end a pregnancy that threatens her life and, perhaps, her health.[177]

More subtly, many states have TRAP (targeted regulation of abortion providers) laws, so-called by pro-choice advocates because they single out abortion providers for onerous, non-healthcare-related regulation that can substantially limit an abortion provider's ability to perform abortions.[178] States place strict requirements on who may be an abortion provider and in what type of facilities abortions can take place.[179] Most

---

> pregnancy to term." Women are often forced to listen to a lecture about the availability of medical assistance funds for prenatal care—but not abortion.

Id.; *see also* Chinué Turner Richardson & Elizabeth Nash, *Misinformed Consent: The Medical Accuracy of State-Developed Abortion Counseling Materials*, GUTTMACHER POL'Y REV. 6 (2006), *available at* http://www.guttmacher.org/pubs/gpr/09/4/gpr090406.html ("In some cases, the state goes so far as to include information that is patently inaccurate or incomplete, lending credence to the charge that states' abortion counseling mandates are sometimes intended less to inform women about the abortion procedure than to discourage them from seeking abortions altogether." *Id.*).

[175] *Id.* at 899-900.

[176] *See, e.g.*, ARIZ. REV. STAT. ANN. § 36-2301.02 (2008) (requiring ultrasounds to establish gestational age for any abortion performed after twelve-weeks gestation). In 2007, a Tennessee legislator proposed a bill that would have required the state to issue a death certificate for all aborted fetuses, a move that would have allowed for the identification of the names of women in the state who had abortions. Carol Lloyd, *Death Certificates for Aborted Fetuses*, SALON.COM, Feb. 15, 2007, http://www.salon.com/mwt/broadsheet/2007/02/15/fetal_laws/print.html.

[177] *Casey*, 505 U.S. at 846 (confirming "the State's power to restrict abortions after fetal viability, if the law contains exceptions for pregnancies which endanger the woman's life or health").

[178] CTR. FOR REPROD. RIGHTS, TARGETED REGULATION OF ABORTION PROVIDERS: AVOIDING THE TRAP (2003), *available at* http://www.reproductiverights.org/pdf/pub_bp_avoidingthetrap.pdf

[179] GUTTMACHER INST., *supra* note 174, at 1 ("[Thirty-eight] states require an abortion to be performed by a licensed physician, [nineteen] states require an abortion to be performed in a hospital after a specified point in the pregnancy, and [eighteen] states require the involvement of a second physician after a specified point.").

recently, many states have passed partial-birth abortion bans that closely track the language of the federal ban.[180] With respect to minors, multiple states require parental notification or consent, or a judicial bypass hearing before an adolescent may have an abortion.[181]

Some state requirements go further into the realm of seeking to make moral judgments about the abortion decision. For instance, a Pennsylvania physician commits a felony if she performs an abortion on a woman that is not "necessary."[182] To determine the necessity of an abortion, a physician may consider factors relevant "to the well-being of the woman" including her physical, emotional, or psychological condition, and her age.[183] The statute specifically forbids abortions "sought solely because of the sex of the unborn child."[184] In the post-*Roe* era, other states have passed, or attempted to pass, legislation aimed at regulating and limiting the circumstances under which a woman could opt to terminate a pregnancy. As one commentator notes, "states as diverse as Delaware and Texas have attempted in the past to limit abortions to cases of 'severe' or 'grave' malformations or defects."[185] It is unclear how, if at all, Pennsylvania and other states enforce some of their most restrictive and burdensome statutes, but the very existence of the statutes offers insight into the types of requirements future regulators of PGD might choose to add to their statutes.

To understand the options and justifications for regulation of PGD, it is necessary to first delineate and understand the interests and rationales, constitutional and otherwise, that support existing regulation of pregnant women and parents. State regulation of PGD access could be rationalized using all of the tenets laid down in *Casey* and reiterated in *Carhart* justifying state regulation of abortion. At stake in the PGD debate are interests in life, specifically the potential independent life of a fetus, the

---

[180] CTR. FOR REPROD. RIGHTS, SO CALLED PARTIAL BIRTH ABORTION BAN LEGISLATION: BY STATE (2004), *available at* http://crr.civicactions.net/sites/default/files/documents/pub_bp_pba_bystate.pdf.

[181] GUTTMACHER INST., *supra* note 174, at 1 ("35 states require some type of parental involvement in a minor's decision to have an abortion. 22 states require one or both parents to consent to the procedure, while 11 require that one or both parents be notified[,] and 2 states require both parental consent and notification.").

[182] 18 PA. CONS. STAT. § 3204a (2008).

[183] 18 PA. CONS. STAT. § 3204c (2008).

[184] *Id.*

[185] Charo & Rothenberg, *supra* note 47, at 110.

integrity of the medical profession, and, arguably, women's health. Also, state parens patriae power to act to protect children may extend from policing pregnancies and parents to policing the decisions of those who are seeking pregnancy or parentage. Although one would have to make a leap of faith to equate an embryo with a born child, this is a leap that many, including many of those who sit in our state legislatures, are quite willing to make.

Though some of the rationales for state action on behalf of children and fetuses will not be convincing in the context of pre-conception reproductive decisions, other justifications for regulation will still resonate even before the fetus exists. Given that the state undoubtedly has interests in life and potential life and the limitations of the constitutional rights to parent and procreate, states could begin to exercise much more control over the environment in which women make pre-conception decisions related to the use of reproductive technology, especially PGD.

III. PEERING INTO THE CRYSTAL BALL: THE REGULATORY FUTURE

If a legislative body thought it prudent and necessary to leap into the abyss and protect future children from mothering decisions being made prior to pregnancy, those lawmakers would face at least two significant dilemmas. First, what type of regulation is constitutional? Second, and, more fundamentally, what pre-conception embryo screening decisions merit praise and what decisions merit condemnation? This Part will focus on the first question and the next Part of this Article will engage the second inquiry.

At present in the United States, the law plays an extremely passive role in the regulation of reproductive technology generally and PGD specifically, and an extraordinary amount of normative uncertainty surrounds the practice.[186] No state appears to explicitly forbid the use of

[186] While the idea of close regulation of reproductive technology has not yet found a strong foothold in the United States, there are many international models of such regulation that could serve as inspiration to American legislators. For instance, in the United Kingdom, the Human Fertilisation and Embryology Authority (HFEA), licenses all fertility clinics and dictates the limits of their use of technology for the purpose of providing reproductive healthcare and/or conducting embryo research. HFEA, FAQs About the HFEA, http://www.hfea.gov.uk/en/385.html (last visited Feb. 14, 2008). The HFEA's control is so close, in fact, that clinics in the United Kingdom cannot offer the use of PGD for any reason other than for medical purposes. HFEA, FAQs About Treatment, http://www.hfea.gov.uk/en/979.html#can_i_choose_the_sex (last visited Feb. 14, 2008). This effectively bans the use of PGD for sex selection unless the procedure is intended to avoid a sex-linked disease. Presently, the HFEA allows clinics to test for over fifty genetically

PGD except where it is defined as embryonic research.[187] As time passes and the use of PGD proliferates and advances, it will be substantially more difficult to fairly label the technology experimental or to consider all testing of embryos done in the context of providing reproductive services to be research, thus making statutes that focus on the technology as experimental more specious.

According to a 1998 article, understanding the probable direction of regulation of pre-implantation, post-embryo creation technologies such as PGD requires reviewing legislation that purports to regulate embryo research, "fetal research, IVF, tissue or organ transplantation, and payment for embryos."[188] According to the article, a mere ten states had laws in the late 1990's to regulate research or experimentation on human embryos.[189] The study found that four states specifically exempted genetic screening such as PGD from broad bans on embryo research.[190] In five other states, PGD would violate a legislative ban on embryo research unless the technique could be shown to be beneficial or risk-free to the embryo.[191] Finally, in New Hampshire, the law would not allow implantation of an embryo that had been subjected to PGD if the procedure was deemed

---

detectable disorders, including early onset Alzheimer's disease, breast cancer: BRAC 1, cystic fibrosis, Huntington's disease, muscular dystrophy, and sickle cell anemia. HFEA, Examples of Licensed PGD Conditions, http://www.hfea.gov.uk/docs/PGD_list.pdf (last visited Feb. 14, 2008).

[187] Lori Andrews & Nanette Elster, *International Regulation of Human Embryo Research: Embryo Research in the US*, 13 HUM. REPROD. 1, 2 (1998).

[188] *Id.* at 2.

[189] Those states were Florida, Louisiana, Maine, Massachusetts, Michigan, Minnesota, North Dakota, New Hampshire, Pennsylvania, and Rhode Island. *Id.* at 2. In 2005, Massachusetts amended its law on experimentation with embryos specifically to alter the definition of fetus. Prior to the 2005 amendment, the law included an embryo within the definition of fetus. In 2005, the Legislature amended the law to read: "For the purposes of this section, 'fetus' shall include a neonate and an embryo, but shall exclude a pre-implantation embryo or parthenote as defined . . . ." MASS. GEN. LAWS ch. 112, § 12J (2007). Massachusetts is no longer a state where PGD might be forbidden by laws on human experimentation.

[190] These states were Massachusetts, MASS. GEN. LAWS ch. 112, § 12J (2007); Michigan, MICH. COMP. LAWS §§ 333.2685-333.2686 (2008); North Dakota; and Rhode Island. Andrews & Elster, *supra* note 187, at 2.

[191] These states were Florida; Louisiana, LA. REV. STAT. ANN. § 14:87.2 (2008); Maine; Minnesota; and Pennsylvania. Andrews & Elster, *supra* note 187, at 2.

research.[192] Other than in this small minority of states, physicians and patients are essentially without legal restraints when it comes to making decisions about testing and implantation of embryos in the course of providing reproductive health services intended to result in pregnancy and the birth of a child.[193]

This discussion that follows assumes that the constitutionally protected right to procreate encompasses a right to use available reproductive technologies,[194] including PGD. It is of course possible that in a future case, the Supreme Court may prove this premise false. However, no such case appears to be on the horizon of the Supreme Court docket. This assumption does not mean, however, that a state could not create constitutionally sound PGD regulations. Even within the context of procreation as a fundamental right, the law has never assumed that the right is unfettered. A state may dictate with whom people within the state can procreate through laws forbidding incest or statutory rape.[195] The government can impact procreative decisions made by low-income individuals by linking family planning choices to access to government benefits. With proper procedures in place, a state can authorize sterilization of people incapable of consenting to such a procedure. Although forcible

---

[192] Andrews & Elster, *supra* note 187, at 2.

[193] The lack of legal restraints does not mean that there are not other forces that impact the professional choices made by healthcare providers about when they are willing to use PGD. For instance, the Ethics Committee of ASRM has issued opinions on using PGD for sex selection for medical and non-medical reasons. Ethics Comm. of the Am. Soc'y for Reprod. Med., *Preconception Gender Selection for Nonmedical Reasons*, 75 FERTILITY & STERILITY 861 (2001); Ethics Comm. of the Am. Soc'y of Reprod. Med., *Sex Selection and Preimplantation Genetic Diagnosis*, 72 FERTILITY & STERILITY 595 (1999) [hereinafter *Sex Selection*]. Similarly, data suggests that most clinics have some measure of screening patients with whom they will work. Andrea D. Gurmankin et al., *Screening Practices and Beliefs of Assisted Reproductive Technology Programs*, 83 FERTILITY & STERILITY 61 (2005).

[194] ROBERTSON, *supra* note 57 at 39 ("Similarly, if bearing, begetting, or parenting children is protected as part of personal privacy or liberty, those experiences should be protected whether they are achieved coitally or noncoitally."). In a future article, tentatively titled, *Feel Like Making Babies: Mapping the Limits and Limitations of a Right to Procreate in a Post-Coital World*, I challenge this basic assumption but will use it to help move the present conversation forward.

[195] *See, e.g.*, ARK. CODE ANN. § 5-26-202 (2007) (defining the crime of incest as a felony offense); CAL. PENAL CODE § 285 (West 2007) (defining the crime of incest); HAW. REV. STAT. § 707-741 (2007) (defining incest as a felony); GA. CODE ANN. § 16-6-3 (2007) (defining the crime of statutory rape); IDAHO CODE ANN. § 18-1508 (2007) (defining the crime of lewd conduct with a minor under the age of sixteen).

sterilization is no longer practiced anywhere in the United States, a Supreme Court precedent upholding early twentieth century eugenics practices remains good law.[196] Additionally, federal regulation can impact the expanded use of reproductive technology by placing financial barriers on experimentation involving human embryos.[197] All of these are ways to limit the available range of procreative choices.

As discussed in the previous Part of this Article, regulation of PGD could draw inspiration from multiple paradigms for regulating reproduction or parenting. It is likely, however, that PGD regulation will follow closely in the footsteps of abortion regulation. First, PGD has a close connection to the abortion debate because it is focused on future children and potential existence, rather than actual existence. Also, like abortion, it involves relationships among the state, pre-mothers, future children, and healthcare providers. The courts have already set standards for how to balance these interests, in the abortion context. It would be surprising if courts were to ignore these precedents in deciding the legal issues raised by PGD regulation. Finally, it will be impossible to disentangle PGD from the larger societal conversations about the origins of life, the moral status of the embryo, parental responsibility, and the future of human reproduction. Though it has not and does not garner the political attention currently lavished on regulation of abortion, PGD is a future frontier in the culture wars because its regulation will suggest a change in what are considered appropriate limits on future regulation of abortion. If an embryo garners sufficient legal respect to warrant protection from manipulation, it is difficult to imagine how such respect cannot also be accorded to a developing fetus in ways that might allow for even closer regulation of a woman's right to seek an abortion.

With the abortion wars as precedent, the path to future PGD regulation will involve political litmus tests, religious fervor, and moral indignation. As a result, the regulation will vary on a state-by-state basis, it will be politically charged, and, like abortion legislation, much of it will be an obvious reflection of its authors' attempts to send political messages. Anti-abortion statutes are frequently intended to convey profound respect

---

[196] *See* Buck v. Bell, 274 U.S. 200 (1927).

[197] In 2001, President George W. Bush announced that the federal government would provide money for embryonic stem cell research only for those lines of stem cells already existing at the time of his announcement. This compromise decision has been widely received as creating a substantial financial barrier to the advance of embryonic stem cell research in the United States. Jessica Reaves, *Person of the Week: George W. Bush*, TIME, Aug. 9, 2001, *available at* http://www.time.com/time/pow/article/0,8599,170651,00.html.

for nascent life, condemn the choices of those who would end potential life in its earliest stages, and persuade women to choose not to end pregnancies. These same messages resonate in the context of pre-mothering decisions about refusing to implant embryos, leaving them in limbo, or allowing for their destruction.

Though it is possible to argue that the parental rights paradigm is an equally or more appropriate template for regulating PGD, that paradigm is significantly more problematic and its utilization would be less plausible to justify close regulation of PGD. Most critically, the parenting paradigm presumes the existence of a child. Although there are circumstances in which legislative bodies and courts have embraced the view of fetus as child, this is not a consistent interpretation of biological reality and many policymakers and jurists reject the attempt to conflate fetus and child. This debate is even less settled when it involves equating an embryo with a child. To invoke the fetus/embryo versus child debate in a discussion of potential regulation of PGD would not serve the interests of those who wish to place limits upon the practice. Instead, it is more politically expedient to argue that to regulate PGD is to regulate potential life in the same way that regulating abortion, particularly in the pre-viability stages, seeks to protect the potential of a developing fetus.[198]

The abortion analogy, though not perfect, is a helpful one because it allows for discussion of the ways in which states can curtail a practice that cannot or should not be wholly banned. Instead, within the realm of abortion, as discussed in the previous Part, various states have found ways to closely regulate the medical procedure so as to exercise significant control over who gets abortions, where those abortions take place, and who gets to perform them.[199] Through these mechanisms of control, a state can make an abortion decision more complicated and more burdensome for a woman so long as that burden is not undue.[200] So too, within the realm of PGD regulation, a state could seek to make decisions about using the technology more difficult for women and decrease access through control of who may perform the procedure and under what conditions.[201]

---

[198] *See* abortion discussion, *supra* notes 150-203 and accompanying text.

[199] *Id.*

[200] *See* Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833 (1992); Gonzales v. Carhart, 127 S. Ct. 1610 (2007).

[201] *See* abortion discussion, *supra* notes 150-203 and accompanying text.

A. Justifying State Regulatory Action: The Interests at Stake

Almost certainly, whatever regulation takes place to control decisions about using PGD to screen embryos would happen on a state level, as does the bulk of existing family and reproductive law. These types of decisions fall within the rubric of family law and it is almost exclusively the states, not the federal government, that tell us what we can do with our families.

First, it is necessary to articulate the state interests that would justify regulation of PGD. To regulate PGD, states could assert many of the same interests that justify regulation of abortion. The state has a parens patriae interest in protecting those who are helpless—a category that could include embryos.[202] As already mentioned, the Supreme Court believes that states have an interest in life, both born and unborn,[203] and that states can act to preserve life, even where such life is sustained via artificial mechanisms.[204] Further, states need not make any judgments about the value of a particular life. Instead, legislators may simply act to protect the sanctity of existence generally, without any concern or reference to the quality of that existence. These principles support a state assertion of a valid interest in limiting the choices that can be made when using PGD, in order to better inform the parental decision-makers, protect future children, and regulate the practice of medicine.

In the PGD context, states can also claim an interest in preventing discrimination based on gender or disability. In the same way that states pass anti-discrimination legislation that protects those with disabilities from harmful discrimination in employment and in accessing public accommodations, a state could extend the antidiscrimination rationale to protect the least powerful among us, embryos, from being unfairly and discriminatorily denied access to life. Some feminist scholars have rightfully raised concerns about the gender implications when women choose to abort girl fetuses because of a cultural preference for boys.[205] Disability activists and their allies have forcefully argued that both prenatal

---

[202] *Casey*, 505 U.S. at 846.

[203] *Id.*

[204] Cruzan v. Dir., Mo. Dep't of Health, 497 U.S. 261, 281 (1990) ("We do not think a State is required to remain neutral in the face of an informed and voluntary decision by a physically able adult to starve to death.").

[205] *See, e.g.*, MARY ANN WARREN, GENDERCIDE: THE IMPLICATIONS OF SEX SELECTION (1985).

screening of a fetus and pre-implantation screening of an embryo can be forms of disability discrimination with a pernicious impact on those living with disabilities in a society in which they are often misunderstood and regularly face inadequate support services and low expectations for success and happiness.[206] State legislators could legitimately argue a strong interest in preventing this discrimination before pregnancy through informed consent requirements mandating that healthcare providers convey to women the consequences of choosing for or against a particular embryo or limiting the classes of disease or disability for which an embryo may be tested.

As discussed in the previous Part, states such as Pennsylvania and Louisiana already use existing laws regulating abortion and embryos to express views on morality, life, and the personhood status of a fetus or embryo. Louisiana's laws on embryos forbid a woman from using PGD to the extent that she would do so specifically to avoid the implantation of any embryos. That state's legislation if strictly enforced would require a woman to give up any right to her embryos and perhaps see them remain in permanent limbo because it is unlikely that "adoptive parents" would be found for an embryo that has been flagged as carrying a deadly or disabling genetic condition. Pennsylvania's abortion law takes a firm stance against abortion for purposes of sex selection and, if such a statute is constitutional, it might also be acceptable to forbid sex selection at an even earlier stage in the baby-making process.

States also have an interest in women's health and protecting the integrity of the medical profession.[207] Similar to the Court's rationale in *Carhart*,[208] a state could assert concern for a woman's psychological well-being when faced with the consequences of screening out a particular embryo. Similarly, the legislature could claim that regulation of PGD is warranted to avoid sanctioning eugenic practices detrimental to individuals and society and to shield physicians sworn to protect life from being forced to participate in practices that deny life.

Given the broad state interests in potential life, women's health, and the integrity of the medical profession, which are certainly important if not compelling, the options for regulating access to PGD are many. The lack of

---

[206] Parens & Asch, *supra* note 41, at 4-6.

[207] Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 846 (1992) ("[T]the State has legitimate interests from the outset of the pregnancy in protecting the health of the woman and the life of the fetus that may become a child.").

[208] Gonzales v. Carhart, 127 S. Ct. 1610 (2007); *see also supra* notes 181-186 and accompanying text.

a bodily integrity argument for a woman who has not yet transferred the embryo to her uterus arguably diminishes her interest in controlling the fate of those embryos and affords states even greater power to regulate how women use embryo screening technology.

States could seek to ban the use of PGD altogether, claiming that allowing the use of this technology violates a state's strong interest in protecting potential life from manipulation. To protect fetal and embryonic life[209] from discrimination based on disability or gender, states might limit access to PGD when it is used for purposes of invidious discrimination, thereby elevating some uses of technology above others. A state could allow PGD to screen out life-threatening ailments, but not for sex selection. States could create enhanced informed consent or mandatory counseling requirements patterned after existing abortion regulations to provide women with information that encourages them to "choose life,"[210] perhaps by touting the positives of embryo "adoption."[211]

States may mandate delays to ensure that choices are well informed and well considered. They may create significant reporting or licensing requirements that burden facilities and drive some of them out of the business of providing PGD or substantially raise the cost of the procedure. They may limit the category of professionals who can perform procedures and the facilities in which such procedures can be performed.

Finally, they might require the consent of a spouse or sperm source before a woman can have embryos that have been screened via PGD transferred to her uterus. Although spousal consent requirements have failed constitutional scrutiny in the abortion context,[212] it is not certain that they would also fail for the purpose of limiting access to PGD. Unlike abortion, PGD takes place before a woman is pregnant. In cases involving disputes

---

[209] The term "life" as used here is not meant to connote a view that an embryo is living in a manner comparable to a born child or a developing fetus.

[210] *Casey*, 505 U.S. 833. *See, e.g.*, 18 PA. CONS. STAT. § 3205 (creating specific informed consent requirements and a twenty-four hour waiting period for women seeking an abortion).

[211] The Nightlight Christian Adoptions agency administers a program called "Snowflake," which, according to the program's promotional materials, "is helping some of the more than 400,000 frozen embryos realize their ultimate purpose—life—while sharing the hope of a child with an infertile couple." Nightlight Christian Adoptions, *supra* note 65. The criteria for adoption at Snowflake are stringent. The program requires a homestudy "that includes screening and education." The donating family selects the adoptive family and the donating family will know if a child or children result from their donation.

[212] *Casey*, 505 U.S. 833.

over embryos, courts have determined that before a pregnancy takes place, progenitors stand on equal footing when it comes to making disposition decisions about an embryo.[213] It is easy to see how that rationale could be similarly applied in the context of a requirement of spousal consent for PGD.

Some states may choose to explicitly protect a person's right to use PGD. Legislation for this purpose might focus on current uses for PGD for which there is strong public support and consensus. One such point of agreement might be the use of PGD to screen out deadly diseases for which there is no available cure. An embryo that is known to carry genetic markers indicating a short and painful life for a child should almost certainly not be transferred, and the mother who would choose to transfer such an embryo would likely do so because of an objection to letting any embryo be discarded or otherwise destroyed. A state could choose to protect these types of decisions through an explicit statute or simply continue to avoid any legislation on the topic thereby allowing women to continue to make these choices without official interference and with tacit governmental approval.

Facially, all of the potential pieces of legislation suggested in the previous paragraphs are constitutionally viable even though none could unequivocally be said to protect the life or health of the future pregnant woman. Rather, the core claims for their constitutionality would rest on their impact on other constituencies: the embryo, by protecting it from destruction or manipulation sometimes on the basis of gender or disability discrimination, and the medical profession, by discouraging or forbidding physicians from applying a technique that ends or denigrates potential life. In promoting a particular view of fetal life, legislation would stake out a pro or con position on a given technology to encourage or discourage its use and protect or punish those who sought to use that technology.

As the discussion in this Part and its predecessor have shown, there is reason to believe that states can and will ultimately make the choice to regulate PGD and that they will pattern these new regulations after laws that already regulate the decision-making of parents, pregnant women, and those who are pursuing procreation. Importantly, there is little reason to think that these new regulations will be intended to or will have a completely neutral impact on a broad cross section of women. There is reason to fear that some women will suffer more in the face of regulation than others, and also that all women forced to conform their pre-conception decisions to the vagaries

---

[213] *See, e.g.*, Davis v. Davis, 842 S.W.2d 588 (Tenn. 1992); J.B. v. M.B., 783 A.2d 707 (N.J. 2001).

of conflicting state laws will, in some way, experience a negative impact from such regulation. The next Part of this Article addresses the potential negative consequences of PGD regulation for the women whose choices it governs.

IV. COMPLICATED "CHOICES" AND PUBLIC BODIES: WHY THE LAW WILL FAIL WOMEN

> "To most Americans, 'bad' mothering is like obscenity: you know it when you see it."[214]

> "In the future, many specialists believe, most in vitro fertilizations will be performed for fertile couples seeking genetic diagnosis, not as a treatment for infertility. But as it becomes easier to identify the possible consequences of more kinds of genes, the decisions for parents may become harder."[215]

Part II of this Article discussed the myriad ways in which states already control or influence decisions related to procreation and parenting, and began the work of explaining how the state's regulation of motherhood has not been even-handed or neutral—a discussion to which this Part will return. Part III of this Article then imagined how what the law already does in the realm of pre-conception, pregnancy, and parenting could be expanded to encompass maternal decision-making in the context of PGD. Using abortion regulation as a prime example, this Part determines that there are many ways in which states could constitutionally regulate the use of PGD. The current Part brings together the discussions of Part II and Part III. This Part focuses on practicality, political reality, and real-world consequences. If it is right to imagine a future in which the law plays a more overt role in controlling or shaping the choices that consumers make about accessing PGD, it is also right to imagine the consequences such legislation could have on those who are its subjects, and to suggest more appropriate avenues for contending with the moral and legal dilemmas attendant to PGD.

Regulation has the power to coerce and control, and therefore should not be taken lightly. This Part focuses on the consequences for women created by various regulatory choices, including how those regulatory choices interact with existing paradigms of evaluating and

---

[214] LADD-TAYLOR & UMANSKY, *supra* note 72, at 2.

[215] Amy Harmon, *Couples Cull Embryos to Halt Heritage of Cancer*, N.Y. TIMES, Sept. 3, 2006, at 1.

judging the pregnancy and parenting choices of women. The consequences extend to the expressive power of a state's regulatory choices, meaning how those choices impact the ways that mothers view themselves and their pre-conception decisions and how the larger society views and judges these decisions.[216] As state legislators use their positions of power to transmit messages through legislation, those decisions have consequences for the women about whom those messages are being transmitted and the many constituencies to whom those messages are addressed. State regulation of procreation and parenting already disparately impacts some women and frequently, intentionally or not, reinforces messages about bad versus good motherhood. It is highly probable that regulation of PGD will add to this over-utilized false dichotomy of good and bad motherhood in ways that do not serve women or their families well. In the end, then, although a state may have authority to limit access to PGD, it is unclear that creating limitations is an idea whose time has come, given the potential consequences of regulation.[217]

Considering the wide array of legislative choices outlined in the previous Part, and the limited capacity of this Article to address each possibility, this Part focuses on four possible regulatory futures that involve states opting to regulate access to PGD. The first scenario is one in which a state completely bans the use of PGD. The second scenario is one in which a state chooses to limit the use of PGD to screening out disease, including sex selection to eliminate sex-linked illnesses, banning the practice of PGD for non-disease linked sex-selection or for other traits not closely linked to health, such as weight, height, and eye color. The third scenario is one in which a state creates biased informed consent requirements in which women are offered pseudo-scientific information about the consequences of PGD for the women who use it and the embryos subjected to the procedure.

---

[216] Of course, the individual decisions that future mothers make about pre-implantation or prenatal testing can also have expressive content in ways that raise concerns on the part of people living with or writing about disability. Parens & Asch, *supra* note 41, at 13-17. Others complicate the expressive message of a decision to acquiesce to testing or to end a pregnancy that would result in the birth of a disabled child. *See* Mary Ann Baily, *Why I Had Amniocentesis*, *in* PRENATAL TESTING AND DISABILITY RIGHTS, *supra* note 41, at 64, 67-68 (arguing in part that a decision to end a pregnancy upon the discovery of disability need not convey a message that people with disabilities are less valuable or that parenting such a child is less rewarding than parenting a non-disabled child).

[217] The consequences of PGD regulation for women, children, men, healthcare providers, and the larger society are manifold and, by focusing solely on women, this Article does not mean to suggest that these other constituencies do not have significant interests at play.

Such requirements would exist, as they do in the abortion context, not primarily to inform but to encourage or discourage specific choices based on the biases of those creating the requirement. Finally, a fourth scenario will briefly posit a very different world in which state actors encourage or force the use of PGD to discourage procreation by those who could give birth to a child who will inherit genetic anomalies.

A. The Existing Regime: Silent Neutrality

To date, no state has taken a truly authoritative position on the use of PGD. Those states that have acted have focused on PGD as research even in an era when it has increasingly become more of an accepted therapeutic procedure than a research protocol. Given the generally lax or silent laws in most states, a woman who chooses not to implant an embryo of a future child with Down syndrome is no different from a woman who chooses not to implant an embryo of a future child with Tay-Sach's disease. These women are no different, in the eyes of the law, than one who wants a daughter and therefore opts not to implant any male embryos. The existing legislative message is largely one of neutrality or perhaps indifference. In either case, failing to regulate in the face of an existing industry which has formed standards of practice expresses tacit support for the status quo or for self-regulation by the industry. By choosing to regulate, however, the states will take both a moral and legal stance that removes their neutrality.

The power of regulatory messages has far-reaching potential. A state choosing to act at all in the face of nationwide legislative silence about PGD and other technologies would be making a substantial statement. In part, it would signify the removal of another layer of privacy in the realm of reproductive decision-making. Standing alone, this would be a statement of great significance by implying a failure on the part of professional and personal caretakers to make responsible decisions about appropriate uses of this technology. This is a negative judgment about both providers and consumers and strongly suggests that the profession's existing self-regulation efforts are inadequate,[218] though these efforts appear to exist, at

[218] Perhaps the most prolific source of self-regulation is that created by the American Society for Reproductive Medicine (ASRM). This non-profit organization requires its members to "demonstrate the high ethical principles of the medical profession, evince an interest in infertility, reproductive medicine and biology, and adhere to the objectives of the Society," ASRM, What's New,, http://www.asrm.org/whatsnew.html (last visited Oct. 10, 2007). The agency has "approximately 9,000 members representing every state in the union, the District of Columbia, and more than 100 countries. Of the 7,000 physician members, 80% are obstetrician/gynecologists and 7% are urologists. The other members include approximately 500 Ph.D.s and 1,200 allied health professionals such as nurses and

least in part, as a way to stave off government interference in the industry.[219] Such a judgment would also implicate the decision-making abilities of the women who opt to participate in embryo screening as a part of their path to motherhood.

B. Banning Choice

A broad ban on PGD would denounce the technology and those who would use it, acknowledging deep fear of negative repercussions for a society that allows the use of such technology. Although a ban would almost certainly be justified by those who would enact it by a desire to protect unborn children, in the form of embryos, the ban's message would not be confined to a call to save children. A child must be saved from

---

technicians." ASRM, Resources for Health Professionals, http://www.asrm.org/Professionals/ mainprof.html (last visited Oct. 10, 2007). In addition to providing ethics opinions on a range of issues related to reproductive medicine and the use of reproductive technologies, ASRM issues practice guidelines and can discipline members who fail to adhere to the standards of the organization.

Another vital component of the industry's self-regulation is the existence of SART, or the Society for Assisted Reproductive Technology. SART is "the primary organization of professionals dedicated to the practice of assisted reproductive technologies (ART) in the United States" and its membership consists of "over 392 member practices, representing over 85% of the ART clinics" in the United States. SART's mission is to "set and help maintain the standards for ART in an effort to better serve our members and our patients." SART, What is SART?, http://www.sart.org/WhatIsSART.html (last visited Oct. 10, 2007). SART also issues practice guidelines to which members are expected to adhere.

[219] Tellingly, on its website, SART bills itself as the "the governmental watchdog for ART" and notes that "in conjunction with the ASRM Public Affairs Office, members of SART have worked diligently to protect our patients and the practice of ART *from inappropriate external intrusion and regulation.*" SART, *supra* note 218 (emphasis added). Professor Debora Spar also notes:

> Political pressures also raise the ever-present specter of regulation. Because infertility treatments have a substantial medical component and often involve procedures that incite moral debate, the industry is a natural candidate for government oversight. In most parts of the world, such oversight is already in place. In the United States, by contrast, federal regulation is minimal, confined to a single piece of legislation (the Fertility Clinic Success Rate and Certification Act of 1992) without any means of enforcement. Still, as with insurance, the threat of regulation hangs heavily over the industry, prodding suppliers to conform to a fairly rigorous regime of self-regulation and often to act as if they were anticipating a regulatory response.

SPAR, *supra* note 31, at 34.

someone or something. In this scenario, legislative bodies seek to save children from wanton uses of technology by healthcare providers and the patients—typically women—making final decisions about implantation of embryos. In this case, it is both healthcare providers and parental decision-makers, especially pre-mothers, who represent the danger to children. They pose this danger by accessing technology for the purpose of denying the opportunity of life to embryos that fail to meet some test. A complete ban on the use of the technology singles out this group of potential parents and healthcare providers as posing a unique and pernicious danger to future children.

A ban also responds to concerns about how embryo screening impacts the society that allows screening. Some raise worries about creating an unnatural gender imbalance[220] or decreasing enthusiasm for providing services to those living with disabilities.[221] As for the first concern, it might be valid in some countries where it is already clear that gender bias against girls, sometimes coupled with close governmental control of child-rearing, leads to high abortion rates for female fetuses.[222] Even in the United States, there is some evidence that certain racial or ethnic groups, specifically those of various Asian origins, show a greater tendency to select for boys, especially after the birth of a female child or children.[223] Despite this data, the negative societal impact of this behavior will be muted because "Low fertility in the U.S. means that births are concentrated at lower parities, where sex ratios are closer to the biological norm. In addition, because Indians, Chinese, and Koreans make up 2% of the U.S. population, the effect on the breeding population sex ratio is small."[224] As for the second

---

[220] The President's Council on Bioethics explains:

> In considering the ethical implications of sex selection, we must attend especially to the social consequences not just of the *fact* of choice but of the *choices made*. For the private choices made by individuals, once aggregated, could produce major changes in a society's sex ratio, with profound implications for the entire community—and also its neighbors.

PRESIDENT'S COUNCIL ON BIOETHICS, BEYOND THERAPY 58 (2003).

[221] Parens & Asch, *supra* note 41, at 3, 6,

[222] PRESIDENT'S COUNCIL ON BIOETHICS, *supra* note 220 at 60-61 (describing imbalanced sex ratios in Venezuela, Yugoslavia, Egypt, Hong Kong, South Korea, China, Cuba, and Pakistan attributable to the practice of sex selection).

[223] Douglas Almond & Lena Edlund, *Son-biased Sex Ratios in the 2000 United States Census*, 105 PROCEEDINGS OF THE NAT'L ACAD. OF SCI. 5681-82, (Apr. 15, 2008).

[224] *Id.*

concern, decreasing the number of children born with disability or disease will only have a limited impact on the number of people living with disabilities given that the vast majority of disabled people become so over the course of life, rather than being born with a disability.[225] It may also be the case that reducing the number of babies or children in need of extensive and expensive care actually allows the society to pour greater resources into providing services for those who are living with disabilities.

C. Limitations on Use

Significantly limiting access to PGD by restricting its use to all disease screening or certain categories of disease, interferes significantly with a woman's autonomy and conveys deeply negative messages about the quality of women's pre-parenting decision-making. Intrusion into this private realm is not unprecedented and by analogy to other contexts it is possible to discern some of the individual consequences of social and legal condemnation of women's pregnancy or parenting decisions. As discussed in Part II, the state's control of mothering has not always served the interests of women or their children.

Any statute or regulation that denies women access to PGD based on judgments about the validity of a given use not only sends a message about the morality of choices, it interferes with the autonomy of those who would have used PGD for a purpose that is now forbidden or disdained. In so doing, the state continues a tradition of denying power to women, even over those things that have a significant impact on the lives that individual women and their families live. Adrienne Rich writes of the ways in which women assert power in systems of powerlessness, including by wielding power over children when they cannot wield power over the men in their lives.[226] In some circumstances, this grab for power can be negative as in when mothers lash out in violence or anger at their children. However, there are many more occasions when that use of power is positive. For instance, when a woman decides not only when and how she will become pregnant, but also what embryos she wishes to implant in creating her future children, she derives great personal power, as difficult as these decisions may be. Protecting a woman's ability to make choices about what risks and

---

[225] Only fifteen percent of people living with disabilities are born with those disabilities. Cornucopia of Disability Information (CODI), Disability Statistics, http://codi.buffalo.edu/graph_based/.demographics/.statistics.htm (last visited Aug. 2, 2008).

[226] *See generally* ADRIENNE RICH, OF WOMAN BORN: MOTHERHOOD AS EXPERIENCE AND INSTITUTION (1995).

circumstances she is willing to bear, both for herself and her future fetus, shows significant respect for a woman's right and ability to make autonomous choices. More importantly, it conveys a message of respect for the decision-making capabilities and sound pre-mothering choices of women.

As has been seen in the abortion arena, a state judgment about how women may make medical choices for themselves and about their pregnancies may rest upon antiquated notions of female frailty that serve no valid legislative purpose in this century, if in fact they ever served a useful purpose. Women do not need to be protected from difficult decisions and it is certainly not the case that only false or inadequate information would lead a woman to choose to use PGD to select embryos for implantation. In a world in which valid scientific research about the emotional outcomes and consequences of the use of PGD is lacking, it cannot reliably be argued that women who use this technology are at risk of psychological harm from which the state then seeks to protect them. The South Dakota abortion ban discussed earlier was based in part on the legislature's desire to protect women from the emotional consequences of what it characterized as deciding to ignore their natural mothering instincts and choose abortion. Similarly, PGD regulation premised upon the notion that women are incapable of making decisions about these tough issues—thereby justifying state interference to protect their welfare—is infantilizing and offensive, and potentially unconstitutional as such legislation would serve largely to "perpetuate[ ] . . . ancient traditions of gender paternalism."[227]

By regulating PGD, the law extends its reach not only to bodies that carry future persons but also to bodies that will at some time in the future carry a future person. Such regulation is problematic. In so legislating, states come dangerously close to reducing women to their reproductive capacity in a way that the Supreme Court has condemned.[228] As the Court wrote in *Casey*, "Women . . . have the talent, capacity, and right 'to participate equally in the economic and social life of the Nation.' . . . Their ability to realize their full potential . . . is intimately connected to 'their ability to control their reproductive lives.'"[229] Placing strict limits on PGD

---

[227] Gonzales v. Carhart, 127 S. Ct. 1610, 1034 (2007).

[228] "Thus, legal challenges to undue restrictions on abortion procedures do not seek to vindicate some generalized notion of privacy; rather they center on a woman's autonomy to determine her life's course, and thus to enjoy equal citizenship stature." *Id.* at 1641 (Ginsberg, J. dissenting).

[229] *Id.* at 1641 (citing Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 856 (1992)).

is an early step in controlling and limiting women's ability to control their reproductive lives. To place such limits explicitly adopts the position that there are responsible choices about using PGD, and disparages and discourages the choices of women who would use the technology in ways that the state decides are irresponsible. In this way, the state will again have mobilized the force of law to enforce its notions of the "good mother."

D. Forcing Information and Biased Consent Conversations

Enhanced informed consent requirements, though perhaps more innocuous than a total or partial ban, can have a deleterious impact on women and may limit access to technology for women by forcing them to listen to others' moral objections (potentially expressed as though it were scientific truth) to their medical and family planning decisions before they are allowed to follow through with those decisions. In the abortion context, counseling requirements, as derided by some critics, "introduce[ ] the opinions of the physician, the genetic counselor, and, in the case of counseling directives written by the state, the opinions of the state legislature and regulators as well."[230] Requirements of this sort may also be a tool of various interest groups that seek to limit access to abortion altogether or to discourage abortions that seek to end the existence of a fetus identified as carrying a range of disabilities.[231]

In states with particularly restrictive abortion laws, women are forced to listen to information that does not so much inform their choice as it informs them of the state's condemnation of their choice. Recently, in *Planned Parenthood Minnesota, North Dakota, South Dakota v. Rounds*,[232] the 8th Circuit reversed the grant of a preliminary injunction against the enforcement of a 2005 South Dakota enhanced informed consent law. The challenged law requires that a woman seeking an abortion sign a form indicating she has been informed that an abortion would "terminate the life of a whole, separate, unique, living human being,"[233] and that "the pregnant woman has an existing relationship with that unborn human being and that the relationship enjoys protection under the United States Constitution and

---

[230] Charo & Rothenberg, *supra* note 47, at 110.

[231] *Id.* ("The politics of the disability rights movement and the anti-abortion movement could well result in a rash of mandatory counseling provisions designed to discourage couples from using prenatal diagnosis for selective termination of pregnancy.").

[232] 530 F.3d 724 (8th Cir. 2008).

[233] S.D. CODIFIED LAWS § 34-23A-10.1 *as amended by* H. B. 1166 (2008).

under the laws of South Dakota."[234] Finally, the form indicates that "by having an abortion, her existing relationship and her existing constitutional rights with regards to that relationship will be terminated."[235]

PGD foes could use similar enhanced informed consent requirements to inject moral and religious values into discussions of the procedure. In so doing, they may intertwine church and state in ways that, although not unconstitutional, create a taint of religious influence that is unseemly. The discussions required by these statutes can be patronizing and misleading and they run the risk of harming the relationship between provider and patient.

A PGD enhanced informed consent regulation might require a woman to sign a form indicating that life begins at fertilization, that her embryos are life in an early form, or that if she opts not to implant any embryos or consents to their destruction, she is terminating life. First, such a requirement obviously contains moral and religious judgments about the status of the embryo with which the women or her care provider may disagree. Second, the requirement presumes that women have not thought through or do not understand the consequences of a decision to create embryos that might not be implanted. In either case, this requirement, like that in South Dakota's abortion law, does not seek to inform but to persuade and discourage in a way that minimizes women's capabilities.

E. Pulling Women Away from Technology

In taking steps to regulate by forbidding PGD or curtailing its uses, the state would use its coercive power to reinforce and reify certain mothering choices. History reveals that when it comes to sorting mothers into categories of good and bad, the state has not dealt an even hand. Income, sexual orientation, race, and marital status have all played a role in how the state rewards some mothers and faults others. For instance, when states remove children from the custody of a lesbian mother to protect the child from the mother's lifestyle[236] or refuse to allow same-sex partners to adopt the biological or adopted children of their mates,[237] they impart a

---

[234] *Id.*

[235] *Id.*

[236] *See, e.g.*, Bottoms v. Bottoms, 457 S.E.2d 102, 108 (Va. 1995).

[237] Lambda Legal Defense and Education Fund reports that only "about half of all states permit second-parent adoptions by the unmarried partner of an existing legal parent, while in a handful of states courts have ruled these adoptions not permissible under state laws." Lambda Legal Def. & Educ. Fund, Adoption and Parenting,

clear lesson that good parenting is hetero-normative parenting. Similarly, when states aim extremely harsh criminal and civil sanctions at low-income women of color who have taken illegal drugs while pregnant, the presumption of bad motherhood extends with unsurprising regularity to other low-income women of color, even in the absence of any alleged drug use. Regulating these intimate decisions by statute is one of the pernicious ways in which behavioral norms act as soft constraints on reproductive and parenting decision-making. Furthermore, these behavioral norms label certain women "bad mothers" based largely on characteristics such as race, marital status, class, or sexual orientation, though these characteristics should be irrelevant. Limitations on the use of PGD create a new category of bad mothers—those who would reject an embryo for "illegitimate" reasons.

Once states begin allowing PGD in some circumstances and not others, those laws will express support or disdain for a particular practice, and those who would access it, even if that practice were not wholly forbidden. The power to forbid a choice also conveys a message about the moral non-neutrality of that choice, creating societal pressure to avoid or embrace certain behavior.

In making pre-conception choices about embryo implantation, women assume a profound and sometimes life-altering decision-making role, even before they become pregnant. A woman could rationally choose not to implant an embryo with a genetic predisposition for a debilitating disability or life-threatening disease given the structural difficulties associated with childcare. The inherent difficulty of raising a child with a disease or disability is compounded by the lack of sufficient care and support resources for women raising children with disabilities. She may also have significant concerns about the quality of life for a child born with severe or life-threatening disabilities or a life-ending disease. Further, when a woman makes a reproductive choice, she makes an intimate decision about the limits of her body and her being. For instance, some women will choose to forego PGD or prenatal testing because they have already chosen to contend with whatever disability a child might have, while other women will seek to gather as much information as possible before or after initiating a pregnancy in order to make the reproductive decisions with which they are most comfortable. In either case, the role that the state plays in those decisions should be minimal and minimized.

---

http://www.lambdalegal.org/our-work/issues/marriage-relationships-family/parenting/ (last visited Oct. 10, 2007).

At the margins, the role that the law can or should play in controlling decisions about PGD becomes drastically more complicated and capable of negatively impacting the life choices of some women. Commentators frequently focus on an easy case, or at least an easier case, for legal and ethical support of PGD—when a woman chooses to access PGD to avoid a known genetic anomaly that will inevitably lead to a premature and perhaps painful death for a child. Conversely, highlighting one area of controversy exposes how difficult it is to find common ground and how truly slippery the moral and ethical arguments can be. Some women use PGD solely for purposes of sex selection with no underlying concern for disease or, in the very rare case, to actively create a child who will share a parent's disability. Even if one were to heap moral condemnation upon these women and their choices, the harder question is whether the law has an appropriate or necessary role in actually forbidding women from making such choices.

As it stands, the right to procreative freedom appears to embrace the decision of people with dwarfism to use PGD to screen out embryos that bear the genetic markers indicating that the child will be of average height.[238] Similarly, a deaf couple could use PGD to attempt to implant only embryos that would yield children who are deaf.[239] And, a woman who bore three boys could choose to bear the girl she has always wanted. These are individual medical treatment decisions based on parental preferences. Further, they are parental decisions made on behalf of future children, decisions that are almost certainly irrevocable for the children. Many people would disapprove of a mother's decision to deliberately create a child who is "too different."[240] Similarly, many see danger in allowing women to choose the sex of a child. These women would, to some, bear the label of "bad mothers" whose choices would be not only be morally condemned, but perhaps subject to legal prohibition.[241]

---

[238] Darshak M. Sanghavi, *Wanting Babies Like Themselves, Some Parents Choose Genetic Defects*, N.Y. TIMES, Dec. 5, 2006, at F5.

[239] *Id.*

[240] *Id.* (discussing the ethical questions inherent in a parent's decision to seek to create a child who shares her disability); *see also* Patricia E. Bauer, *The Abortion Debate No One Wants to Have*, WASH. POST, Oct. 18, 2005, at A25 (reporting that she frequently experiences negative judgments from others when they see her with her child who is living with Down syndrome).

[241] In the early 1990's, Bree Walker Lampley was a successful television news personality in Los Angeles. Ms. Lampley was living with a genetic condition called ectrodactyly, which causes the bones of the fingers and toes to fuse. When Ms. Lampley

Beyond any general distrust or concerns about the parenting abilities of women with disabilities, it is not difficult to imagine a legislator condemning the choice to intentionally create a child with a disability as starkly as some legislators have condemned the parenting choices of women who are drug users or who are poor with multiple children. Only a "bad mother," the argument would go, would deliberately create a child doomed to suffer from physical pain or discomfort or the psychological pain of ostracism, misunderstanding, and cruelty. Women who choose the sex of their children to satisfy a preference might be labeled selfish and petty, or worse. It would not be surprising for the state to wield its power to stop mothers from making choices presumed to cause physical or psychological harm to their children or to society.

These ethically challenging cases reveal the underlying hypocrisy and moral ambiguity of potential PGD regulation. It is suspect at best to suggest that there is an unbiased way for a state to determine some limited set of circumstances in which PGD is legally acceptable. A complete ban on the technology may be the most unambiguous choice to make but it also raises substantial and possibly insurmountable constitutional questions and limits the choices for women seeking pregnancy. Even a partial ban has substantial consequences for those who fall within its reach.

F. Pushing Women Toward Technology

Although denial of access to PGD is a concern, it is also conceivable that states would increase pressure on women to use PGD in order to decrease the potential burden on society that would be created by future children with disabilities. Regulation and law can inhibit choice in significant ways that do not actually proscribe or demand specific behaviors. For instance, by refusing to mandate insurance coverage for fertility treatments, a society can limit the pregnancy potential of infertile, low- or middle- income women. Similarly, the law can show disdain for certain groups such as by refusing to grant same-sex couples equal rights in the realms of adoption, foster parenting, or child custody.[242] The law can

---

became pregnant, she made it publicly known that she would not terminate her pregnancy when it was discovered that her fetus also ectrodactyly, because she considered the condition to be minor. Her decision was subjected to public criticism and condemnation. Parens & Asch, *supra* note 41, at 9.

[242] *See, e.g.*, Elizabeth Trainor, *Initial Award or Denial of Child Custody to Homosexual or Lesbian Parent,* 62 A.L.R.5th 591 (1998) (describing numerous cases in which courts have removed children from the custody of gay or lesbian parents). Lambda Legal Defense and Education Fund notes, "About half of all states permit second-parent adoptions by the unmarried partner of an existing legal parent, while in a handful of states

shape decision-making and inhibit choice in ways that are not explicitly articulated on the face of a given statute or regulation. The concern about PGD regulation is not simply one about what such regulation denies to women. There are also legitimate concerns about what societal pressures legislation might create.

Where state law allows PGD only for limited purposes related to diseases, women might find themselves subjected to undue pressure to test or screen. When the state begins imposing obligations on women to consider the welfare of future children it may push women to access newer and better technology as it becomes available, according to standards set by the state. As we become better at predicting unborn children's disabilities and disorders:

> [T]here will be the temptation to ask whether we as a nation have an obligation to future generations to minimize their burdens, both personal and economic, from the presence of physical or mental disorders among them. Further, if the decision is made that such an obligation exists, there will be the temptation to protect those generations through state interventionist policies. Though the politics of abortion and the right-to-life movement probably forestall drastic policies such as that adopted in China, numerous indirect pressures could be brought to bear. These range from public service messages, to mandatory genetic testing as a condition for the granting of a marriage license, to

---

courts have ruled these adoptions not permissible under state laws." Lambda Legal Def. & Educ. Fund, *supra* note 240. In 2007, the ACLU Lesbian, Gay, Bisexual and Transgender Project became involved in a Georgia case in which a family court judge removed a child from the home in which she had been living and thriving for a year, when he discovered that the proposed adoptive mother was a lesbian. ACLU, Hadaway v. Fowler-Dennard—Case Profile, http://aclu.org/lgbt/parenting/29566res20070502.html (last visited Nov. 5, 2007). Members of the Arkansas legislature recently tried to revive a ban on adoption and foster care participation by gay and or single persons after the state Supreme Court struck down a discriminatory 1999 policy of Arkansas's Child Welfare Agency Review Board following a seven-year battle. ACLU Press Release, ACLU Applauds Defeat of Anti-Gay Adoption and Foster Care Bill; Calls Defeat a Tremendous Victory for Arkansas Children (Mar. 27, 2007), *available at* http://aclu.org/lgbt/parenting/29208prs20070327.html. In 2008, Arkansas voters passed a ban on adoption and foster care by couples cohabiting outside of a valid marriage. Jon Gambrell, *Rural Arkansas Championed Adoption, Foster Ban*, YAHOO! NEWS, Nov. 6, 2008, http://news.yahoo.com/s/ap/arkansas_adoption; *see also In re* Adoption of Charles B., No. CA-3382, 1988 Ohio App. LEXIS 4435, at *2 (Ct. App. Oct. 28, 1988) ("In our opinion, the concepts of homosexuality and adoption are so inherently mutually exclusive and inconsistent, if not hostile, that the legislature never considered it necessary to enact an express ineligibility provision. . . . Accordingly, we cannot impute to the legislature an intention that announced homosexuals are eligible to adopt. It is not the business of the government to encourage homosexuality."), *rev'd* 552 N.E.2d 884 (Ohio 1990).

> differential insurance coverage in the semiprivate and public insurance markets.[243]

In other words, as screening becomes more widely available and more commonplace, a woman's choice to use such screening or forego its use becomes integrated into existing notions of what it means to be a "good" or "bad" mother. "Good mothers" take prenatal vitamins for months before even becoming pregnant to reduce the risk of fetal abnormalities such as spinal bifida. "Good mothers" stop smoking and refrain from being around people who are smoking. "Good mothers" eat properly. "Good mothers" breastfeed. "Good mothers" are married. "Good mothers" stay at home to care for their minor children unless they are poor and rely on public assistance, and then they should find jobs. And, at some point in the future, in some states, "good mothers" may be those who let nature take its course and eschew technologies that manipulate the higher plan. In other parts of the country, "good mothers" will use available technology to ensure that only the healthiest embryos are given an opportunity to become healthy children.[244] In a world of such extremes, it is women who will struggle to find an acceptable, unconstrained forum for decision-making as the various states attempt to channel them into particular decision-making norms.

By allowing women to screen out and discard supposedly unhealthy embryos, the state lets off the hook those women who have determined, for whatever reason, that they cannot or do not wish to parent a child with an illness or disability. These women, according to a state with such legislation, could consider themselves good mothers whose pre-pregnancy choice to avoid having an ill or disabled child is one worth protecting. Although, on the surface, this would seem to be a good thing for most women and almost certainly would be a great thing for many women, the possibility of detriment exists here as well. Once the law sanctions such choices it becomes possible that a woman will feel not only allowed but also compelled to submit to testing in order to avoid placing excessive burdens upon herself, her partner, her family, or, in some cases, the resources of the state. Joan Rothschild describes the deluge of negative reader reaction heaped on Anna Quindlen when she wrote in her New York

---

[243] Charo & Rothenberg, *supra* note 47, at 118.

[244] A healthy embryo does not guarantee the birth of a healthy child. Pregnancies are delicate and, sadly, some women have pre-existing health conditions or experience crises or accidents during pregnancy that cause injuries to a child in utero. However, the idea here is that women will feel pressure to start with the highest likelihood possible of having a healthy child.

Times column about her decision not to have an amniocentesis when she was thirty-five years old and pregnant with her third child.[245] As Martha Saxton writes, "Women are increasingly pressured to use prenatal diagnostic testing under a cultural imperative that undergoing these tests is the 'responsible thing to do.'"[246]

There are economic concerns that also come into play in a world in which women are given the message that acquiescence to testing is a measure of good mothering. To the extent that finances accurately gauge whether a woman should get pregnant and carry that pregnancy to term, the future might hold that those who cannot afford prenatal screening or pre-implantation screening should forego parenting. In this nation, there are already those who see no legal or ethical boundary to paying $300 to drug addicted women, recovering or not, in exchange for their use of long-term birth control or surgical sterilization.[247] There might, then, come a day when we pay women to engage in testing so as to avoid, when possible, the birth of children who cost too much—children whose conditions or diseases make them expensive to care for and whose parents will not be able to bear that burden without public assistance. To the extent that good motherhood is already intertwined with socioeconomic status, it is correct to worry about just how far our society is willing to go to protect women and children.

If the government can act so as to promote life, and we know that it can, it could also encourage women to choose "better" life for their children. Today, poor women struggle to find government funding for abortions,[248] in part because federal Medicaid funds may not pay for

---

[245] ROTHSCHILD, *supra* note 39, at 197.

[246] Saxton, *supra* note 4, at 157.

[247] Project Prevention, formerly known as Children Require a Caring Community, is a non-profit organization that provides cash incentives for women who are addicted to drugs or alcohol to use long-term or permanent birth control to avoid pregnancy. Project Prevention, http://www.projectprevention.org (last visited Nov. 1, 2008). A client who has a tubal ligation or uses Norplant will receive a payment of $300. Clients who choose Depo-Provera or an intra-uterine device (IUD) receive $75 every three months for a maximum payment of $300 maximum per year, but they can continue to receive these payments in the future if they maintain their birth control status. *Id.*

[248] Guttmacher Institute reports,

> Seventeen states use their own funds to pay for all or most medically necessary abortions for Medicaid enrollees in the state. [Thirty-two] states and the District of Columbia prohibit the use of state funds except in those cases when federal funds are available: where the woman's life

abortions. In the future, the federal government might deem it prudent to pay for a wide range of pre-implantation genetic testing on both mother and embryo to ensure that each pregnancy and each future child gets off to the best start. Although government intervention could not guarantee that nothing catastrophic might happen to a child in utero, it could make sure that each pregnancy began on the best foot possible. Indeed, government could strive to leave no future child behind. What good mother would refuse to participate in such a program?

The push to use technology to test for disease could also have a negative impact on the life experiences of women with disabilities and the larger community of all people living with disabilities. Allowing testing or screening for limited categories of disease conveys a strong message about how the state does or does not value the lives of people with disabilities.[249] As already discussed, many disability activists have raised serious concerns about the value placed on the lives of people with disabilities when women are not only allowed, but perhaps encouraged, to end or not even begin pregnancies that will lead to the birth of a person with disabilities. For these activists, academic exchanges about moral worth are a sideline to the serious question of whether their parents would have chosen life for them in a world with better access to pre-implantation and prenatal screening.[250]

The potential legislative scenarios described above, complete or partial bans on PGD, or non-neutral informed consent requirements, have significant potential consequences for the experiences of women and their families. Recognizing these consequences, it is critical for legislators to seriously contemplate whether this is an arena in which regulation is appropriate or necessary. Whether acting to ban all uses of PGD or allow some specific uses, legislative actions would increase the burdens of pre-mothering for some women either by placing undue restrictions on choices or by creating pressures to choose that might otherwise be less daunting. It is possible that PGD and other reproductive choices is an area where the law would do best not to operate at all or to tread with extreme caution and only after widespread consultation with a diverse group of affected parties.

---

is in danger or the pregnancy is the result of rape or incest. In defiance of federal requirements, South Dakota limits funding to cases of life endangerment only.

GUTTMACHER INST., *supra* note 174, at 1.

[249] Saxton, *supra* note 4, at 160.

[250] *See, e.g.*, Johnson, *supra* note 120.

G. Respecting Women by Avoiding Regulation

There may come a time when the use of PGD becomes so frightening and morally suspect that it would be irresponsible for regulators not to respond with controlling legislation. That time has not yet come, and it seems unlikely that it is in the near or even distant future. Societal, legal, professional, practical, and ethical pressures already exist to limit the uses of PGD. The physical, psychological, and financial burdens associated with the technology mean that it will not be put into broad use any time soon. There does not seem to be any significant waning interest in the "natural" reproduction involving heterosexual intercourse that produces most of the babies born in this country. Those who provide fertility services have bound themselves by professional standards and ethical precepts that strongly discourage dubious uses of technology.[251] Women are competent and shrewd decision-makers who can be trusted to make appropriate decisions about their medical care and family planning, when provided with good information. Furthermore, reacting against the technology will not prevent the use of PGD. It will only push the technology and those who can afford it to other nations with less restrictive laws.

Of the many personal and private decisions that individuals make during a lifetime, decisions about how to parent, when to parent, with whom to parent, and whom to parent are some of the most difficult and least amenable to being controlled or guided by legislative interference. Even getting past possible constitutional hurdles, the process of legislating the morality of testing and then rejecting certain embryos to manipulate procreation is a process far too rife with positive potential to unfairly and unjustly interfere with individual decision-making. Further, because regulating in the field of fertility has a disparate impact on women, choosing to legislate in this field creates particular burdens on the procreative choices of women and has dangerous potential to reinforce regressive stereotypes in ways that will not serve the larger interests of women and their families.

For now, the federal government and the states should avoid interfering in this realm in any significant way. At this juncture, the most prudent role for the state is to act as a collector of information so that concrete data can become available as to what practices are in play, who is using the technology, who is providing the technology, and the short and

---

[251] *See, e.g.*, *Sex Selection*, *supra* note 193; Ethics Comm. of the Am. Soc'y for Reprod. Med., *Human Somatic Cell Nuclear Transfer (Cloning)*, 74 FERTILITY & STERILITY 873 (2000).

long-term impacts of the technology on women who use it and children who are created by it. This is information that is presently in short supply. Gathering more data in a systemic and scientific way will go a long way toward helping both the industry and those who choose to regulate it to determine where, if anywhere, there are regulatory gaps that need filling. Providing funding for such research is a logical precursor to any call for regulation.

In a 2004 report, the President's Council on Bioethics bemoaned the lack of concrete information about the impact of assisted reproductive technologies on the children born with their aid and the women who use these technologies.[252] The Council also recommended more systemic collection of information about the use of reproductive technology, strengthening of the Fertility Clinic Success Rate and Certification Act, and increased oversight of the industry by professional organizations.[253] Importantly, despite acknowledging the potential benefits of Congressional action, the Council made few recommendations for legislation and described the legislative recommendations that it did make as "limited targeted measures" intended to remain operative for a period to allow "policymakers and the public" to "discuss the possible impact and human significance of these new possibilities and deliberate about how they should be governed or regulated."[254]

Despite the Council's recommendations, available information continues to be insufficient to truly understand the scope of the industry and its impact on those who reproduce with the aid of modern medicine. To regulate in the existing data vacuum is to regulate on feeling, not fact, and to elevate anecdotes and apocryphal lore to powerful and potentially damaging legislation. Gregory Stock encourages us to "[D]eal with actual rather than imagined problems [because] [i]f we write preemptive regulations based on vague fears rather than real occurrences, many benefits will pass us by."[255]

To stand back and let individuals and their healthcare providers work through the issues inherent in the uses of PGD is not to cede responsibility for pursuing the state's interests in women, children, or the medical profession. All of these interests can and certainly will continue to

---

[252] PRESIDENT'S COUNCIL ON BIOETHICS, *supra* note 27, at 208-09 (2004).

[253] *Id.* at 210-18.

[254] *Id.* at 218-19.

[255] STOCK, supra note 1, at 207.

be pursued through existing modes of control. The child welfare system, though flawed, will continue to be available to protect children from harm. Licensing and disciplinary bodies that regulate the medical profession can seek out and rein in healthcare providers who cause harm to patients or the profession. Tort law will remain as a backdrop to professional healthcare relationships between providers and patients and can step in to set limits where fissures appear. The fertility industry's use of PGD happens within a regulated structure even if PGD is not singled out for specific regulatory control.[256]

People will make decisions that make some others cringe or that offend the moral code of many, but that would be the case even if the law banned the use of PGD. Some rogue physician, in the United States or abroad, will almost certainly offer services that the law forbids; it is not possible to completely avoid this outcome. Again, in the words of Gregory Stock:

> No governmental body will wave some legislative wand and make advanced genetic reproductive technologies go away, and we would be foolish to want this. Our collective challenge is not to figure out how to block these developments, but how best to realize their benefits while minimizing our risks and safeguarding our rights and freedoms.[257]

Regulators, scholars, and society should support those women on the frontier who are making hard choices, encourage necessary research, and clamp down on rampant and obvious abuses.

CONCLUSION

Although states have shied away from close regulation or, in some cases, any regulation of the use of assisted reproductive technologies, such as PGD, regulation almost certainly will come and many varieties of regulation will survive the strictest constitutional scrutiny. The right to procreate is not unlimited, and many argue that some procreative choices harm society and individuals (existing or contemplated) and should therefore be completely circumscribed or at least controlled. Even if we cannot concretely assess all potential harms attendant to certain procreative

---

[256] *See* PRESIDENT'S COUNCIL ON BIOETHICS, *supra* note 27, at 46-75, 99-102 (describing various direct and indirect forms of regulating the uses of assisted reproductive technology generally and PGD specifically).

[257] STOCK, *supra* note 1, at 10.

choices, it is undeniably true that the state has legitimate interests in these choices that can be asserted through legislation. The task is to identify those state interests, evaluate their relative strengths as weighed against the accompanying infringements of the fundamental right to procreate, and draft legislation that does no more than respond to those interests.

Though lawmakers may be skeptical, people do not always need the force of law in order to do the right thing. Further, the law is not always capable of determining what is the right thing in a set of complicated and individualized circumstances. As state legislative and regulatory bodies begin to confront the ethical dilemmas raised by reproductive technology and their concerns about constitutional limitations posed by the right to reproductive privacy, there may be greater incursions into the reproductive decisions being made by women or couples in conjunction with their healthcare providers. If these laws follow the pattern of increasingly intrusive and frequently moral and faith based attacks on the right to abortion, PGD legislation will be problematic.

Laws regulating PGD may be intended to serve myriad purposes: displaying appropriate respect for nascent life, avoiding pernicious types of discrimination based on disability or gender, discouraging irresponsible pre-parenting choices, and even protecting state coffers. However, given the incredible moral ambiguity inherent in PGD and embryo selection, a long state history of flawed legislation of reproductive and parenting behavior, and the deeply private nature of all of these decisions and discussions, it seems impossible that all of these goals can be met and unlikely that any attempt to achieve them can be done well. The state can and should continue to enforce existing laws that protect patients, seek to prevent abuses in medical practice, and protect children from harm. However, it should not attempt to place limits on the use of PGD that serve little purpose other than to harshly judge women's choices and dismiss women's capabilities for making good decisions. It is at best unfair and at worst dehumanizing to ask women to bear the burden of society's fears about technology and the future of humanity by depriving them of choices about their own childbearing.

The process of selecting whose decisions and what decisions are worthy of condemnation is far too subjective to allow for broad legislation. There are moments when society must cede control and trust that women and families, in conjunction with sound professional guidance, societal and familial support, and their own counsel, will make decisions that accrue to their own benefit and, in so doing, bring benefit to those around them. At this juncture, trust must be placed in the small number of individuals who have the resources and wherewithal to subject themselves to significant

physical and financial discomfort to use PGD, and wait until sufficient data and understanding is available to legislate well, rather than legislating quickly.